

Numerons and Vision IAS

Psychology - Paper II IAS (Mains), 2012

Reference Material Support

Dear Aspirants,

Psychology as an optional for IAS Mains has come a long way since it started gaining popularity in the latter half of 90s. Claiming to be one of the most popular optionals, students from diverse backgrounds have fared better and better with Psychology in Civil Services Examination, mostly securing further rank improvements due course of time. A major turnaround came in 2008, when focus shifted on conceptual clarity with simplicity of expression. Year of 2009 saw the toughest questions set ever, while 2010 and 2011 framed a mixed bag of questions in both the papers. In an era when being unpredictable is a way to flex muscles, munching over the next move of UPSC might not prove a much parsimonious debate. A sense catching over the needs of time is to cover the entire syllabus, keeping in view the recent trends and latest developments relating to every topic of importance. Conceptual clarity has always been essential for a rank defining score so, not advisable to compromise on this front. Writing an answer with a fresh appeal and dynamic framework will keep one a step ahead.

This year, once again UPSC has been more inclined towards having an experimental approach in Psychology optional, especially Paper-I. Approximately, one third of the marks were allotted to statistical portion in the first paper. Much to the bewilderment of an average student, two-three questions were completely out of sync with the previous trend, most glaring examples should include Neisser's experiment and McCrary-Hunter 'invariance hypothesis'. One might have hard time reaching a logical conclusion behind this unconventional question framing strategy. Second paper was a sigh of relief but this could also be a 'contrast effect'. Being unpredictable might impression a fear of omnipotent, but here UPSC, better be called, setting an example of being directionless. Either of their strategy analysts might have been through manic episode upon being intimidated of institutional preference for a tough paper. Manic episodes could have potentially disastrous outcome, if coupled with self-indulgent pseudo intellectualism. Now a days, explanations are being sought for 'elegant' theories! Seems that some Shakespeare shaking spears in audio-visual merchandising of Psychology paper!!

Advise for students would be to get prepared for such rude shocks. This exam has potential to turn even a hardcore atheist start believing third forces! Not for it being mother of all examinations, but a bad mother!! Perceived reality of toughness here, could well be attributed to non-directional **stochastic processes** of selection and evaluation. Best strategy would still be to focus upon conceptual clarity and simplicity of expression. In response to Psychology paper this year, a detailed reference support material has been prepared that could get one thorough conceptual understanding of the questions framed. This is the second set of two drafts, covering Paper-II. Some of the questions have been referred to various scholarly articles and relevant studies, which are linked with downloadable files in PDF format. Those browsing it online need to just click over the links provided. For those with printed version can visit **Numerons** or **Vision IAS** website for this draft in PDF format with all the activated links. Hope, you would enjoy reading this.

Thanks and best wishes!

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Section - A

1. Answer the following in about 150 words:

12x5=60

(a) What do you understand by 'personality disorders'? Distinguish between schizoid personality disorder and schizophrenia.

TOPIC: *Psychological well being and Mental Disorders*
SUBTOPIC: *Schizophrenia and Delusional Disorders; Personality Disorders*
LEVEL: *Easy*
NATURE: *Fundamental*

REFERENCE:

PERSONALITY DISORDER

Personality disorders, formerly referred to as character disorders, are a class of personality types and behaviors that the American Psychiatric Association (APA) defines in terms of supportive psychotherapy as "an enduring pattern of inner experience and behavior that deviates markedly from the expectations of the culture of the individual who exhibits it". Personality disorders are noted on Axis II of the Diagnostic and Statistical Manual of Mental Disorders or DSM-IV-TR (fourth edition, text revision) of the American Psychiatric Association.

Personality disorders are also defined by the International Statistical Classification of Diseases and Related Health Problems (ICD-10), which is published by the World Health Organization. Personality disorders are categorized in ICD-10 Chapter V: Mental and behavioral disorders, specifically under Mental and behavioral disorders: 28F60-F69.29 Disorders of adult personality and behavior.

These behavioral patterns in personality disorders are typically associated with severe disturbances in the behavioral tendencies of an individual, usually involving several areas of the personality, and are nearly always associated with considerable personal and social disruption. Additionally, personality disorders are inflexible and pervasive across many situations, due in large part to the fact that such behavior is ego-syntonic (i.e. the patterns are consistent with the ego integrity of the individual) and are, therefore, perceived to be appropriate by that individual. This behavior can result in maladaptive coping skills, which may lead to personal problems that induce extreme anxiety, distress and depression.

The onset of these patterns of behavior can typically be traced back to early adolescence and the beginning of adulthood and, in rarer instances, childhood. General diagnostic guidelines applying to all personality disorders are presented below; supplementary descriptions are provided with each of the subtypes.

Diagnosis of personality disorders can be very subjective; however, inflexible and pervasive behavioral patterns often cause serious personal and social difficulties, as well as a general functional impairment. Rigid and ongoing patterns of feeling, thinking and behavior are said to be caused by underlying belief systems and these systems are referred to as fixed fantasies or "dysfunctional schemata" (cognitive modules).

SCHIZOID PERSONALITY DISORDER

Schizoid personality disorder (SPD) is a personality disorder characterized by a lack of interest in social relationships, a tendency towards a solitary lifestyle, secretiveness, emotional coldness and sometimes

(sexual) apathy, with a simultaneous rich, elaborate and exclusively internal fantasy world. SPD is not the same as schizophrenia, although they share some similar characteristics such as detachment or blunted affect; there is increased prevalence of the disorder in families with schizophrenia.

Signs and symptoms

People with SPD are seen as aloof, cold and indifferent, which causes some social problems. Most individuals diagnosed with SPD have difficulty establishing personal relationships or expressing their feelings in a meaningful way, and may remain passive in the face of unfavourable situations. Their communication with other people at times may be indifferent and concise. Because of their lack of meaningful communication with other people, those who are diagnosed with SPD are not able to develop accurate reflections of themselves with respect to how well they are getting along with others. Such reflections are important for a person's self-awareness and their ability to assess the impact of their own actions in social situations. R. D. Laing suggests that without being enriched by injections of interpersonal reality there occurs an impoverishment in which one's self-image becomes more and more empty and volatilized, leading the individual himself to feel unreal.

According to Gunderson, people with SPD "feel lost" without the people they are normally around because they need a sense of security and stability. However, when the patient's personal space is violated, they feel suffocated and feel the need to free themselves and be independent. Those people who have SPD are happiest when they are in a relationship in which the partner places few emotional or intimate demands on them, as it is not people as such that they want to avoid, but both negative and positive emotions, emotional intimacy, and self disclosure.

This means that it is possible for schizoid individuals to form relationships with others based on intellectual, physical, familial, occupational, or recreational activities as long as these modes of relating do not require or force the need for emotional intimacy, which the individual will reject.

Donald Winnicott sums up the schizoid need to modulate emotional interaction with others with his comment that schizoid individuals "prefer to make relationships on their own terms and not in terms of the impulses of other people," and that if they cannot do so, they prefer isolation.

SCHIZOPHRENIA

Schizophrenia is a mental disorder characterized by a disintegration of thought processes and of emotional responsiveness. It most commonly manifests as auditory hallucinations, paranoid or bizarre delusions, or disorganized speech and thinking, and it is accompanied by significant social or occupational dysfunction. The onset of symptoms typically occurs in young adulthood, with a global lifetime prevalence of about 0.3–0.7%. Diagnosis is based on observed behavior and the patient's reported experiences.

Genetics, early environment, neurobiology, and psychological and social processes appear to be important contributory factors; some recreational and prescription drugs appear to cause or worsen symptoms. Current research is focused on the role of neurobiology, although no single isolated organic cause has been found. The many possible combinations of symptoms have triggered debate about whether the diagnosis represents a single disorder or a number of discrete syndromes. Despite the etymology of the term from the Greek roots *skhizein* (σχίζειν, "to split") and *phrēn*, *phren-* (φρήν, φρεν-; "mind"), schizophrenia does not imply a "split mind" and it is not the same as dissociative identity disorder—also known as "multiple personality disorder" or "split personality"—a condition with which it is often confused in public perception.

The mainstay of treatment is antipsychotic medication, which primarily suppresses dopamine, and sometimes serotonin, receptor activity. Psychotherapy and vocational and social rehabilitation are also important in treatment. In more serious cases—where there is risk to self and others—involuntary hospitalization may be necessary, although hospital stays are now shorter and less frequent than they were.

The disorder is thought mainly to affect cognition, but it also usually contributes to chronic problems with behavior and emotion. People with schizophrenia are likely to have additional (comorbid) conditions, including major depression and anxiety disorders; the lifetime occurrence of substance abuse is almost 50%. Social problems, such as long-term unemployment, poverty and homelessness, are common. The average life expectancy of people with the disorder is 12 to 15 years less than those without, the result of increased physical health problems and a higher suicide rate (about 5%).

Signs and symptoms

A person diagnosed with schizophrenia may experience hallucinations (most reported are hearing voices), delusions (often bizarre or persecutory in nature), and disorganized thinking and speech. The latter may range from loss of train of thought, to sentences only loosely connected in meaning, to incoherence known as word salad in severe cases. Social withdrawal, sloppiness of dress and hygiene, and loss of motivation and judgement are all common in schizophrenia. There is often an observable pattern of emotional difficulty, for example lack of responsiveness. Impairment in social cognition is associated with schizophrenia, as are symptoms of paranoia; social isolation commonly occurs. In one uncommon subtype, the person may be largely mute, remain motionless in bizarre postures, or exhibit purposeless agitation, all signs of catatonia.

Late adolescence and early adulthood are peak periods for the onset of schizophrenia, critical years in a young adult's social and vocational development. In 40% of men and 23% of women diagnosed with schizophrenia the condition manifested itself before the age of 19. To minimize the developmental disruption associated with schizophrenia, much work has recently been done to identify and treat the prodromal (pre-onset) phase of the illness, which has been detected up to 30 months before the onset of symptoms. Those who go on to develop schizophrenia may experience transient or self-limiting psychotic symptoms and the non-specific symptoms of social withdrawal, irritability, dysphoria, and clumsiness during the prodromal phase.

Schneiderian classification



The term schizophrenia was coined by Eugen Bleuler.

The psychiatrist Kurt Schneider (1887–1967) listed the forms of psychotic symptoms that he thought distinguished schizophrenia from other psychotic disorders. These are called first-rank symptoms or Schneider's first-rank symptoms, and they include delusions of being controlled by an external force; the belief that thoughts are being inserted into or withdrawn from one's conscious mind; the belief that one's thoughts are being broadcast to other people; and hearing hallucinatory voices that comment on one's thoughts or actions or that have a conversation with other hallucinated voices. Although they have significantly contributed to the current diagnostic criteria, the specificity of first-rank symptoms has been questioned. A review of the diagnostic studies conducted between 1970 and 2005 found that they allow neither a reconfirmation nor a rejection of Schneider's claims, and suggested that first-rank symptoms be de-emphasized in future revisions of diagnostic systems.

Positive and negative symptoms

Schizophrenia is often described in terms of positive and negative (or deficit) symptoms. Positive symptoms are those that most individuals do not normally experience but are present in people with schizophrenia. They can include delusions, disordered thoughts and speech, and tactile, auditory, visual, olfactory and gustatory hallucinations, typically regarded as manifestations of psychosis. Hallucinations are also typically related to the content of the delusional theme. Positive symptoms generally respond well to medication. Negative symptoms are deficits of normal emotional responses or of other thought processes, and respond less well to medication. They commonly include flat or blunted affect and emotion, poverty of speech (alogia), inability to experience pleasure (anhedonia), lack of desire to form relationships (asociality), and lack of motivation (avolition). Research suggests that negative symptoms contribute more to poor quality of life, functional disability, and the burden on others than do positive symptoms. People with prominent negative symptoms often have a history of poor adjustment before the onset of illness, and response to medication is often limited.

(b) Comment on the present practices related to educational guidance and counseling programs in Indian schools and colleges. Highlight the problems in implementing and strengthening these programs in Indian context.

TOPIC: *Application of Psychology to Educational Field*
SUBTOPIC: *Effective strategies in guidance programmes*
LEVEL: *Easy*
NATURE: *Fundamental - Applied*

REFERENCE:

This question could be answered along the following framework:

Indian schools - Status of counseling in rural and urban schools - Absence of academic counseling in rural schools based on individual skills and ability - Counseling practices are being adopted in urban private schools - Lack of trained psychologists for counseling practices - Socio-cultural realities and CRPs behind low achievement motivation - etc.

(c) Critically evaluate the strengths and limitations of psychodynamic therapies in the treatment of mental disorders.

TOPIC: *Therapeutic Approaches*
SUBTOPIC: *Psychodynamic Therapies*
LEVEL: *Easy*
NATURE: *Fundamental - Applied*

REFERENCE:

Most of the work reviewed thus far has concerned short-term treatment. Some of it was purely experimental and involved no treatment whatsoever. Most psychodynamic therapy, however, is open-ended (decisions to continue or stop are within the client's control) and thus typically of long duration, and all of psychoanalysis is long-term. We have taken psychodynamic therapy apart and looked at its components. Now let us move from process to outcome, putting it back together to see what empirical research says about its effectiveness.

Studies of psychoanalytic outcome began almost as soon as psychoanalytic clinics were established (Alexander, 1937; Coriat, 1917; E. Jones, 1936; Kessel & Hyman, 1933). Although Knight's (1941) review of these early investigations paints a highly positive picture of outcome, all had employed a retrospective strategy using no control groups or independent observations; the sole arbiter of change was the treating analyst. Consequently, these findings are suspect. Later studies corrected for the flaws of retrospective report and independent observation but not for the lack of control groups. The first prospective and still the most impressive such study was the Menninger Foundation Psychotherapy Research Project (Appelbaum, 1977; Kernberg et al., 1972; Wallerstein, 1986). Initiated in 1954, this project tracked its

participants for more than 30 years. Forty-two adult patients (22 in analysis and 20 in psychodynamic therapy) were studied. Psychotic, organically damaged, and mentally deficient patients were excluded. Nonetheless, many subjects were extremely troubled individuals with histories of unsuccessful treatment. Six had to be switched from psychoanalysis to psychodynamic psychotherapy because of unmanageable transferences. This research project generated a huge amount of data—hundreds of pages for each participant. Five books and 60 papers on this data set have appeared so far.

Overall, although the study reported substantial and equivalent general improvement for both psychoanalytic and dynamic psychotherapy patients, there was considerable variability. Treatment helped individuals to modify repetitive, long-standing, and characterological problems as well as to diminish their presenting symptoms. This finding was compelling because—as noted previously—many of the patients had not been helped by other treatments. Therapist support was the major curative factor identified by this study. Insight did not contribute to outcome—that is, improvement did not correlate with interpretive activity of the therapist or with the development of insight on the part of the patient. In contrast, the use of the positive dependent transference, corrective emotional experiences, assistance with reality testing, and other more supportive measures did correlate with outcome. Before one accepts these findings as representative of analytic treatment, a caveat applies: These patients were severely ill and may not have been suited for engaging in an exploratory, regression-promoting psychoanalytic process.

Another important study was conducted by the Columbia University Department of Psychiatry Center for Psychoanalytic Training and Research. Over 250 psychoanalytic patients (less disturbed than the Menninger clients), the largest sample ever examined in one research project, were studied from 1945 to 1961. A second wave of data collection involving about 90 patients ran from 1962 through 1971. Data included case records and reports of patients, analysts, and supervisors. Judges with adequate reliability evaluated these sources. Outcome was assessed through judge evaluation of circumstances of termination, clinical judgment of improvement by independent judges and treating therapists, and change scores based on judges' evaluations of records at the beginning and end of treatment. Overall, patients benefited from treatment. Length of therapy and development of an analytic process were strongly related to the benefits obtained. Reviews and analyses of these data may be found in Bachrach, Weber, and Solomon (1985) and Weber, Bachrach, and Solomon (1985a, 1985b).

In later research at Columbia, Vaughan and her colleagues (Vaughan et al., 2000) investigated whether psychoanalysis and long-term analytic therapy could be feasibly subjected to the degree of methodological rigor necessary to establish their effectiveness. Methodology that has been used to study brief therapies and pharmacological studies—including self-report data, therapist data, and blind ratings at baseline, 6 months, and 1 year—was applied to nine patients in analysis and 15 in dynamic psychotherapy. Significant therapeutic effects on a variety of measures were seen at 1 year, despite the small sample, in both psychoanalysis and dynamic therapy. The authors did note, however, some resistance by clinicians to having their work studied—a problem if psychologists are to attain reliable data on outcome.

The Boston Psychoanalytic Institute conducted a retrospective study covering the years 1959 to 1966 (Sashin, Eldred, & Van Amerowgen, 1975) that showed positive effects of both treatment in general and treatment length in particular. A prospective and therefore less potentially biased study was undertaken at the same institute in 1972 (Kantrowitz, Katz, Paolitto, Sashin, & Solomon, 1987a, 1987b). Measures taken at the beginning and end of treatment included the Rorschach, TAT, Draw-a-Person Test, Cole Animal Test, and WAIS verbal subtests. These were evaluated by two judges for reality testing, object relations, motivation for treatment, availability of affect, and affect tolerance. Both intake and termination interviewers also made these judgments, based on their respective experiences of each patient. A year after treatment, the therapist was interviewed, and his or her comments were rated for analytic process and for outcome. Therapeutic benefit was assessed in terms of changes in the tests (pre- to post-test) and in terms of therapist assessment. Again, patients showed improvement, and level of improvement was positively related to treatment length. A follow-up on these patients, collected up to 10 years after termination (Kantrowitz, Katz, & Paolitto, 1990a, 1990b, 1990c; Kantrowitz et al., 1989), showed that most had developed self-analytic capabilities and were maintaining their gains. Individual improvement was variable: Some kept improving, some maintained their gains, some had ups and downs, and a few got worse. Despite the variability, this result is impressive because 10-year follow-ups are extremely rare in the

literature. That most patients had stayed better and acquired a lifelong skill of engaging in a self-analytic process is a remarkable finding.

The New York Psychoanalytic Institute collected data from 1967 to 1969 (Erle, 1979; Erle & Goldberg, 1984), showing that treatment length was strongly related to outcome and that most patients improved. Similar results were obtained with a retrospective study. Because all variables were collected from the treating therapists and were not confirmed through independent report or even by the patients involved, these data are not very reliable. Erle and Goldberg (1984) acknowledge the limitations of their findings, calling them preliminary. A methodologically stronger study has recently been carried out in Sweden. Sandell and his colleagues (2000) collected data on 450 patients (a 66% response rate from a pool of 756), using normed interview and questionnaire data from patients and therapists, as well as absenteeism and health care utilization data. Patients were in a range of analytic therapies, including 74 in analysis three or more times per week. Findings were complex, but overall, patients in both analysis and therapy improved in treatment in direct proportion to its duration and frequency. Oddly, improvement was high on self-rating measures of symptom relief and general morale but not in the area of social relations.

Taken together, these studies support the efficacy of psychoanalysis and psychoanalytic therapy. They also demonstrate that deeply entrenched problems are amenable to psychoanalysis and psychodynamic treatment. Bachrach, Galatzer-Levy, Skolnikoff, and Waldron (1991); Doidge (1997); and Galatzer-Levy et al. (2000) provide excellent reviews of these and other psychoanalytic outcome studies.

A method for studying long-term psychotherapy that is popular in psychology today falls under the heading of "effectiveness" research. It was not designed with psychoanalytic principles in mind; rather, it was created as a counterpoint to rigorous, internally valid but somewhat artificial psychotherapy outcome studies termed *efficacy research*. In a nutshell, effectiveness studies are concerned with how actual patients fare in the real world. The goal of these naturalistic studies is ecological validity. Therapy investigated by effectiveness research includes long-term treatment, and long term treatment as currently practiced is still overwhelmingly psychodynamic. We therefore review this area of research here.

The first effectiveness study was conducted by *Consumer Reports* magazine (Seligman, 1995, 1996), whose editors sent readers a questionnaire on their experiences in psychotherapy. More than 4,000 respondents reported having been in some kind of treatment; almost 3,000 had seen mental health professionals. Treatments were not standardized, diagnostic information was not obtained, and before and after measures were not taken. Data were obtained only from clients and were analyzed as to length and frequency of treatment and type of professional providing it. Results indicated that therapy was helpful. Psychiatrists, psychologists, and social workers obtained better results than did other professionals such as physicians and marriage counselors. Of particular relevance to our concerns is that greater improvement was associated with long-term as opposed to short-term treatment and with higher session frequency. Results were not limited to symptom relief; people reported that the quality of their lives had improved as well. These findings are controversial because they consist of self-report data, which are notoriously subject to bias, in a study that lacked a control group (see Vanden Bos, 1996).

For our purposes, a significant limitation of the *Consumer Reports* study is that although the treatments can be assumed to have been largely psychodynamic, this was not shown. Freedman, Hoffenberg, Vorus, and Frosch (1999) solved this problem by applying effectiveness methodology to psychoanalysis. Patients in their study were treated at a clinic associated with the Institute for Psychoanalytic Therapy and Research (IPTAR); thus, this study concerned itself specifically with psychoanalytic treatments. The investigators sent out 240 questionnaires, of which 99 were returned (41%). Treatment duration ranged from 1 month to 2 years, and session frequency from once a month to three times a week. Measures were the same as those used in the *Consumer Reports* study. Results from the IPTAR study replicated those of the *Consumer Reports* survey. Length of treatment was positively related to outcome, especially when therapies of under 6 months were compared with treatment lasting over a year. Frequency was also related to outcome: Both two- and three-times-a-week appointments proved superior to once-weekly sessions, although they did not differ significantly from each other. Moreover, frequency and duration contributed separately to outcome—that is, each was related to outcome independently of the other (cf. Roth & Fonagy, 1996).

Taken together, these studies indicate that long-term psychoanalytic psychotherapy is effective. They also support the conclusion that duration and frequency of treatment are important variables. Prior to these findings, psychoanalytic clinicians had only personal and anecdotal experience to support their conviction that psychoanalysis and psychodynamic therapy are beneficial to their patients and that more is better. Currently, a collaborative analytic multisite program, spearheaded by the American Psychoanalytic Association, is gathering process and outcome data from numerous research groups in the United States and elsewhere, in which a common database of audio-taped and transcribed psychoanalytic sessions will be analyzed in methodologically sophisticated ways that correct for design flaws in the earlier studies. Regrettably, costs of implementing this project are high enough—and funding dicey enough—that Wallerstein (2001) has wryly referred to the fulfillment of the aim to integrate these process and outcome studies as “music for the future” (p. 263). We look forward to hearing this music.

The nature of psychodynamic psychotherapy makes it especially difficult to gauge its effects. From an empirical researcher's point of view, the challenge of defining and measuring the outcome of psychodynamic psychotherapy—and even the basic psychoanalytic concepts on which therapy rests, such as the unconscious, transference, insight, and defense mechanisms—can be extremely challenging (Gibbons et al., 2007; Luborsky & Barrett, 2006). How, exactly, do we know how well it has worked? Can we measure the extent to which the unconscious has been made conscious? Can we calculate the amount of insight that a client has achieved or the extent to which their relationships have improved? These questions haunt psychodynamic psychotherapy and elicit criticism from those who prefer therapies of other kinds. Additionally, these questions help us understand why such a small number of psychodynamic therapies have been manualized, subjected to empirical trials, or included on lists of treatments that work. In spite of these methodological challenges, there have been many attempts to measure the outcome of psychodynamic psychotherapy. A large-scale review of psychodynamic and psychoanalytic outcome studies that, in total, included almost 2,000 clients treated by about 500 therapists across a wide range of settings suggested that the vast majority of clients improve substantially (Galatzer-Levy et al., 2000). More recent reviews of psychodynamic psychotherapy outcome studies have also touted empirical data supporting its use with a wide range of specific disorders, including depression, bulimia, anorexia, panic disorder, and borderline personality disorder (e.g., Leichsenring, 2009a; Leichsenring, Rabung, & Leibing, 2004). However, other reviews of the status of psychodynamic therapies have pointed out that the number of empirically sound studies is quite small—in fact, for some major disorders, there isn't a single well-done empirical study—suggesting that the evidence that does exist should be interpreted cautiously (Gibbons, Crits-Christoph, & Hearon, 2008; Leichsenring, 2009b). Certainly, psychodynamic psychotherapy lags behind some others, especially behavioral and cognitive therapy, in sheer volume of empirical data supporting its use with specific clinical problems. But these reviews indicate that such empirical data has been obtained for some disorders and continues to accumulate.

Interestingly, in some meta-analyses, psychodynamic therapies are found to be effective but a bit less so than other forms of therapy. These slight discrepancies disappear, however, when allegiance effects are taken into account. **Allegiance effects** refer to the influence of researchers' own biases and preferences on the outcome of their empirical studies. Typically, the researchers who conduct empirical studies of psychotherapy outcome, including meta-analyses, are not psychodynamic in their own orientation. Instead, they tend to be behavioral or cognitive, which are the two broad categories of therapy to which psychoanalysis was found to be slightly inferior in some meta-analyses (Prochaska & Norcross, 2010).

Allegiance effects can be quite powerful: Luborsky et al. (1999) evaluated many comparative reviews of the psychotherapy literature and comparative studies of psychotherapy and found a surprisingly strong relationship between the way therapies were rated and the orientation of the researcher doing the rating. This is relevant for all psychotherapy orientations but especially for the psychodynamic approach, because a relatively small number of therapy outcome researchers have been psychodynamic.

CURRENT DIRECTIONS IN PSYCHODYNAMIC PSYCHOTHERAPY

Changes in health care financing have required psychoanalytically oriented therapists to confront treatment exigencies radically at odds with their sensibilities. One positive effect of the managed care movement has been to stimulate research on psychoanalytic therapies. Meanwhile, more and more

psychodynamic clinicians are practicing on a fee-for-service basis outside health maintenance plans because the values and goals of analytic work are hard to graft on a symptom focused, limited-session model in which drug treatment is privileged (cf. McWilliams, 1999).

Peripheral to managed care and its political context, there are some areas of current psychoanalytic exploration that have significant implications for therapy. For example, there is an impressive clinical and empirical literature about infancy that permits preventive interventions of a precise nature (e.g., Greenspan, 1992; Stern, 1995). Psychoanalytic therapy with children has matured into a sophisticated discipline with empirical as well as theoretical underpinnings (Chethik, 2000; Heineman, 1998). There is a growing body of psychoanalytic work that illuminates the psychologies and the treatment needs of previously ill-served populations such as people in sexual minorities (e.g., Glassgold & Iasenza, 1995; Isay, 1989, 1994), in cultures of poverty (Altman, 1995), and in racial and ethnic subgroups (e.g., Foster, Moskowitz, & Javier, 1996; Jackson & Greene, 2000).

Psychoanalytically influenced feminists have been contributing to an increasingly sophisticated interdisciplinary conversation on gender (e.g., Young-Breuhl, 2000). Connections between psychoanalytic theory and diverse religious and spiritual traditions are being forged (e.g., Epstein, 1998; Suler, 1993). Philosophical explorations of psychoanalysis are enjoying a recrudescence, in the contemporary context of hermeneutic, postmodernism, and social constructivist ideas (e.g., Hoffman, 1991, 1992; Messer, Sass, & Woolfolk, 1994). Other scholars are integrating analytic theory and cognitive neuroscience (e.g., Schore, 1994).

(d) Discuss how the major role of rehabilitation psychologists is primarily as a 'facilitator of justive behavior' rather than as a 'symptom eradicator'.

TOPIC: *Rehabilitation Psychology*
SUBTOPIC: *Organizing the Services for Rehabilitation*
LEVEL: *Easy*
NATURE: *Fundamental - Applied*

REFERENCE:

From the perspective of psychiatric rehabilitation services, a number of qualities of recovery have been suggested: recovery can occur without professional intervention; recovery requires people who believe in and stand by the person in recovery; a recovery vision is not a function of theories about the cause of psychiatric conditions; recovery can occur even if symptoms reoccur; recovery changes the frequency and duration of symptoms; recovery from the consequences of a psychiatric condition are often far more difficult than from the symptoms; recovery is not linear; recovery takes place as a series of small steps; recovery does not mean the person was never really psychiatrically disabled; recovery focuses on wellness not illness; recovery should focus on consumer choice.

An approach to recovery known as the Tidal Model focuses on the continuous process of change inherent in all people, conveying the meaning of the experiences through water metaphors. Crisis is seen as involving opportunity, creativity is valued, and different domains are explored such as a person's sense of security, their personal narrative and their relationships. Initially developed by mental health nurses along with service users, Tidal is one of the few recovery models to have been researched rigorously. The Tidal Model is based on a discrete set of values (the Ten Commitments) and emphasizes the importance of each person's own voice, resourcefulness and wisdom. Since 1999, projects based on the Tidal Model have been established in the USA, Canada, Japan, New Zealand, Australia, Republic of Ireland, Scotland, Wales and England, where Tidal was originally developed. The Tidal Model has been used with a wide range of populations and is, arguably, the most widely used model of recovery.

For many, "recovery" has a political as well as personal implication—where to recover is to find meaning, to challenge prejudice (including diagnostic "labels" in some cases), perhaps to be a "bad" non-compliant patient and refuse to accept the indoctrination of the system, to reclaim a chosen life and place within society, and to validate the self. Recovery can thus be viewed as one manifestation of empowerment. An

empowerment model of recovery may emphasize that conditions are not necessarily permanent, that other people have recovered who can be role models and share experiences, and "symptoms" can be understood as expressions of distress related to emotions and other people. One such model from the US National Empowerment Center proposes a number of principles of how people recover and identifies the characteristics of people in recovery.

Recovery may be seen as more of a philosophy or attitude than a specific model, requiring that "we regain personal power and a valued place in our communities. Sometimes we need services to support us to get there".

The *Tidal Model* (Barker, 2000) is a radically new approach to the practice of mental health nursing based on a series of research studies conducted over the past five years, which sought to define how nurses might help empower users and their families, and to clarify what kind of 'care' people *need* from nurses (Barker et al, 1999). The *Tidal Model* is presently being established as the basis of nursing practice, across the whole adult mental health programme in Newcastle, and is being introduced into selected clinical and teaching setting in Australia and New Zealand, Finland, Scotland, Ireland and Wales.

Although the *Tidal Model* complements the care offered by other health and social care disciplines, it recognises that 'quality' nursing care is focused on a special kind of relationship with users and their families. The person's needs change from day to day and problems are not fixed things. Life flows through people and the problems of living they experience are equally fluid and changeable. Effective care needs to be based on a realisation of the changing nature of people and their life circumstances.

The *Tidal Model* emphasises the unpredictability of human experience through the core metaphor of water.

Life is a journey taken on an ocean of experience. All human development – including the experience of health and illness – involves discoveries made on that journey across the ocean of experience. At critical points in the journey people may experience storms or piracy. The ship may begin to take in water and the person may face the prospect of drowning or shipwreck. The person may need to be guided to a safe haven, to undertake repairs, or to recover from the trauma. Once the ship is made intact or the person has regained their sea legs, the journey may begin again, as the person sets again their course on the ocean of experience.

This metaphor illustrates many of the elements of the psychiatric crisis and the necessary responses to this human predicament. 'Storms at sea' is a metaphor for problems of living; 'piracy' evokes the experience of rape or the 'robbery of the self' that severe distress can produce. Many users describe the overwhelming nature of their experience of distress as akin to 'drowning' and this often ends in a metaphorical 'shipwreck' on the shores of the acute psychiatric unit. A proper 'psychiatric rescue' should be akin to 'lifesaving' and should lead the person to a genuine 'safe haven' where the necessary human repair work can take place.

The *Tidal Model* makes few assumptions about the proper course of a person's life, preferring instead to focus on the kind of support that people might need to rescue them from crisis, and help them to chart again the course of their own lives. Genuine *psychiatric care* should be focused on appropriate forms of 'emotional rescue' and *mental health care* should be focused on the kind of human development that will enable the person to 'put to sea' again. In this sense the *Tidal Model* is committed to helping people to recover their lives, taking up the journey of a lifetime that has been disrupted by the experience of trauma or breakdown.

The *Tidal Model* involves three distinct, but related, dimensions of caring:

In the *world* dimension, the nurse focuses on the person's need to be understood. This includes a need to have the personal experience of distress, illness or trauma, validated by others. A radically different form of nursing assessment – the *Holistic Nursing Assessment* - has been developed which documents what is significant and meaningful to the person *now*, at this point in their life journey. This assessment, which charts the person's journey to the 'here and now', identifies what needs to happen next, to help them, and is

written in the person's own words. This enabled autobiography is one attempt to reduce the disempowerment experienced in the teeth of the psychiatric storm.

In the *self-dimension* the nurse focuses on the person's need for emotional and physical security. The nurse helps the person to develop his or her own *Security Plan*, which also is written in the person's own voice. This part of the care plan identifies the kind of support the person needs to feel secure enough to tackle the problems of living that have been identified in the *world* dimension.

In the *others* dimension the care plan considers the kind of support that might be provided by other disciplines or agencies, in order to resolve immediate problems or lead an ordinary life. These inputs might range from the provision of medical support, through to support from friends or family, financial advice, housing, education, leisure or other aspects of community integration.

The various *Tidal Model* assessments are focused on identifying what needs to be done, in the short and longer term, to meet the person's human needs. These goals are not merely focused on resolving problems of living, in a psychiatric sense, but also try to consider how the person's mental health might be promoted through an acknowledgement of existing personal strengths, spiritual meanings and adaptability to social circumstances.

The *Tidal Model* assumes that nurses should only do what is absolutely necessary to meet the person's needs. This emphasis on 'doing what *needs* to be done' might help avoid fostering dependence or otherwise institutionalising people. Although the *Tidal Model* is informed by research, as well as interpersonal relations theory, the care programme is written in the ordinary language of the individual user. There has been an unfortunate trend, in recent years, to try to 'teach' people about the experience of mental distress. This is best illustrated by the development of 'psychoeducation' or 'compliance-therapy' approaches, which encourage the user or family to assume a position of 'ignorance'. In reality, professionals are the ones who are ignorant of the experience of mental distress. All professionals need to develop some humility and acknowledge that they need to learn from the people in their care. Users – and in some cases – their families, help professionals define what 'needs to be done' to help address the problems of living associated with mental distress

The *Tidal Model* care involves a balance between individual interventions – where the person is helped to address and resolve individual needs, wants or wishes, within a one-to-one relationship; and groupwork, where issues common to others are addressed through the medium of group processes. The *Tidal Model* recommends three forms of group work:

- The *Recovery Group* focuses on helping to boost the self-esteem of participants, acknowledging the values and attributes that even severely distressed people can bring to the life of others;
- The *Solutions Group* recognises that if people have an opportunity to explore, creatively, with others their present difficulties, they may construct their own solutions;
- The *Information Group* recognises that people with mental health problems need to be informed about many aspects of their world of experience that, often, is kept secret from them. This information may range from details of medication, access to benefits, legal issues, or advice about educational or other community opportunities.

Although the *Tidal Model* is based on research, and develops some of the theory of interpersonal relations, it is not a protocol driven approach. Instead, the various 'frameworks' within the model, merely offers nurses guidance as to how they might structure their efforts to empower people and to focus on what people *really* need. Consequently, we expect that the model will change dramatically as it is applied in practice. The world is changing fast, and all models of psychiatric and mental health care need to acknowledge the flowing nature of our personal and social world.

Many contemporary models of mental health care are based on an outmoded scientific paradigm, which assumes that people – and their problems - are somehow 'fixed'. Many of the popular theories of psychiatric

intervention are based on outmoded, paternalistic ideas of 'how people *should* live'. The *Tidal Model* tries to adopt a more realistic, and humble, approach in assuming that the answers to the question of what kind of care do people need, can be provided by the people themselves.

(e) Discuss the merits of the role of small groups in social actions and community handling of social problems.

TOPIC: *Community Psychology*
SUBTOPIC: *Use of Small Groups in Social Action*
LEVEL: *Easy*
NATURE: *Applied*

REFERENCE:

The anthropologist Margaret Mead gave us the gift of what can be called Mead's Axiom, "Never doubt that a small group of thoughtful, committed people can change the world; indeed, it's the only thing that ever has."

On good days my work involves enthusiastically trying to form and catalyze such groups. On bad days one curses and wonders where these small groups of thoughtful, committed people are and what they're waiting for. Regardless of what day it is, one feels that Mead's Axiom provides us with a compelling vision for mass social change. It deserves attention. This essay is animated by a burning desire to understand what could be thought of as the mother of all axioms, at least when it comes to mass social change.

Despite the tidiness of Mead's Axiom, mass social change is not usually a nice linear process. There are, of course, situations where social innovation follows a linear path, for example with the take-up of an innovation (See Chapter 9 of "Believing Cassandra" by World changing contributor Alan AtKisson). But these situations are rare when it comes to social systems which are complex and stuck. Adam Kahane, in his book "Solving Tough Problems," explains,

"Problems are tough because they are complex in three ways. They are dynamically complex, which means that cause and effect are far apart in space and time, and so are hard to grasp from firsthand experience. They are generatively complex, which means that they are unfolding in unfamiliar and unpredictable ways. And they are socially complex, which means that the people involved see things very differently, and so the problems become polarized and stuck."

When studying mass social change as a phenomenon there is always a temptation to order events as they happened, in a timeline. Then by implication we assume that one thing follows another and one thing neatly causes another. A very real danger for those wishing to learn from historical social change is the trap of seeing social change linearly. This is a trap is because we know (for example from research on complex systems) that social change, that is changing a complex system, is less about planning and more about creating the conditions for change. To mangle an old adage, no plan survives contact with reality. Mass social change is messy, unpredictable and often ugly.

Modern institutions are not well suited to the work of catalyzing social change because they suffer from a touching need for linear and predictable processes. Such processes in turn demand that risk be minimized and a plan be proposed, which is often used as a script rather than a point of departure. If we're being honest with ourselves, then we'd recognize when the function of a plan is purely psychological comfort in the face of unpredictable and frightening change.

Some appetite for risk is, however, a key capacity required of anyone with a commitment to sustained social change in such turbulent times. If this appetite does not come naturally then it must be built slowly over time, like an immunity. As James P. Carse, in *Finite and Infinite Games* puts it, "To be prepared against surprise is to be trained, to be prepared for surprise is to be educated."

Risk therefore should not be confused with recklessness or blindness. Risk can be understood, embraced and internalized as an intrinsic quality of the systems that we're dealing with. It cannot be banished and

any attempt to do so should be treated with the same sympathy that any other pathological condition demands.

I fell headfirst into the trap of seeing social change as a linear process. I wrote down what I saw happening, one step after another. It took me a little time to see the obvious and to realize that while such an approach might make me feel like I have a handle on my subject, it was largely an illusion. Instead, I offer an unbundling of Mead's Axiom in the hope of prompting further dialogue and thought.

Change Happens

Or to be more precise, positive social change happens often.

Deeply entrenched and traumatic social problems can cause despair. When problems appear to go on for decades with no resolution in sight, it is easy to adopt an attitude that things do not, will not or cannot change. Everything however is subject to the law of entropy, everything decays and everything will die. This is true of institutions, regimes and reigns of injustice. When confronted with monolithic systems that seem to defy time, we are in, fact, confronting our own attitudes towards our own mortality.

While it's true that the existence of an unjust system may be extracting a high price from the people subjected to it, and that should always drive us, there is a more fundamental question that requires attention. Are we willing to see our work as bigger than ourselves, as a generational project if need be, in the faith that things will change? The attitude and commitment that such a position would entail is rare and becoming rarer still. While not a requirement per se, the adoption of such attitudes can liberate us from the paralysis caused by life under the weight of soul crushing social problems.

If we're willing to look beyond the concerns and demands of our own mortality, or do whatever else it takes, in order to believe that change is possible, then this is what we will see. The Quit India Movement, the Civil Rights Movement and the collapse of the Soviet Union are all outstanding examples of mass social change where systems that seemed timeless either collapsed or changed beyond imagining.

A Stuck System is Like a Black Hole

Stuck social problems, or stuck systems, like black holes, rarely come into being overnight. Often they are the result of long historical processes. A system might be stuck because those in power are benefiting from the status quo or it might be stuck because there are fundamental disagreements as to how it should change.

One way of understanding the increasing "stuck-ness" of social systems is to visualize them as sending out signals during the course of coming into being, as they progress in their development as problems. In the early phases of a problem, the signals from a system may be very localized, visible and audible only to those inside it. A defining characteristic of a "stuck" system is when all signals being sent from it are somehow being blocked or ignored. They arc out into the world but before getting too far, they fall back to the surface. People outside the system, not directly affected by the problem, perceive little. Often, people within the system, those directly affected, become attuned to the very same signals trying to escape. They have lived with the problem so long that they come to believe it as being an unalterable state of affairs. In other words they forget the axiom that "change happens." The problem, by all accounts, has been left to its own devices, to evolve as it may, into increased conflict which potentially generates louder and more powerful signals.

A black hole is by definition black because no signals from it can ever escape its gravitational field. We see it as a hole, as a non-entity. It does, however, make its presence felt because it has a lot of mass and hence we are affected by its strong gravitational pull. We can know it exists and how big it is without knowing much more about it. The space inside a black hole is known as a singularity, and it is a place where the laws of physics, the laws of the universe break down. We do not know what laws operate inside of a black hole. We only know that they are very different from anything we know and understand. Similarly, when a stuck

system is left to its own devices, it enters into a phase where all known laws break down, when the most unimaginable things can and do happen.

Luckily, stuck problems are not black holes, they are only like black holes. As the problem grows in complexity, intensity, and urgency, the strength of the signals emanating from the system grow, and sometimes force their way into the public consciousness. They break free of the gravitational pull of the stuck system. Eventually these signals, in the form of eye-witness accounts, refugees, news reports and so on, may become so strong and urgent that action of some sort becomes necessary, as in the case of Darfur or military action in the Balkans. At this stage, the problem can be seen as a crisis or all out warfare. Or the signals may be recognized too late, as was the case in Rwanda.

While these examples bring to mind extreme conflict situations, these very same characteristics arise at any scale, from small organizations to rural communities. It would be a mistake to assume that “mass” social change only occurs at national or global levels.

Unlike a black hole, which is the product of the laws of physics at work, a stuck system is the product of human processes. This means that its qualities, such as the failure of signals to escape its gravitational pull, are somehow human-made. We can change them. When we are stuck, there is essentially something we are choosing not to see, not to feel, and not to do.

The First Move Toward Change is Usually Undemocratic

A stuck system, like a black hole, contains massive energies. These energies can be seen as that which is stuck. They are frozen. The first move that sets these energies into motion, like cutting a stretched rubber band, has been called a “power move” by systems thinker Barry Oshry. The power move then is one in which tremendous energies are unleashed.

What’s more, it is usually an individual who, waking up in the middle of the night, gets the idea that he or she must do something. Oshry claims that this thought of what to do comes with great clarity—and is often seen as a betrayal. (As Oshry points out, Abraham Lincoln, Anwar Sadat and Yitzak Rabin are good examples of leaders who went beyond their official mandates in order to change a situation that was dramatically stuck. All three were shot for their troubles.)

The first move, an act of self-nomination, is profoundly undemocratic. It is “paradigm shattering” because it changes the rules of the game. It is a move made by an individual tired of endless committee meetings and discussions that change nothing. It’s the move made by someone who is profoundly tired of being subject to power, the logic of which is beyond their rational understanding (think of all those moments of anonymous bravery during periods such as the Holocaust). To make the first move is to risk everything; it is to make the ultimate wager.

Fraught with risk and danger, the first move is made by someone who sees, in a moment, that he or she actually has the capacity to change a world. The defining act of leadership, the first move, increasingly, is rarely practiced by those who call themselves leaders and is more frequently found amongst those that don’t.

The Group is Smarter (But Not Braver) Than the Individual

When a previously stuck social system suddenly becomes “unstuck,” a river of possibilities starts to flow. It’s as if the system instantly shifts from being a solid to being liquid. In order to cope creatively and constructively with the energies of a liquid system, a vast array of decisions need to be made, usually in a short space of time. While such changes appear to be sudden for many people, for those working to create them, they are often the product of long years of work and preparation. Such moments exemplify the idea of a “tipping point,” when a system shifts from one state to another.

It is in such moments of historic flux that we see dictators seizing power or billionaires being created (the oligarchs of Russia are a good example). These are individuals who have seized the moment for their own

benefit. For most people, however, to know how and when to act for the greater public interest during such periods is much more difficult. Few, if any individuals, regardless of how talented or dedicated they are, can turn chaos into positive social change within the complexity of a roiling liquid system. This alchemical task is much better suited to the genius of the group.

A particular and peculiar set of qualities are demanded of a group in order to intelligently cope with such complexity. The group needs to be characterized by collective intelligence, which can be thought of as the capacity to act with a single intelligence or will. Collective intelligence arises out of the process of diverse and dissenting individuals working well with one another within the context of a group.

On the other hand, a group that displays schizophrenic qualities, such as being of two minds, will not be able to capitalize on the possibilities of the moment. Instead of acting, they'll spend their time trying to figure out what they themselves think of the fast-changing situation. Nor will a homogenous group exhibit collective intelligence. Rather, it will exhibit group-think, which is a form of collective blindness.

The existence of a group which can display such demanding characteristics also points to the non-linear nature of mass social change. It is virtually impossible to bring into existence such a group in the short and confused moments after a system becomes liquid. The group needs to be built over a long period of time, with patience and skill.

It is usually the case that any number of lesser opportunities are what practically bring the group together in the first instance. It's working on lesser opportunities that the group develops the capacities to take advantage of a window of historic opportunity. The defining moment in the life of any group is that historic moment where they are called to act in an instant, with perfect trust and co-ordination.

Ideas (and Viruses) Acquire People Through Small Worlds

The most effective way for an epidemic, either of ideas or viruses, to spread widely is through people who don't know each other well. Every time we meet someone new, we come into contact with a distinct web of social relationships from our own. While somewhat counterintuitive, the existence of a "light dusting" of weak social links makes the world a small place.

We all have a tight cluster of relationships around us. When these clusters are weakly connected to each other, we get what is called a "small world." A small world is a particular network architecture within which every member of a network is connected to every other member through a short number of connections, say six degrees. Airports are small worlds, and this is why they are such dangerous places as far as the spread of disease goes. Every stranger that comes (weakly) into contact with a diseased individual is a vector to an entirely different part of the globe, into an entirely different cluster of relationships. If everyone in an airport were going to the same place, or if people didn't live in dense urban clusters, then stopping a modern epidemic would be child's play. Malcolm Gladwell calls the individuals which provide the weak ties between clusters "connectors." They can also be thought of as "carriers." All social change is a change from one state to another. Where mass social change is concerned, the tipping point is that point when a phenomenon shifts from being localized, that is, affecting a relatively small number of people, to affecting a relatively large number of people in a very short period of time.

The presence of a minimum threshold of connectors along with a number of dense clusters is what determines if an epidemic or an idea will tip or break out of its point of origin.

Mead's Axiom Redux

For a small group of thoughtful and committed people to change the world, they must believe that change is possible. They must be ready to act the moment a stuck system becomes liquid. They will only be effective if they display collective intelligence. Finally, they must live in a small world.

2. Answer the following, each in not more than 400 words:

30x2=60

(a) Explain the characteristics of standardized psychological tests. Discuss the major steps in developing self-report personality inventory. Illustrate your answer with a suitable example.

30

TOPIC: *Psychological Measurement of Individual Differences*
SUBTOPIC: *Characteristics and construction of standardized psychological tests*
LEVEL: *Easy*
NATURE: *Fundamental*

REFERENCE:

The psychometric characteristics of mental tests are generally derived from one or both of the two leading theoretical approaches to test construction: classical test theory and item response theory. Although it is common for scholars to contrast these two approaches (e.g., Embretson & Hershberger, 1999), most contemporary test developers use elements from both approaches in a complementary manner (Nunnally & Bernstein, 1994).

Classical Test Theory

Classical test theory traces its origins to the procedures pioneered by Galton, Pearson, Spearman, and E. L. Thorndike, and it is usually defined by Gulliksen's (1950) classic book. Classical test theory has shaped contemporary investigations of test score reliability, validity, and fairness, as well as the widespread use of statistical techniques such as factor analysis. At its heart, classical test theory is based upon the assumption that an obtained test score reflects both true score and error score. Test scores may be expressed in the familiar equation

$$\text{Observed Score} = \text{True Score} + \text{Error}$$

In this framework, the observed score is the test score that was actually obtained. The true score is the hypothetical amount of the designated trait specific to the examinee, a quantity that would be expected if the entire universe of relevant content were assessed or if the examinee were tested an infinite number of times without any confounding effects of such things as practice or fatigue. Measurement error is defined as the difference between true score and observed score. Error is uncorrelated with the true score and with other variables, and it is distributed normally and uniformly about the true score. Because its influence is random, the average measurement error across many testing occasions is expected to be zero.

Many of the key elements from contemporary psychometrics may be derived from this core assumption. For example, internal consistency reliability is a psychometric function of random measurement error, equal to the ratio of the true score variance to the observed score variance. By comparison, validity depends on the extent of non-random measurement error. Systematic sources of measurement error negatively influence validity, because error prevents measures from validly representing what they purport to assess. Issues of test fairness and bias are sometimes considered to constitute a special case of validity in which systematic sources of error across racial and ethnic groups constitute threats to validity generalization. As an extension of classical test theory, generalizability theory (Cronbach, Gleser, Nanda, & Rajaratnam, 1972; Cronbach, Rajaratnam, & Gleser, 1963; Gleser, Cronbach, & Rajaratnam, 1965) includes a family of statistical procedures that permits the estimation and partitioning of multiple sources of error in measurement. Generalizability theory posits that a response score is defined by the specific conditions under which it is produced, such as scorers, methods, settings, and times (Cone, 1978); generalizability coefficients estimate the degree to which response scores can be generalized across different levels of the same condition.

Classical test theory places more emphasis on test score properties than on item parameters. According to Gulliksen (1950), the essential item statistics are the proportion of persons answering each item correctly (item difficulties, or p values), the point-biserial correlation between item and total score multiplied by the item standard deviation (reliability index), and the point-biserial correlation between item and criterion score multiplied by the item standard deviation (validity index).

Hambleton, Swaminathan, and Rogers (1991) have identified four chief limitations of classical test theory: (a) It has limited utility for constructing tests for dissimilar examinee populations (sample dependence); (b) it is not amenable for making comparisons of examinee performance on different tests purporting to measure the trait of interest (test dependence); (c) it operates under the assumption that equal measurement error exists for all examinees; and (d) it provides no basis for predicting the likelihood of a given response of an examinee to a given test item, based upon responses to other items. In general, with classical test theory it is difficult to separate examinee characteristics from test characteristics. Item response theory addresses many of these limitations.

Item Response Theory

Item response theory (IRT) may be traced to two separate lines of development. Its origins may be traced to the work of Danish mathematician Georg Rasch (1960), who developed a family of IRT models that separated person and item parameters. Rasch influenced the thinking of leading European and American psychometricians such as Gerhard Fischer and Benjamin Wright. A second line of development stemmed from research at the Educational Testing Service that culminated in Frederick Lord and Melvin Novick's (1968) classic textbook, including four chapters on IRT written by Allan Birnbaum. This book provided a unified statistical treatment of test theory and moved beyond Gulliksen's earlier classical test theory work.

IRT addresses the issue of how individual test items and observations map in a linear manner onto a targeted construct (termed *latent trait*, with the amount of the trait denoted by θ). The frequency distribution of a total score, factor score, or other trait estimates is calculated on a standardized scale with a mean of 0 and a standard deviation of 1. An item characteristic curve (ICC) can then be created by plotting the proportion of people who have a score at each level of θ , so that the probability of a person's passing an item depends solely on the ability of that person and the difficulty of the item. This item curve yields several parameters, including item difficulty and item discrimination. Item *difficulty* is the location on the latent trait continuum corresponding to chance responding. Item *discrimination* is the rate or slope at which the probability of success changes with trait level (i.e., the ability of the item to differentiate those with more of the trait from those with less). A third parameter denotes the probability of guessing. IRT based on the one-parameter model (i.e., item difficulty) assumes equal discrimination for all items and negligible probability of guessing and is generally referred to as the Rasch model. Two-parameter models (those that estimate both item difficulty and discrimination) and three-parameter models (those that estimate item difficulty, discrimination, and probability of guessing) may also be used.

IRT posits several assumptions: (a) *unidimensionality and stability* of the latent trait, which is usually estimated from an aggregation of individual item; (b) *local independence* of items, meaning that the only influence on item responses is the latent trait and not the other items; and (c) *item parameter invariance*, which means that item properties are a function of the item itself rather than the sample, test form, or interaction between item and respondent. Knowles and Condon (2000) argue that these assumptions may not always be made safely. Despite this limitation, IRT offers technology that makes test development more efficient than classical test theory.

Approaches to SRI Scale Construction

Burisch (1984) described three primary, non-mutually exclusive approaches that have been used in SRI scale construction. The *external* approach involves using collateral (i.e., extra test) data to identify items for an SRI scale. Here, individuals are classified into known groups based on criteria that are independent of scale scores (e.g., psychiatric diagnoses) and items are chosen based on their empirical ability to differentiate among members of different groups. The method is sometimes also called *empirical keying*. Self-report inventory developers who view personality or psychopathology categorically and seek to develop empirical methods for classifying individuals into predetermined categories typically use the external scale construction method. Often, these categories correspond to diagnostic classes such as schizophrenia or major depression. As would be expected, scale developers who rely on this approach typically assume a clinical perspective on personality assessment.

Ellis (1946) highlighted a major limitation of the external approach in his critique of SRIs as measures of personality and psychopathology. That is, their validity is constrained by the criteria that are used in their development. Absent consensually agreed-upon criteria for classification (a situation not uncommon in psychological assessment, and what typically motivates efforts to develop a scale to begin with), test developers must rely upon imperfect or controversial external criteria for subject classification, item selection, and subsequent cross-validation. Consequently, scales developed with this method have generally not fared well as predictors of the class membership status that they were designed to predict. However, in some instances (e.g., the MMPI clinical scales), subsequent (to their development) empirical research has guided fruitful application of externally developed scales in ways other than those in which their developers intended originally that they be used, by identifying clinically meaningful correlates of these scales and the patterns of scores among them.

Scale developers who follow the *inductive* approach, according to Burisch (1984), assume that there exists a basic, probably universal personality structure, which they attempt both to discover and to measure. The approach is considered inductive because its adherents do not set out to measure a preconceived set of traits, but instead leave it up to empirical analyses to reveal important personality dimensions and the relations among them. In the process, an SRI is developed to measure the discovered personality structure. Scale developers who apply the inductive approach often adhere to a normal personality perspective on assessment. They typically rely on various forms of factor analysis, and the constructs they identify characteristically are dimensional. A leading example of an inductively derived SRI is Cattell's 16 Personality Factor Questionnaire (16PF; Cattell, Cattell, & Cattell, 1993). Inductive scale development often follows an iterative process of item writing, data collection, factor analysis, and item revision, followed by subsequent rounds of data collection, analysis, and item modification (e.g., Tellegen, 1982).

Finally, Burisch (1984) describes the *deductive* approach to personality scale construction as one in which developers start with a conceptually grounded personality model and rationally write or select items that are consonant with their conceptualization. Most early personality and psychopathology SRI developers followed this approach in developing the MMPI precursors so devastatingly criticized by Allport (1937) and Ellis (1946). Consequently, deductive scale construction was viewed for many years as an inferior, less sophisticated form of SRI development. Burisch argued and demonstrated that these seemingly less sophisticated scale development techniques often yield measures that compare quite favorably with products of external and inductive scale construction. The three approaches to scale construction are not mutually exclusive. Any combination of the three may be used in constructing an SRI scale, or different sets of scales within the same instrument. For example, the MMPI-2 (Butcher et al., 2001) contains three sets of scales, each initially based on a different one of the three approaches to scale construction—the clinical scales, originally (Hathaway, 1956; Hathaway & McKinley, 1940, 1942; McKinley & Hathaway, 1940, 1942, 1944) based on the external method; the Content Scales (Butcher, Graham, Williams, & Ben-Porath, 1990), constructed with a modified deductive approach; and the Personality Psychopathology Five (PSY-5; Harkness, McNulty, & Ben-Porath, 1995), the end product of an inductive research project (Harkness & McNulty, 1994).

(b) Discuss different learning disabilities and their educational and psychological consequences. Suggest relevant remedial measures in this context. 30

TOPIC: *Application of Psychology to Educational Field*
SUBTOPIC: *Learning Disabled and their Training*
LEVEL: *Easy*
NATURE: *Applied*

REFERENCE:

Learning disability

Learning disability (sometimes called a learning disorder or learning difficulty), is a classification including several disorders in which a person has difficulty learning in a typical manner, usually caused by an unknown factor or factors. The unknown factor is the disorder that affects the brain's ability to receive and

process information. This disorder can make it problematic for a person to learn as quickly or in the same way as someone who is not affected by a learning disability. People with a learning disability have trouble performing specific types of skills or completing tasks if left to figure things out by themselves or if taught in conventional ways.

Some forms of learning disability are incurable. However, with appropriate cognitive/academic interventions, many can be overcome. Individuals with learning disabilities can face unique challenges that are often pervasive throughout the lifespan. Depending on the type and severity of the disability, interventions may be used to help the individual learn strategies that will foster future success. Some interventions can be quite simplistic, while others are intricate and complex. Teachers and parents will be a part of the intervention in terms of how they aid the individual in successfully completing different tasks. School psychologists quite often help to design the intervention, and coordinate the execution of the intervention with teachers and parents. Social support can be a crucial component for students with learning disabilities in the school system, and should not be overlooked in the intervention plan. With the right support and intervention, people with learning disabilities can succeed in school and go on to be successful later in life.

Definitions

In the 1980s, the National Joint Committee on Learning Disabilities (NJCLD) defines the term learning disability as:

a heterogeneous group of disorders manifested by significant difficulties in the acquisition and use of listening, speaking, reading, writing, reasoning or mathematical abilities. These disorders are intrinsic to the individual and presumed to be due to Central Nervous System Dysfunction. Even though a learning disability may occur concomitantly with other handicapping conditions (e.g. sensory impairment, mental retardation, social and emotional disturbance) or environmental influences (e.g. cultural differences, insufficient/inappropriate instruction, psychogenic factors) it is not the direct result of those conditions or influences.

The NJCLD used the term to indicate a discrepancy between a child's apparent capacity to learn and his or her level of achievement.

The 2002 LD Roundtable produced the following definition:

"Concept of LD: Strong converging evidence supports the validity of the concept of specific learning disabilities (SLD). This evidence is particularly impressive because it converges across different indicators and methodologies. The central concept of SLD involves disorders of learning and cognition that are intrinsic to the individual. SLD are specific in the sense that these disorders each significantly affect a relatively narrow range of academic and performance outcomes. SLD may occur in combination with other disabling conditions, but they are not due primarily to other conditions, such as mental retardation, behavioral disturbance, lack of opportunities to learn, or primary sensory deficits."

The term "learning disability" does not exist in DSM-IV, but it has been proposed that it be added to DSM-5, and incorporate the conditions learning disorder not otherwise specified and disorder of written expression.

Types of learning disabilities

Learning disabilities can be categorized either by the type of information processing that is affected or by the specific difficulties caused by a processing deficit.

By stage of information processing

Learning disabilities fall into broad categories based on the four stages of information processing used in learning: input, integration, storage, and output.

Input: This is the information perceived through the senses, such as visual and auditory perception. Difficulties with visual perception can cause problems with recognizing the shape, position and size of items seen. There can be problems with sequencing, which can relate to deficits with processing time intervals or temporal perception. Difficulties with auditory perception can make it difficult to screen out competing sounds in order to focus on one of them, such as the sound of the teacher's voice. Some children appear to be unable to process tactile input. For example, they may seem insensitive to pain or dislike being touched.

Integration: This is the stage during which perceived input is interpreted, categorized, placed in a sequence, or related to previous learning. Students with problems in these areas may be unable to tell a story in the correct sequence, unable to memorize sequences of information such as the days of the week, able to understand a new concept but be unable to generalize it to other areas of learning, or able to learn facts but be unable to put the facts together to see the "big picture." A poor vocabulary may contribute to problems with comprehension.

Storage: Problems with memory can occur with short-term or working memory, or with long-term memory. Most memory difficulties occur in the area of short-term memory, which can make it difficult to learn new material without many more repetitions than is usual. Difficulties with visual memory can impede learning to spell.

Output: Information comes out of the brain either through words, that is, language output, or through muscle activity, such as gesturing, writing or drawing. Difficulties with language output can create problems with spoken language, for example, answering a question on demand, in which one must retrieve information from storage, organize our thoughts, and put the thoughts into words before we speak. It can also cause trouble with written language for the same reasons. Difficulties with motor abilities can cause problems with gross and fine motor skills. People with gross motor difficulties may be clumsy, that is, they may be prone to stumbling, falling, or bumping into things. They may also have trouble running, climbing, or learning to ride a bicycle. People with fine motor difficulties may have trouble buttoning shirts, tying shoelaces, or with handwriting.

By function impaired

Deficits in any area of information processing can manifest in a variety of specific learning disabilities. It is possible for an individual to have more than one of these difficulties. This is referred to as comorbidity or co-occurrence of learning disabilities. In the UK, the term dual diagnosis is often used to refer to co-occurrence of learning difficulties.

Reading disorder (ICD-10 and DSM-IV codes: F81.0/315.00)

The most common learning disability. Of all students with specific learning disabilities, 70%-80% have deficits in reading. The term "Developmental Dyslexia" is often used as a synonym for reading disability; however, many researchers assert that there are different types of reading disabilities, of which dyslexia is one. A reading disability can affect any part of the reading process, including difficulty with accurate or fluent word recognition, or both, word decoding, reading rate, prosody (oral reading with expression), and reading comprehension. Before the term "dyslexia" came to prominence, this learning disability used to be known as "word blindness."

Common indicators of reading disability include difficulty with phonemic awareness—the ability to break up words into their component sounds, and difficulty with matching letter combinations to specific sounds (sound-symbol correspondence).

Writing disorder (ICD-10 and DSM-IV codes F81.1/315.2)

Speech and language disorders can also be called Dysphasia/Aphasia (coded F80.0-F80.2/315.31 in ICD-10 and DSM-IV).

Impaired written language ability may include impairments in handwriting, spelling, organization of ideas, and composition. The term "dysgraphia" is often used as an overarching term for all disorders of written expression. Others, such as the International Dyslexia Association, use the term "dysgraphia" exclusively to refer to difficulties with handwriting.

Math disability (ICD-10 and DSM-IV codes F81.2-3/315.1)

Sometimes called dyscalculia, a math disability can cause such difficulties as learning math concepts (such as quantity, place value, and time), difficulty memorizing math facts, difficulty organizing numbers, and understanding how problems are organized on the page. Dyscalculics are often referred to as having poor "number sense".

Non ICD-10/DSM

- **Nonverbal learning disability:** Nonverbal learning disabilities often manifest in motor clumsiness, poor visual-spatial skills, problematic social relationships, difficulty with math, and poor organizational skills. These individuals often have specific strengths in the verbal domains, including early speech, large vocabulary, early reading and spelling skills, excellent rote-memory and auditory retention, and eloquent self-expression.
- **Disorders of speaking and listening:** Difficulties that often co-occur with learning disabilities include difficulty with memory, social skills and executive functions (such as organizational skills and time management).
- **Auditory processing disorder:** Difficulties processing auditory information include difficulty comprehending more than one task at a time and a relatively stronger ability to learn visually.

Response to Intervention (RTI)

Much current research has focused on a treatment-oriented diagnostic process known as response to intervention (RTI). Researcher recommendations for implementing such a model include early screening for all students, placing those students who are having difficulty into research-based early intervention programs, rather than waiting until they meet diagnostic criteria. Their performance can be closely monitored to determine whether increasingly intense intervention results in adequate progress. Those who respond will not require further intervention. Those who do not respond adequately to regular classroom instruction (often called "Tier 1 instruction") and a more intensive intervention (often called "Tier 2" intervention) are considered "nonresponders." These students can then be referred for further assistance through special education, in which case they are often identified with a learning disability. Some models of RTI include a third tier of intervention before a child is identified as having a learning disability.

A primary benefit of such a model is that it would not be necessary to wait for a child to be sufficiently far behind to qualify for assistance. This may enable more children to receive assistance before experiencing significant failure, which may in turn result in fewer children who need intensive and expensive special education services. In the United States, the 2004 reauthorization of the Individuals with Disabilities Education Act permitted states and school districts to use RTI as a method of identifying students with learning disabilities. RTI is now the primary means of identification of learning disabilities in Florida.

The process does not take into account children's individual neuropsychological factors such as phonological awareness and memory, that can help design instruction. Second, RTI by design takes considerably longer than established techniques, often many months to find an appropriate tier of intervention. Third, it requires a strong intervention program before students can be identified with a learning disability. Lastly, RTI is considered a regular education initiative and is not driven by psychologists, reading specialists, or special educators.

Assessment

Many normed assessments can be used in evaluating skills in the primary academic domains: reading, including word recognition, fluency, and comprehension; mathematics, including computation and problem solving; and written expression, including handwriting, spelling and composition.

The most commonly used comprehensive achievement tests include the Woodcock-Johnson III (WJ III), Weschler Individual Achievement Test II (WIAT II), the Wide Range Achievement Test III (WRAT III), and the Stanford Achievement Test-10th edition. These tests include measures of many academic domains that are reliable in identifying areas of difficulty.

In the reading domain, there are also specialized tests that can be used to obtain details about specific reading deficits. Assessments that measure multiple domains of reading include Gray's Diagnostic Reading Tests-2nd edition (GDRT II) and the Stanford Diagnostic Reading Assessment. Assessments that measure reading subskills include the Gray Oral Reading Test IV - Fourth Edition (GORT IV), Gray Silent Reading Test, Comprehensive Test of Phonological Processing (CTOPP), Tests of Oral Reading and Comprehension Skills (TORCS), Test of Reading Comprehension 3 (TORC-3), Test of Word Reading Efficiency (TOWRE), and the Test of Reading Fluency. A more comprehensive list of reading assessments may be obtained from the Southwest Educational Development Laboratory.

The purpose of assessment is to determine what is needed for intervention, which also requires consideration of contextual variables and whether there are comorbid disorders that must also be identified and treated, such as behavioral issues or language delays.

Treatment and intervention

Interventions include:

Mastery model:

- Learners work at their own level of mastery.
- Practice
- Gain fundamental skills before moving onto the next level

Note: this approach is most likely to be used with adult learners or outside the mainstream school system.

Direct Instruction:

- Highly structured, intensive instruction
- Emphasizes carefully planned lessons for small learning increments
- Scripted lesson plans
- Rapid-paced interaction between teacher and students
- Correcting mistakes immediately
- Achievement-based grouping
- Frequent progress assessments

Classroom adjustments:

- Special seating assignments
- Alternative or modified assignments
- Modified testing procedures
- Quiet environment

Special equipment:

- Word processors with spell checkers and dictionaries
- Text-to-speech and speech-to-text programs

- Talking calculators
- Books on tape
- Computer-based activities such as the hundreds of free games linked to the Learning Disability Directory

Classroom assistants:

- Note-takers
- Readers
- Proofreaders
- Scribes

Special Education:

- Prescribed hours in a resource room
- Placement in a resource room
- Enrollment in a special school for learning disabled students
- Individual Education Plan (IEP)
- Educational therapy

Sternberg has argued that early remediation can greatly reduce the number of children meeting diagnostic criteria for learning disabilities. He has also suggested that the focus on learning disabilities and the provision of accommodations in school fails to acknowledge that people have a range of strengths and weaknesses, and places undue emphasis on academic success by insisting that people should receive additional support in this arena but not in music or sports. Other research has pinpointed the use of resource rooms as an important—yet often politicized component of educating students with learning disabilities.

Special education

Special education is the education of students with special needs in a way that addresses the students' individual differences and needs. Ideally, this process involves the individually planned and systematically monitored arrangement of teaching procedures, adapted equipment and materials, accessible settings, and other interventions designed to help learners with special needs achieve a higher level of personal self-sufficiency and success in school and community than would be available if the student were only given access to a typical classroom education.

Common special needs include challenges with learning, communication challenges, emotional and behavioral disorders, physical disabilities, and developmental disorders. Students with these kinds of special needs are likely to benefit from additional educational services such as different approaches to teaching, use of technology, a specifically adapted teaching area, or resource room.

Intellectual giftedness is a difference in learning and can also benefit from specialized teaching techniques or different educational programs, but the term "special education" is generally used to specifically indicate instruction of students whose special needs reduce their ability to learn independently or in an ordinary classroom, and gifted education is handled separately.

In most developed countries, educators are modifying teaching methods and environments so that the maximum number of students are served in general education environments. Special education in developed countries is often regarded less as a "place" and more as "a range of services, available in every school." Integration can reduce social stigmas and improve academic achievement for many students.

The opposite of special education is general education. General education is the standard curriculum presented with standard teaching methods and without additional supports.

Identifying students with special needs

Some children are easily identified as candidates for special needs from their medical history. They may have been diagnosed with a genetic condition that is associated with mental retardation, may have various forms of brain damage, may have a developmental disorder, may have visual or hearing disabilities, or other disabilities.

Among students whose identification is less obvious, such as students with learning difficulties, two primary methods have been used for identifying them: the discrepancy model and the response to intervention model. The discrepancy model depends on the teacher noticing that the students' achievements are noticeably below what is expected. The response to intervention model advocates earlier intervention.

In the discrepancy model, a student receives special educational services for a specific learning difficulty (SLD) if and only if the student has at least normal intelligence and the student's academic achievement is below what is expected of a student with his or her IQ. Although the discrepancy model has dominated the school system for many years, there has been substantial criticism of this approach (e.g., Aaron, 1995, Flanagan and Mascolo, 2005) among researchers. One reason for criticism is that diagnosing SLDs on the basis of the discrepancy between achievement and IQ does not predict the effectiveness of treatment. Low academic achievers who also have low IQ appear to benefit from treatment just as much as low academic achievers who have normal or high intelligence.

The alternative approach, response to intervention, identifies children who are having difficulties in school in their first or second year after starting school. They then receive additional assistance such as participating in a reading remediation program. The response of the children to this intervention then determines whether they are designated as having a learning disability. Those few who still have trouble may then receive designation and further assistance. Sternberg (1999) has argued that early remediation can greatly reduce the number of children meeting diagnostic criteria for learning disabilities. He has also suggested that the focus on learning disabilities and the provision of accommodations in school fails to acknowledge that people have a range of strengths and weaknesses and places undue emphasis on academics by insisting that people should be propped up in this arena and not in music or sports.

Individual needs

A special education program should be customized to address each individual student's unique needs. Special educators provide a continuum of services, in which students with special needs receive services in varying degrees based on their individual needs. Special education programs need to be individualized so that they address the unique combination of needs in a given student.

In the United States, Canada, and the UK, educational professionals used the initialism IEP when referring to a student's individualized education plan.

Students with special needs are assessed to determine their specific strengths and weaknesses. Placement, resources, and goals are determined on the basis of the student's needs. Accommodations and Modifications to the regular program may include changes in curriculum, supplementary aides or equipment, and the provision of specialized physical adaptations that allow students to participate in the educational environment to the fullest extent possible. Students may need this help to access subject matter, to physically gain access to the school, or to meet their emotional needs. For example, if the assessment determines that the student cannot write by hand because of a physical disability, then the school might provide a computer for typing assignments, or allow the student to answer questions orally instead. If the school determines that the student is severely distracted by the normal activities in a large, busy classroom, then the student might be placed in a smaller classroom such as a resource room.

Methods of provision

PS 721, a special school in Brooklyn, New York exclusively for the education of students with special needs.

Schools use different approaches to providing special education services to identified students. These can be broadly grouped into four categories, according to whether and how much contact the student with special needs has with non-disabled students (using North American terminology):

- **Inclusion:** In this approach, students with special educational needs spend all, or at least more than half, of the school day with students who do not have special educational needs. Because inclusion can require substantial modification of the general curriculum, most schools use it only for selected students with mild to moderate special needs, for which is accepted as a best practice. Specialized services may be provided inside or outside the regular classroom, depending on the type of service. Students may occasionally leave the regular classroom to attend smaller, more intensive instructional sessions in a resource room, or to receive other related services that might require specialized equipment or might be disruptive to the rest of the class, such as speech and language therapy, occupational therapy, physical therapy, or might require greater privacy, such as counseling sessions with a social worker.
- **Mainstreaming** refers to the practice of educating students with special needs in classes with non-disabled students during specific time periods based on their skills. Students with special needs are segregated in separate classes exclusively for students with special needs for the rest of the school day.
- **Segregation in a separate classroom or special school exclusively for students with special needs:** In this model, students with special needs spend no time in classes with non-disabled students. Segregated students may attend the same school where regular classes are provided, but spend all instructional time exclusively in a separate classroom for students with special needs. If their special class is located in an ordinary school, they may be provided opportunities for social integration outside the classroom, e.g., by eating meals with non-disabled students. Alternatively, these students may attend a special school.
- **Exclusion:** A student who does not receive instruction in any school is excluded from school. Historically, most students with special needs have been excluded from school, and such exclusion may still occur where there is no legal mandate for special education services, such as in developing countries. It may also occur when a student is in hospital, housebound, or detained by the criminal justice system. These students may receive one-on-one instruction or group instruction. Students who have been suspended or expelled are not considered excluded in this sense.

Special schools

A special school is a school catering for students who have special educational needs due to severe learning difficulties, physical disabilities or behavioral problems. Special schools may be specifically designed, staffed and resourced to provide the appropriate special education for children with additional needs. Students attending special schools generally do not attend any classes in mainstream schools.

Special schools provide individualised education, addressing specific needs. Student:teacher ratios are kept low, often 6:1 or lower depending upon the needs of the children. Special schools will also have other facilities for the development of children with special needs, such as soft play areas, sensory rooms, or swimming pools, which are vital for the therapy of certain conditions.

In recent times, places available in special schools are declining as more children with special needs are educated in mainstream schools. There will always be some children, however, whose learning needs are not appropriately met in a regular classroom setting and will require specialised education and resources to provide the level of support they require. An example of a special need that may require the intensive services a special school provides is mental retardation. However this practice is often frowned upon by school districts in the USA in the light of Least Restrictive Environment as mandated in the Individuals with Disabilities Education Act.

In the United States, an alternative is a special classroom, also called a self-contained classroom, which is a separate room dedicated solely to the education of students with special needs within a larger school that also provides general education. These classrooms are typically staffed by specially trained teachers, who

provide specific, individualized instruction to individuals and small groups of students with special needs. Self-contained classrooms, because they are located in a general education school, may have students who remain in the self-contained classroom full time, or students who are included in certain general education classes. In the United States a part-time alternative that is appropriate for some students is sometimes called a resource room.

Instructional strategies

Different instructional techniques are used for some students with special educational needs. Instructional strategies are classified as being either accommodations or modifications.

An accommodation is a reasonable adjustment to teaching practices so that the student learns the same material, but in a format that is accessible to the student. Accommodations may be classified by whether they change the presentation, response setting, or scheduling. For example, the school may accommodate a student with visual impairments by providing a large-print textbook; this is a presentation accommodation.

A modification changes or adapts the material to make it simpler. Modifications may change what is learned, how difficult the material is, what level of mastery the student is expected to achieve, whether and how the student is assessed, or any another aspect of the curriculum. For example, the school may modify a reading assignment for a student with reading difficulties by substituting a shorter, easier book. A student may receive both accommodations and modifications.

Examples of modifications

- Skipping subjects: Students may be taught less information than typical students, skipping over material that the school deems inappropriate for the student's abilities or less important than other subjects. For example, students whose fine motor skills are weak may be taught to print block letters, but not cursive handwriting.
- Simplified assignments: Students may read the same literature as their peers but have a simpler version, for example Shakespeare with both the original text and a modern paraphrase available.
- Shorter assignments: Students may do shorter homework assignments or take shorter, more concentrated tests, e.g. 10 math problems instead of 30.
- Extra aids: If students have deficiencies in working memory, a list of vocabulary words, called a word bank, can be provided during tests, to reduce lack of recall and increase chances of comprehension. Students might use a calculator when other students are not.
- Extended time: Students with lower processing speed may benefit from extended time in assignments and/or tests in order to comprehend questions, recall information, and synthesize knowledge.

Examples of accommodations

- Response accommodations: Typing homework assignments rather than hand-writing them (considered a modification if the subject is learning to write by hand). Having someone else write down answers given verbally.
- Presentation accommodations: Listening to audio books rather than reading printed books. Agencies like Recording for the Blind and Dyslexic in America and RNIB National Library Service in the UK offer a variety of titles on tape and CD. These may be used as substitutes for the text, or as supplements intended to bolster the students' reading fluency and phonetic skills. Similar options include designating a person to read text to the student, or providing text to speech software. (Considered a modification if the purpose of the assignment is reading skills acquisition). Designating a person to take notes during lectures. Using a talking calculator rather than one with only a visual display.
- Setting accommodations: Taking a test in a quieter room. Moving the class to a room that is physically accessible, e.g., on the first floor of a building or near an elevator. Arranging seating assignments to benefit the student, e.g., by sitting at the front of the classroom.

- Scheduling accommodations: Students may be given rest breaks or extended time on tests (may be considered a modification, if speed is a factor in the test).

All developed countries permit or require some degree of accommodation for students with special needs, and special provisions are usually made in examinations which take place at the end of formal schooling.

In addition to how the student is taught the academic curriculum, schools may provide non-academic services to the student. These are intended ultimately to increase the student's personal and academic abilities. Related services include developmental, corrective, and other supportive services as are required to assist a student with special needs and includes speech and language pathology, audiology, psychological services, physical therapy, occupational therapy, counseling services, including rehabilitation counseling, orientation and mobility services, medical services as defined by regulations, parent counseling and training, school health services, school social work, assistive technology services, other appropriate developmental or corrective support services, appropriate access to recreation and other appropriate support services. In some countries, most related services are provided by the schools; in others, they are provided by the normal healthcare and social services systems.

As an example, students who have autistic spectrum disorders, poor impulse control, or other behavioral challenges may learn self-management techniques, be kept closely on a comfortably predictable schedule, or given extra cues to signal activities.

Issues

At-risk students (those with educational needs that are not associated with a disability) are often placed in classes with students who have disabilities. Critics assert that placing at-risk students in the same classes as students with disabilities may impede the educational progress of people with disabilities. Some special education classes have been criticized for a watered-down curriculum.

The practice of inclusion (in mainstream classrooms) has been criticized by advocates and some parents of children with special needs because some of these students require instructional methods that differ dramatically from typical classroom methods. Critics assert that it is not possible to deliver effectively two or more very different instructional methods in the same classroom. As a result, the educational progress of students who depend on different instructional methods to learn often fall even further behind their peers.

Parents of typically developing children sometimes fear that the special needs of a single "fully included" student will take critical levels of attention and energy away from the rest of the class and thereby impair the academic achievements of all students.

Some parents, advocates, and students have concerns about the eligibility criteria and their application. In some cases, parents and students protest the students' placement into special education programs. For example, a student may be placed into the special education programs due to a mental health condition such as obsessive compulsive disorder, depression, anxiety, panic attacks or ADHD, while the student and his parents believe that the condition is adequately managed through medication and outside therapy. In other cases, students whose parents believe they require the additional support of special education services are denied participation in the program based on the eligibility criteria.

Whether it is useful and appropriate to attempt to educate the most severely disabled children, such as children who are in a persistent vegetative state, is debated. While many severely disabled children can learn simple tasks, such as pushing a buzzer when they want attention, some children may be incapable of learning. Some parents and advocates say that these children would be better served by substituting improved physical care for any academic program. In other cases, they question whether teaching such non-academic subjects, such as pushing a buzzer, is properly the job of the school system, rather than the health care system.

Alternative therapies for developmental and learning disabilities

Alternative therapies for developmental and learning disabilities include a range of practices used in the treatment of dyslexia, ADHD, Asperger syndrome, autism, Down syndrome and other developmental and learning disabilities. Treatments include changes in diet, dietary supplements, biofeedback, chelation therapy, homeopathy, massage and yoga. These therapies generally rely on theories that have little scientific basis, lacking well-controlled, large, randomized trials to demonstrate safety and efficacy; small trials that have reported beneficial effects can be generally explained by the ordinary waxing and waning of the underlying conditions.

Treatment needs

There are a number of non-standard treatments for developmental and learning disabilities. There is a call for alternative therapies particularly when a condition lacks a reliable remediation. For example, there is no cure for autism; the main goals of mainstream behavioral and medical management are to lessen associated deficits and family distress, and to increase quality of life and functional independence. Some alternative therapies, such as gluten-free, casein-free diets, may be appealing to some parents because the treatment recommended by most experts is thought to be "cold and manipulative". Parents may also consider a drug treatment for attention deficit as avoidable. Alternative treatments to a stimulant medication range from natural products to psychotherapeutic techniques and highly technological interventions. It has been argued that although texts that promote alternative therapies do not directly accuse parents of inadequacy, the claims that the disability is caused by certain factors, such as poor nutrition, supports the culture of mother-blame.

Prevalence

From 12% to 64% of families of a child with ADHD use an alternative therapy, with the lower estimates likely come from narrower definitions of complementary and alternative medicine (CAM). School teachers, family and friends are the most common source of suggestion of alternative therapies for ADHD. In 2003, 64 percent of families of a child with special health care needs reported that they use alternative therapies. These therapies included spiritual healing, massage, chiropractic, herbs and special diets, homeopathy, self hypnosis and other methods of complementary and alternative medicine. The need for an alternative therapy was related to the child's condition and to its evaluation as repairable or not. A 2008 study found that about 40% of Hong Kong children with autism spectrum disorder were treated with CAM, with the most popular therapies being acupuncture, sensory integration therapy, and Chinese herbology; the 40% is a lower prevalence than in Canada and the U.S., where biological-based therapies such as special diets predominate. In the U.S. CAM is used by an estimated 20–40% of healthy children, 30–70% of children with special health care needs, and 52–95% of children with autism, and a 2009 survey of U.S. primary care physicians found that more of them recommended than discouraged multivitamins, essential fatty acids, melatonin, and probiotics as CAM treatments for autism.

Evidence basis

Complementary and alternative medicine often lacks support in scientific evidence, so its safety and efficacy are often questionable. Some therapists who advocate CAM may claim to cure many conditions or disabilities that are not diseases and therefore cannot be "cured".

While some experts encourage parents to be open-minded, others argue that treatments and services with no proven efficacy have opportunity costs because they displace the opportunity to participate in efficient treatments and services. According to Scott O. Lilienfeld,

many individuals who spend large amounts of time and money on ineffective treatments may be left with precious little of either. As a result, they may forfeit the opportunity to obtain treatments that could be more helpful. Thus, even ineffective treatments that are by themselves innocuous can indirectly produce negative consequences.

There is often little or no scientific evidence for effectiveness of alternative therapies. It may be difficult to separate the success of a specific treatment from natural development or from the benefits of the

individual's positive attitude. Some phenomena to be considered when evaluating studies are the placebo effect, the Hawthorne effect and different types of attentional and motivational effects. Doubtless, people with disabilities may benefit from some alternative therapies, at least for relaxation, social interaction, personal development and self-esteem. This can be important because many children with learning difficulties suffer from low self-esteem.

For instance, a randomised controlled trial with dyslexic children was undertaken to evaluate the efficiency of Sunflower therapy which includes applied kinesiology, physical manipulation, massage, homeopathy, herbal remedies and neuro-linguistic programming. There were no significant improvements in cognitive nor literacy test performance associated with the treatment, but there were significant improvements in self-esteem for the treatment group. This study did not control for the placebo effect.

Precautions

Because many alternative therapies have not been evaluated in scientific studies there may be no guarantee for their safety. In most countries, with the exception of osteopathy and chiropractic, complementary medical disciplines have not been state registered. This means there is no law to forbid anyone from setting up as a practitioner even with no qualification nor experience. There are also a lot of 'universities' offering all kinds of alternative medicine degrees for a fee, and their certificates can look very real. These organisations may, on the other hand, offer ongoing training and an insurance to their registered members.

Experts of alternative therapies advise customers to be careful when choosing a therapist. Before taking a therapy, it is wise to find out whether or not previous customers recommend it, the therapist has a qualification and is a registered practitioner, whether the therapy could be dangerous, how much the treatment costs, and whether money will be refunded if the therapy does not work.

Learning Disability Coalition

The Learning Disability Coalition is a group of fourteen organisations which campaigns to secure better funding for social care for people with learning disabilities in England.

The Coalition was formed in May 2007. It believes that better funding from the UK Government is required to help people with learning disabilities to secure a full range of rights and opportunities. The LDC aims to provide a unified voice for people with learning disabilities to government and other key decision makers; to raise awareness of financial pressures on services, and achieve an evidence-based assessment of the long-term resource requirements for people with learning disabilities

Its members are:

- The Foundation for People with Learning Disabilities
- Mencap
- People First
- National Forum for People with Learning Difficulties
- Sense
- Turning Point
- Down's Syndrome Association
- United Response
- BILD (British Institute of Learning Disabilities)
- ARC Association for Real Change
- National Autistic Society
- Real Life Options
- National Family Carer Network
- Voyage

Protect the Frontline

In 2010 the LDC launched its 'Protect the Frontline' campaign which is calling on politicians to keep to their promises and protect frontline services for people with a learning disability. As part of the campaign, the LDC produced 'Stories from the Frontline', which included a series of diaries by people with a learning disability. These diaries helped to show the importance of frontline social care and the difference that it makes to their lives and the lives of their families. The LDC has been monitoring cuts to social care through its cutswatch feature, and since the announcement of the Comprehensive Spending Review, has been calling on local councillors to ensure that social care spending is protected at a local level.

3. Answer the following in about 250 words:

20x3=60

(a) Explain the assumptions underlying cognitive therapy. Critically comment on its utility in the treatment of mental disorders.

TOPIC: *Therapeutic Approaches*

SUBTOPIC: *Cognitive therapies*

LEVEL: *Easy*

NATURE: *Fundamental - Applied*

VISION IAS

REFERENCE:

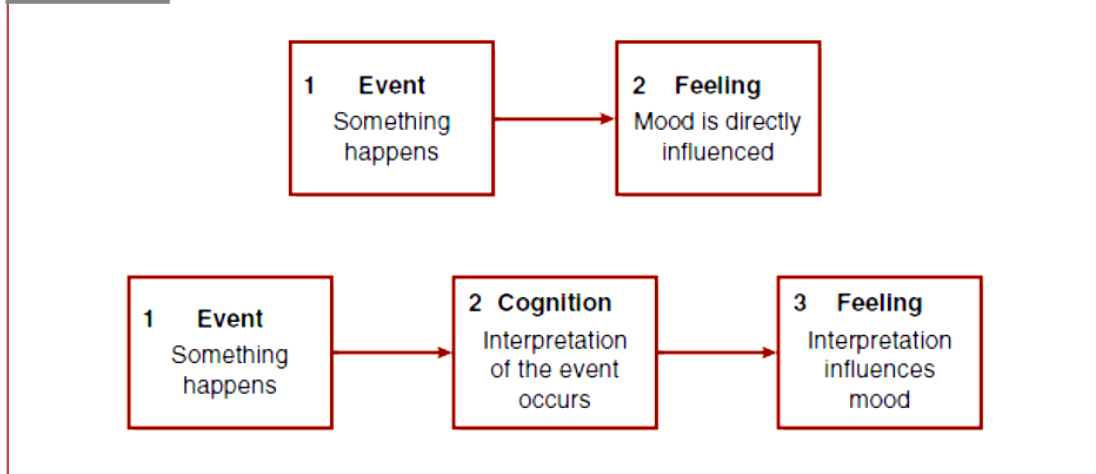
Simply put, the goal of cognitive therapy is logical thinking. The word *cognition*, after all, is basically synonymous with the word *thought*. Thus, cognitive therapists fundamentally presume that the way we think about events determines the way we respond. In other words, "individuals' interpretations and perceptions of current situations, events, and problems influence how they react" (Beck, 2002, p.163). Psychological problems arise from illogical cognitions. For example, an illogical (or irrational or unrealistic) interpretation of a life event—a relationship breakup, an exam, a comment from a friend—can cause crippling depression or anxiety. However, psychological wellness stems from logical cognitions. That is, when the cognitions appropriately match the event, they can lead to more adaptive, healthy reactions. Therefore, the role of the cognitive therapist is to fix faulty thinking (Bermudes, Wright, & Casey, 2009; Clark, Hollifield, Leahy, & Beck, 2009; Dobson & Dobson, 2009).

The Importance of Cognition

When they refer to **cognitions**, cognitive therapists use lots of terms interchangeably: *thoughts*, *beliefs*, *interpretations*, and *assumptions*, to name a few. Whatever we call them, we often overlook their importance in our day-to-day lives. When someone asks, "Why are you so happy?" or "Why are you so sad?" we typically point to a recent event that made us happy. We portray it as a two-step model in which things happen and those things directly influence our feelings. The truth, according to cognitive therapists, is that such a two-step model is flawed; specifically, it's missing an important step in the middle. The three-step model that cognitive therapists endorse goes like this: Things happen, we *interpret* those things, and *those interpretations* directly influence our feelings. Thus, "it is not a situation in and of itself that determines what people feel but rather the way in which they construe a situation" (Beck, 1995, p. 14). In other words, events don't make us happy or sad. Instead, the way we think about those events does. (See Figure 15.1.)

Figure 15.1

Two-Step Model (Ignoring Cognition) Versus Three-Step Model (Incorporating Cognition)



TWO APPROACHES TO COGNITIVE THERAPY

There are two widely recognized pioneers of cognitive therapy: Albert Ellis and Aaron Beck. As described earlier, each developed his own version of cognitive therapy at approximately the same time, and although each was influenced somewhat by the other, their approaches evolved somewhat independently. The two approaches unquestionably overlap in terms of their emphasis on improving clients' symptoms via correcting illogical thinking, but the terminology and, at times, the techniques they employ distinguish them from each other. Let's consider each separately.

Albert Ellis

For many years, Albert Ellis called his approach to therapy Rational Emotive Therapy (RET), but later in his career, he altered the name to **Rational Emotive Behavior Therapy (REBT)**. We'll use the more recent name here, understanding that both refer to Ellis's version of cognitive therapy.

As the first two words of the REBT label indicate, Ellis's therapy approach emphasizes a connection between rationality and emotion (Dryden, 2009; A. Ellis, 2008). Ellis (1962) argues that if we can make our beliefs less irrational, we can live happier lives:

The central theme of [REBT] is that man is a uniquely rational, as well as uniquely irrational animal; that his emotional or psychological disturbances are largely a result of his thinking illogically or irrationally; and that he can rid himself of most of his emotional or mental unhappiness, ineffectuality, and disturbance if he learns to maximize his rational and minimize his irrational thinking. (p. 36)

The ABCDE Model

One of Ellis's most enduring and clinically useful contributions is his **ABCDE model** for understanding and recording the impact of cognitions on emotions (also known as the ABC model) (e.g., Dryden, 1995, 2009; A. Ellis, 2008; Ellis & Grieger, 1977; Ellis & Harper, 1975). By creating this model, Ellis was able to frame the essential aspects of cognitive therapy into an accessible acronym that enabled its use by thousands of therapists and clients. In the ABCDE model, A, B, and C represent the three-step model described near the beginning of this chapter in which events lead to thoughts, which in turn lead to feelings. Ellis's model simply replaces these three terms with more easily remembered terms: **Activating event (A)**, **Belief (B)**, and **emotional Consequence (C)**. According to Ellis, irrational beliefs are toxic because they function as rigid, dogmatic demands that we apply to ourselves—for example, "I must get an A in every class," "I need to be dating someone," or "I can't let my family down." Although these may be strong preferences, they are

not, in fact, “musts” or absolute rules. Moreover, we tend to couple these demands with overestimations of the consequences of failure—“If I don’t get an A, I’ll flunk out of school and end up on the street,” “If I’m not dating anyone, I’m completely worthless,” or “If I let my family down, their disapproval will destroy me.” Ellis sees flawed logic in all these self-statements and opportunity for therapeutic benefit in correcting them.

To accomplish this correction, Ellis’s model adds two more steps, D and E. In his model, D stands for **Dispute**, and E stands for **Effective new belief**. Specifically, it is the irrational belief (B) that is the target of the dispute. The addition of this step is particularly important within Ellis’s model of cognitive therapy. Ellis’s model not only helps clients identify irrational beliefs (B) that may intervene with the events in their lives (A) and their subsequent feelings (C), it urges clients to dispute those beliefs as well. This can be an empowering experience for clients who have been stuck in an ABC sequence that leaves them feeling perpetually unhappy, anxious, and so on. When they realize that their experience need not stop at C (the unwanted feeling), that they have the right to challenge the belief that caused C and replace it with something more rational, therapeutic benefit is in the works. In Ellis’s model, disputing often takes the form of pointed questions or statements that attack the irrational nature of beliefs or labels that can be assigned to irrational beliefs to discredit them. Regardless of the form of the dispute, if it is effective, it affords the client the opportunity to replace the original, irrational belief with an effective new belief (E) that is more rational and leads to less troubling feelings (Dryden, 2009; A. Ellis, 2008).

As a clinical example, consider Keyon, a 24-year-old man who recently earned a degree in accounting. Keyon sought therapy from Dr. Liu, a clinical psychologist with a cognitive orientation, because he was struggling with excessive anxiety. Specifically, Keyon was scheduled to take the Certified Public Accountant (CPA) exam to become a certified accountant in about 2 months, but his anxiety about the exam was interfering with his preparation. He intended to study for the exam, but when he tried, he was so anxious that he couldn’t concentrate. In fact, just thinking about the CPA exam made Keyon feel panicky. After Dr. Liu educated Keyon about the cognitive model (specifically, Ellis’s ABCDE model), they were able to identify steps A and C right away: The activating event was studying for (or thinking about) the CPA exam, and the emotional consequence was anxiety. With Dr. Liu’s help, Keyon next identified two beliefs (B) that linked his thoughts of the CPA exam to his feelings of anxiety: “I absolutely have to pass the CPA exam on my first attempt” and “If I don’t pass the CPA exam on my first attempt, my career is doomed, and that would destroy me.” In the next step, disputing (D), Dr. Liu made efforts to question the logic of Keyon’s beliefs:

Who says you have to pass the CPA exam on your first attempt? I understand that’s a preference, but is it a life-or-death necessity? Realistically, don’t quite a few accountants fail the CPA exam on their first try? And don’t many of them pass it later and go on to have successful careers? And even if you don’t end up with the career in accounting that you envisioned, does that mean your life is ruined? There are plenty of ways for you to have a rewarding career that don’t involve accounting at all. In time, Keyon found himself persuaded by the strength of Dr. Liu’s arguments and began to disbelieve his own irrational thoughts. Eventually, he was able to replace his original, irrational beliefs with effective new beliefs (E):

I want to pass the CPA exam on my first attempt, but it’s not an absolute necessity. If I pass it on a later attempt, that will probably work out fine also, and in the big picture, my happiness doesn’t depend entirely on following the career path I’ve envisioned.

These new beliefs greatly reduced Keyon’s anxiety.

The ABCDE model lends itself quite nicely to written format, and cognitive therapists often take advantage of this. It’s likely that Dr. Liu, for example, would have taught Keyon how to view his experiences as ABCDE sequences and chronicle them accordingly. Typically, clients complete forms that are organized into A, B, C, D, and E columns. During sessions or as homework, in retrospect or as an event takes place, clients can sort their experiences into the five-column organizational structure provided by this type of journal form. By doing so, they train themselves to experience life in this sequence. In particular, they become more adept at identifying an irrational belief (B), constructing a dispute (D) in response to the belief, and generating an effective new belief (E). Of course, the goal is not for the clients to depend on this written format for the rest of their lives to feel happier; instead, a five-column ABCDE thought journal can serve as training wheels that

stabilize clients while they learn to think more logically, and once they can stabilize themselves, the ABCDE process takes place within the mind, without any outside aids.

Aaron Beck

Aaron Beck has always used the general term *cognitive therapy* to describe his technique. He originally developed his approach as a way to conceptualize and treat depression (e.g., Beck, 1976; Beck, Rush, Shaw, & Emery, 1979), but it has been very broadly applied since shortly after its inception. (In fact, his daughter, **Judith Beck**, has become a leader of the current generation of cognitive therapists and has spearheaded its application to many new problems.) An important part of Beck's theory of depression is his notion of the **cognitive triad**, in which he argues that three particular cognitions—thoughts about the self, the external world, and the future—all contribute to our mental health. Beck theorized that when all three of these beliefs are negative, they produce depression (Alford & Beck, 1997; Beck, 1995).

The essence of Beck's approach to cognitive therapy, like Ellis's, is to increase the extent to which the client thinks logically. And like Ellis's, Beck's approach incorporates a way of organizing clients' experiences into columns on a written page. In Beck's brand of cognitive therapy, this form is known as a **Dysfunctional Thought Record** (e.g., Beck, 1995, 2002; Freeman et al., 1990; Leahy, 2003), and although its headings differ a bit from Ellis's ABCDE acronym, they function very similarly. Typically, the Dysfunctional Thought Record includes columns for

- a brief description of the event/situation,
- automatic thoughts about the event/situation (and the extent to which the client believes these thoughts),
- emotions (and their intensity),
- an adaptive response (identifying the distortion in the automatic thought and challenging it), and
- outcome (emotions after the adaptive response has been identified and the extent to which the client still believes the automatic thoughts).

Conceptually, the columns in Beck's Dysfunctional Thought Record correspond quite closely to the columns of Ellis's ABCDE forms. For example, in the fourth column ("adaptive response") of a Dysfunctional Thought Record, clients perform essentially the same task they would in Column D ("Dispute") of Ellis's form. For this task, Beck created a vocabulary to identify common ways in which clients' thoughts can be distorted. This vocabulary has become a vital aspect of cognitive therapy. Let's consider it here in more detail.

Common Thought Distortions

An essential step in cognitive therapy is to discredit illogical automatic thoughts by labeling them. To facilitate this labeling, Beck and his followers have identified and defined a list of **common thought distortions** (e.g., Beck, 2002; Beck et al., 1979; Craighead, Craighead, Kazdin, & Mahoney, 1994; Leahy, 2003). Cognitive therapists teach these terms to clients, often using handouts or take-home readings, and train them to use the terms when examining their own thoughts. Examples of these common thought distortions include the following:

- **All-or-nothing thinking.** Irrationally evaluating everything as either wonderful or terrible, with no middle ground or "gray area"
- **Catastrophizing.** Expecting the worst in the future, when realistically, it's unlikely to occur
- **Magnification/minimization.** For negative events, "making a mountain out of a molehill"; for positive events, playing down their importance
- **Personalization.** Assuming excessive personal responsibility for negative events
- **Overgeneralization.** Applying lessons learned from negative experiences more broadly than is warranted
- **Mental filtering.** Ignoring positive events while focusing excessively on negative events
- **Mind reading.** Presuming to know that others are thinking critically or disapprovingly, when knowing what they think is in fact impossible

In Beck's cognitive therapy, when clients assign these thought distortion labels to illogical thoughts, the illogical thoughts grow weaker. Labeling thoughts as illogical enables the client to dismiss them and replace them with more adaptive and logical thoughts, which ultimately decrease the client's psychological distress. As a clinical example, consider Olivia, a 30-year-old woman who was recently divorced after a 3-year marriage and currently lives alone. In her first session with Dr. Zimmerman, a clinical psychologist with a cognitive orientation, Olivia explains that she feels depressed about being without a partner. The comments she made to Dr. Zimmerman could be summed up in these three beliefs: "I'm no good at relationships," "Living alone, even for a short time, is intolerable," and "A lot of my friends are married, but I'm not, so there must be something wrong with me." After educating Olivia about Beck's cognitive approach, including the list of common thought distortions, Dr. Zimmerman and Olivia went to work. Together, they attacked the flawed logic in each of Olivia's beliefs by labeling them as distortions. For example, when Olivia views herself as "no good at relationships," she's over generalizing from the recent divorce. Living alone may not be her preference, but to call it "intolerable" constitutes magnification. And to blame the divorce on herself—"there's something wrong with me"—is personalization that is unfounded and unfair. With repeated practice, Olivia developed the ability to identify and oppose her own illogical thoughts and replace them with more logical alternatives. She never became overjoyed about her divorce or the loneliness in her current life—such a reaction would also be illogical—but she was able to lift herself from a state of despair to a state of contentment and mild hopefulness, which made a tremendous difference in her day-to-day life.

Beliefs as Hypotheses

Beck argued that our beliefs are **hypotheses**, even though we may live our lives as if our beliefs are proven facts. Therefore, a potent way to expose a belief as illogical is to "put it to the test" in real life, just as scientists empirically test their hypotheses in the lab. Beck's approach to cognitive therapy often includes such personal "experiments," frequently in the form of homework, designed to bolster or undermine a client's beliefs (Dobson & Hamilton, 2008; Kuehlwein, 1993; Roth et al., 2002).

OUTCOME ISSUES

The efficacy of cognitive therapy is strongly supported by a body of empirical evidence that is large and continues to grow. In 2002, Judith Beck stated that more than 325 outcome studies had found cognitive therapy efficacious, and the number has certainly increased significantly since that time. The range of psychological disorders for which cognitive therapy works is expansive, including depression, anxiety disorders, bulimia, posttraumatic stress disorder, hypochondriasis, numerous personality disorders, and others (Beck, 2002; Epp, Dobson, & Cottraux, 2009; Prochaska & Norcross, 2010; Roth et al., 2002). And as stated earlier, studies support the use of cognitive therapy for some medical problems and some personality disorders as well. Evidence is starting to accumulate for the third wave, mindfulness-based therapies as well. DBT is particularly well-established as a treatment that works for borderline personality disorder and an increasingly wide range of additional disorders (Dimeff & Koerner, 2007; Lynch et al., 2007; Paris, 2009). Although not as well-established, ACT has accumulated some evidence in the treatment of various anxiety and mood disorders and some other disorders as well (Olatunji & Feldman, 2008; Roemer & Orsillo, 2009).

As a result of its roots in the behavioral movement, cognitive therapists typically emphasize aspects of therapy that facilitate empirical evaluation, such as defining problems in terms that can be overtly measured and observed. If these terms are not blatantly behavioral, they may take the forms of numerical ratings that clients assign to symptoms' severity (such as depressed mood or anxiety level) both before and after cognitive interventions. So, although a client's anxiety may rate a 90 on a 0 to 100 scale before therapy, it may drop to 60 after a few sessions and to 15 by the time therapy is complete. Such objectivity facilitates empirical outcome research designed to determine how well cognitive therapy works.

CT/CBT outcome studies

How effective for which disorders and for how long is CBT effective compared to other procedures? Butler and Beck et al. (2002) reviewed the meta-analyses of treatment outcomes of CBT/CT for a wide range of psychiatric disorders and medical conditions. A search in the literature from 1967 to 2003 pooled a total of

16 methodologically rigorous meta-analyses encompassing more than 9000 subjects from 330 studies. The review focused on effect sizes that contrasted outcomes of CBT with the outcomes for control groups for each disorder, providing an overview of the efficacy of CBT/CT. Because the literature reviews generally combine studies labeled CBT and CT under the CBT scope, the findings of these reviews were pooled and, whenever possible, pinpointed the more evident CT studies. Among the limitations of the meta-analytic approach are the assumptions of uniformity across the studies in the samples, in the content of therapy, and in therapists.

Butler et al's findings reveal that large effect sizes (grand mean = 0.90) were found for adult unipolar depression, adolescent unipolar depression, generalized anxiety disorder, panic disorder with or without agoraphobia, social phobia, post-traumatic stress disorder, and childhood depressive and anxiety disorders. The comparison-weighted grand mean effect size for these disorders when compared to no-treatment, waiting list, or placebo controls is 0.95 (SD = 0.08). CBT is associated with large improvements in symptoms for bulimia nervosa, and the associated effect sizes ($M = 1.27$, $SD = 0.11$) are significantly larger than those that have been found for pharmacotherapy. Moderate effect sizes ($M = 0.62$, $SD = 0.11$) were obtained when CT was compared to controls for marital distress, anger, childhood somatic disorders, and several chronic pain variables (i.e., pain expression behavior, activity level, social role functioning, and cognitive coping and appraisal). CT was found somewhat superior to antidepressants in the treatment of adult unipolar depression ($ES = 0.38$), and was equally effective as behavior therapy in the treatment of adult depression ($ES = 0.05$) as well as in obsessive-compulsive disorder ($ES = 0.19$). The efficacy of CT for sexual offenders is relatively low ($ES = 0.35$); however, in combination with hormonal treatments, it is the most effective treatment for reducing recidivism in this population. Finally, the review reported that CT was found to be superior to supportive/nondirective therapy in two comparisons for adolescent depression ($ES = 0.84$) and two comparisons for generalized anxiety disorder ($ES = 0.71$).

CBT has also shown promising results as adjunct to pharmacotherapy in the treatment of schizophrenia: the average uncontrolled effect size of 1.23 for CBT compares favorably with an effect size of 0.17 for schizophrenic patients receiving only routine care. CT/CBT may also have a therapeutic role in the relapse prevention of schizophrenia as reported in a randomized controlled study of CT with very high-risk groups.

Findings from other meta-analyses also indicate that CT/CBT protocols are more effective in reducing panic and anxiety symptoms than pharmacological treatments are.⁵⁸ The efficacy of specific CT for panic disorder has been supported by several studies.^{59,60} Two meta-analyses of CT and CBT have demonstrated the efficacy of these approaches for social phobia,^{61,62} and found that a "pure" CT approach was more effective than fluoxetine.⁶³ Standard CT for generalized anxiety disorder has been shown to have a clear advantage to behavior therapy at follow-up.⁶⁴ The maintenance of the effects of CT across many disorders for substantial periods beyond the cessation of treatment was supported by the meta-analyses reviewed. Significant evidence for long-term effectiveness was found for depression, generalized anxiety, panic, social phobia, OCD, sexual offending, schizophrenia, and childhood internalizing disorders. In the cases of depression and panic, there are robust and convergent meta-analytic evidence that CT produces vastly superior long-term persistence of effects, with relapse rates half those of pharmacotherapy.¹

Another meta-analysis⁶⁵ pooled seventeen studies with depressed patients and found that CT had a minimal superiority to antidepressant medication (ADM) with $ES = 0.38$. A recent study with moderately depressed subjects conducted by DeRubeis et al. found that CT and ADM had equivalent efficacy but CT performed better regarding relapse prevention. Severely depressed patients had as good outcomes with CT as with ADM in a meta-analysis of 4 studies. In addition, CT was found to be effective in the treatment of atypical depression.

For bipolar disorder, the application of CT as an adjunctive treatment in the prevention of relapse as well as its cost-effectiveness has also been reported. Lam et al.,¹⁷ in a randomized controlled trial of CBT for relapse prevention in bipolar disorder, found that patients treated with CBT experienced significantly better outcomes (e.g., fewer and shorter bipolar episodes, fewer hospital admissions, less variability in manic symptoms etc.) at 1 year follow-up. Some other empirically supported applications of CT/CBT include anorexia nervosa, body dysmorphic disorder, pathological hoarding, pathological gambling, PTSD in abused children, obsessive-compulsive disorder in children and seasonal affective disorder.²⁰

Randomized controlled trials have also provided strong empirical support for the efficacy of cognitive interventions, often as an adjunct to therapy, in the treatment of a broad range of medical conditions including heart disease, hypertension, cancer, headaches, chronic pain, chronic low back pain, chronic fatigue syndrome, rheumatoid arthritis, premenstrual syndrome, and irritable bowel syndrome.¹ Additional outcome studies have documented the beneficial role of CT for patients with various medical disorders in reducing depression and improving overall quality of life.²⁰

In recent years, research studies found neuropsychological correlates of the dysfunctional thinking and beliefs in depression. Neuroimaging studies supporting the effects of cognitive therapy in cerebral physiological and functional changes associated with CT for depression have also been demonstrated. Although the very interesting findings, the subject is beyond the scope of this review article. Of note, however, is the fact that studies of this nature can greatly expand our understanding of the mind-brain relationship, and how cognitive and behavioral techniques affect brain function.

Conclusions

There is no doubt that Beck's cognitive approach represents a theoretical shift to the understanding and treatment of emotional disorders. Over 40 years after the cognitive theory of depression was published, cognitive therapy has become the single most important and best validated psychotherapeutic approach, and with the recent movement towards evidence-based practice, CT has gained prominent attention. New applications of CT are developed for a wide range of psychological and medical conditions, although the theoretical foundations of the cognitive model remain unchanged.¹ As Beck⁷⁰ points out, "the steady progress in research and practice evidenced throughout the history of the cognitive-behavioral therapies can be taken as an indication that the future of the field will undoubtedly witness continued advancement".

(b) Identify the physical and psychological consequences of being a victim of violence. Explain the nature of counseling and rehabilitation services a psychologist can render to the victims of violence.

TOPIC: *Rehabilitation Psychology*
SUBTOPIC: *Rehabilitation of Victims of Violence*
LEVEL: *Easy*
NATURE: *Applied*

REFERENCE:

In recent years, violence has been identified as an important health problem in industrialised societies.¹ The reasons for this are complex, and may have less to do with absolute increases in the amount of violence than in the realisation that problems such as domestic violence exist and that the severity of injuries from assaults has increased with the increase in lethal weapons. Another reason is that the consequences of violence-fatal and non-fatal injury and psychological harm-are left to health professionals to treat. The medical response to the problem of violence has evolved beyond treatment to consideration of prevention. Research into violence, once the sole purview of criminologists and sociologists, is being increasingly conducted by health professionals, particularly in the accident and emergency (A&E) department.

This research has yielded some important findings that have major implications for how victims are treated in the A&E department and how violence can be prevented. Criminology tends to focus on offenders and "offences against society," while health professionals focus on individual victims. Recent research by criminologists indicates that arrest and conviction of offenders can decrease the risk of violent crime.³ The falling crime statistics in the USA in the last two years have been attributed at least in part to "community policing" and aggressive police action against gun related crimes and career criminals. Because about half the victims of violence who attend A&E departments are repeat victims,⁶ the recent finding that increased rates of conviction can decrease levels of community violence are crucially important in developing an integrated approach to prevention.^{4 5 7} In essence, this approach advocates maximising the chances of the conviction of assailants in violence which leads to the need for hospital treatment.⁷ Although there are

obvious and important ethical and legal constraints, this represents a new approach to the prevention of assaultive physical and psychological injury.

This article outlines the important issues that confront health professionals treating assault victims, and the rationale for the integrated criminal justice system/health approach to violence. We first review current knowledge about victims of assault treated in the A&E department and the distinction between victim and offender. Next, we examine the pattern of psychological and physical injuries due to assault, and what this tells us about the victim and perpetrator. Finally, we conclude with recommendations for a change in the strategy of the health care community in dealing with the problem of violence. Family support, preschool education, and situational prevention of crime and violence are important, as are the contributions of macro level approaches such as those involving public housing, labour/employment, and social services. However, this paper deals predominantly with individual level factors which can be addressed at a practical level in clinical practice.

Characteristics of the victims of violence

Until very recently, there has been almost no interest in the health careers (that is, patterns of health care utilisation) of assault victims. It has often been assumed that health careers after assault reflect the effects of one particular incident rather than the pre-existing, ongoing personality or lifestyle of the injured. Although the increasing concerns for victims of crime and the desire to avoid blaming the victim are entirely appropriate,⁸ this focus on victimisation has perhaps delayed identification of other health problems and needs in this group. A further reason for this omission is the lack of collaboration between criminologists and traumatologists. Recent research on the characteristics of offenders and victims indicates that such collaboration is both germane and necessary. The anecdotal experience of many physicians working in the A&E department is that there is often only a fuzzy distinction between victim and offender. Recent data indicate that there is a link between risk of victimisation and the risk of offending, including violent offending. One investigation has provided strong evidence that many individuals who are treated for assault related injuries are much more likely than those treated for accident related injury to have been convicted of delinquency, including violent offences."

Longitudinal studies suggest that the development of delinquency is associated with greater risk of hospital admission, the development of particular disease patterns, injury from assaults, and increased demand for medical care in childhood, compared to non-delinquent individuals. The Cambridge study in delinquent development found that one of the independently important predictors of antisocial personality at age 32 was a history by age 18 of hospital treatment.² Such a history predicted drug use, poor marital relationships, and self reported delinquency by age 32. In another longitudinal study of health and offence histories of young offenders in Saskatoon, Canada, clear differences between offenders and non-offenders in terms of previous contacts with health professionals were found, particularly those related to mental disorders.³ ⁴ Thus, A&E department treatment for an assault related injury may be an indicator of delinquency and an offending history. In addition, injuries from assault may be indicative of underlying mental health problems, indicating the need for services far beyond those delivered for the treatment of the acute injury. A comparative study of victims of assaults and unintentional injuries treated in A&E departments in Britain showed that victims of assault had higher levels of anxiety, depression, and psychiatric symptoms 12 weeks after injury than victims of unintentional injury.⁵ This may reflect ongoing psychological problems associated with either personality or lifestyle, and not due to the injury per se.

These findings were further explored by Shepherd et al in a more detailed case-control study of hospital contacts in the 10 years before assault.⁶⁻¹⁹ In contrast to the group of relatively frequent hospital attenders identified in this study, frequent attenders in primary healthcare services are more often female, children, and the elderly. Assault victims share some of the characteristics of primary care attenders, however: both groups have been shown to have higher neuroticism scores, suffered recent stress, more feelings of vulnerability, social problems, and weak social networks.²⁰ More elective surgical operations in assault patients may reflect family culture, impulsivity or dependence on physical intervention in those exposed to violence in childhood.⁷ ⁸ Impulsive people give relatively more weight to immediate rather than long term outcome. A surgical solution to minor illness/symptoms may therefore be more attractive to

these individuals (whether parents or young adults) than longer term solutions, just as violence seems the solution to other of life's problems.

Substance abuse is strongly related to risk of offending and risk of victimisation.² 22 Individuals injured in assaults have been differentiated from the uninjured on the basis of heavier binge drinking in the six hours before injury. Alcohol dependence appears to be a risk factor only in those over 25 years of age.² 24 Individuals who drink more than five drinks a day have a sevenfold increased risk of homicide.²⁵ Research on violent offenders indicates that they have higher rates of alcohol problems than the general population and are more likely than persons convicted of other offences to report drinking just before their offence.²⁶ In terms of treatment, key prerequisites are a recognition on the part of the alcohol abuser that there is a problem, and a willingness to change. In these circumstances, brief counselling can be effective in reducing alcohol related harm.

Overall, patients injured in assaults make disproportionate but specific demands on health services and should be a particular target for prevention programmes.⁷ This previously unrecognised association of disorders of young adults has been designated DATES syndrome, comprising a history of Drug Abuse, Trauma, and Elective Surgery.⁶ Characteristics of the injuries There have until recently been few investigations of overall injury patterns, the incidence of injury requiring admission to hospital, or the use of different types of weapon in relation to adult victims of violence who attend hospital. Such information is crucial in terms of properly treating the physical injuries and understanding the implications of the assault.²⁷ The face is a particular target in assault, though more so in men than in women." Assault has become the most frequent cause of fractures of the facial bones in Britain.²⁹ In the USA, facial injuries from assault are also common. In a series of mandibular fractures treated at Harlem Hospital, the vast majority were due to assaults; motor vehicle crashes accounted for only 1 %.³⁰ In a study of assault injuries in Vermont, most injuries were to the head and upper extremities and were delivered by fists.³¹ The importance of eye injuries from both blunt and penetrating trauma has been well documented.³² In an inner city population, eye injuries from assault were more common than from sports or occupation related trauma.³³

Upper limb injuries, second in frequency in most United Kingdom and US studies, may reflect a tendency on the part of victims to defend themselves by using their arms, or simply that "victims" struck their assailants and injured themselves in so doing. This is particularly likely in the case of phalangeal or metacarpal fractures. Clearly, the distinction between victim and assailant may be difficult to determine among males involved in interpersonal violence. However, true victimisation of males is more frequent than has hitherto been realised,⁹ particularly in relation to people who seek treatment at an A&E department, where physicians have a tendency to blame them for their plight.³⁴

The type of weapon affects the type and severity of injuries sustained in an assault. One particularly common blunt weapon in the USA is a baseball bat, which may cause severe injuries to the head and face.⁵ One fourth of victims assaulted with baseball bats sustain intracranial haemorrhage as well as multisystem trauma.³⁶ Gender differences in wound patterns may reflect differences in types of weapons used in assaults against men and against women. For example, in the United Kingdom study described above, proportionately more men than women sustained lacerations in assaults.²⁹ This is consistent with the cause of injury, in that more men report assault with sharp weapons or drinking glasses. In domestic violence in the United Kingdom, about 70% of face injuries in women are due to hands or fists.

An understanding of factors influencing weapon selection is important, not least because of effects on injury outcome: in the USA, firearm associated family and intimate assaults were found to be three times more likely to result in death than those involving other weapons or body force.³⁹ Linking injury and type of weapon has shown that attacks with fists or a combination of fists and feet give rise to fractures significantly more often than attacks with other blunt weapons.⁸ Surprisingly, one study of blunt head trauma from assault found that victims beaten with bats were less likely to have a poor outcome than those beaten with fists or feet.⁴⁰ These findings confirm that, for these categories of violence, expert witnesses can at best give an indication only of likely causes of injury and cannot be expected to give categorical opinions concerning precise cause.

The application of injury severity scales has shown that in those victims who can remember this detail, the number of blows broadly correlates with outcome of blunt trauma.⁸ For example, those who report less than three blows are less likely to have a fracture than those who report more than three blows. Interestingly, data concerning falls tend to confirm this: fewer of those who fall during an assault involving bodily force have multiple injuries compared with those who have not fallen, who are presumably more likely to continue to be assaulted. The exceptions are victims who are subsequently kicked, who are much more likely to require hospital admission.

In the United States, injury patterns are different from those observed in Britain and this largely reflects firearm violence, which has reached epidemic proportions.⁴ Each year in the past three decades, 30 000 Americans have lost their lives through firearm violence. Firearms are the leading cause of death in black men aged 15-34 years and are surpassed only by motor vehicles as the leading cause of all American injury related deaths.⁴³ A&E department and public health physicians have collaborated to identify the risks associated with home ownership of firearms. Gunshot wounds in recent years have increased at a rate far higher than stab wounds, are more severe, lead to higher case fatality, and are associated with higher costs for care, including public expenditure.

Repeat victimisation, regardless of the mechanism, is also a serious problem both for men and women. In relation to domestic violence, women are at highest risk of further violence immediately after initial assault. After a first incident, 33% of women suffered a second assault within five weeks in one study. These findings suggest that rapid short term prevention initiatives are most likely to prevent further domestic violence.⁴⁹ Repeat assault is also a problem among men. In one study in Detroit, 44% of men were readmitted for trauma over the subsequent five year period, with those index admissions due to assault having the highest rate of readmission. Rivara et al also found that assault victims, especially those with chronic alcohol abuse, were much more likely to be readmitted to the hospital with new injuries than were patients with other types of trauma.

Psychological consequences of assault In addition to treating the acute physical consequences of injury, health professionals must also deal with the acute psychological response accompanying trauma (table 2).⁵² Four classic sequential reactions to violence have been described⁵³: initial shock and denial, followed by fright and fear; apathy and anger; guilt and depression; and finally, resolution or repression. Reactions to victimisation have been compared to the reactions to any other loss and have been found to be similar.⁵⁴ Assaults often result in loss of self esteem, appearance, trust in primary relationships, and particularly the macho self image characterising many young males, for whom violence and its associated lifestyle had previously seemed exciting. The similarities between reactions to this loss and the normal grief reaction are obvious.⁵⁵ On the other hand, for victims in which this is but one violent episode in a continuously violent lifestyle, there may be no apparent acute psychological response.⁵⁴ Telescoping of the classic stages described by Symonds has also been found in victims with previous experience of assault.

This normal grief reaction to violence can produce psychiatric illness at any stage. An acute distress disorder can occur if the initial response is exaggerated. Post-traumatic stress disorder (PTSD), depression, substance abuse, and dependence or anxiety disorders may develop. The impact of the psychological injuries and the psychiatric illness which can develop should not be underestimated: victims' lives can be devastated by an assault.⁵² The psychological impact of rape has been a particular focus for research, and the incidence of PTSD in this group has been found to be 35-50% three months after the attack.¹⁶ ⁵⁷ The incidence of PTSD after other kinds of assault has not been precisely defined and the varying incidence (from 3% to 23%) almost certainly reflects the heterogeneous nature of victim groups studied.⁵⁶ ⁵⁸ Fairly minor injury may produce serious psychological consequences, and uninjured witnesses of traumatic incidents may suffer psychological stress.

A comparative study of assault and unintentional injury victims by Shepherd et al found that overall, half the patients were distressed one week after injury, perhaps because of temporary disfigurement, fear of permanent disfigurement, or disability and loss of self confidence.¹⁵ Social maladjustment and preoccupation with physical symptoms were more common in the assault group. The higher levels of anxiety and other emotional problems in the victims of assault at three months suggest that vulnerability in an assault is more difficult to deal with than vulnerability in an unintentional injury. Sustained

psychological disturbance may result from fear of further violence, lack of emotional support, or the victims blaming themselves. This may predate particular assaults. However, the reasons for an unintentional injury can be externalised in terms of, for example, the state of the road or someone else's carelessness.

This study showed that psychological support is important for all victims of trauma during the first week but that long term support is needed more for victims of assault than for victims of unintentional injury. Victims of assault need prompt referral to health professionals if psychiatric illness is suspected.⁵ Other risk factors for PTSD are relevant as well. Overall, the incidence of PTSD in men and women appears to be similar; only those women who witness someone being killed or seriously hurt in an assault suffer more psychological sequelae than men.⁵⁶ The more serious the stressor, the more likely serious psychological injury becomes.⁵⁹ Risk factors for PTSD are given in table 3.

Physical disability and deformity, though often of a minor nature such as lip numbness or a small facial scar, can nevertheless act as a powerful trigger of psychological symptoms and a reminder of the original trauma.⁵⁴ There remains very little evidence that brief early psychological interventions are effective.⁶⁰ It has been shown that an acute stress reaction to trauma predisposes to later serious psychological sequelae and that non-medically qualified health professionals can identify those at risk of these. Psychiatric illness can be missed and treatment withheld because the sequelae are mistakenly thought of as normal.^{6"}

There are few studies of effectiveness of various treatments but both exposure therapy and stress inoculation training can be beneficial.⁶² The recognition of those likely to experience, or who already have, severe psychological injury is one potential benefit of a more comprehensive, interagency approach, because mental health professionals are involved at an early stage.

Towards interagency procedures to prevent assault and protect victims Up to now a public health approach to the steadily increasing problem of violent crime has stopped short of collaborating with the criminal justice system to protect victims and prevent future injury by maximising the chances of assailants being convicted. Yet there is now strong evidence of a link between rates of violence and conviction of offenders and therefore that increasing rates of conviction is an effective way of preventing injury. A public health approach has focused so far on risk factors such as alcohol consumption,⁶³ firearm availability,⁴⁵ and links between deprivation and crime but has yet to include bringing violent offenders to justice.⁶ Recent criminological research has found a negative correlation between changes in the crime rate and changes in the probability of an offender getting convicted. This has been shown in the USA, England and Wales, and Sweden.⁴ This emphasises how important it is for injury prevention that violent offenders are dealt with.

Criminal justice and public health approaches already have much in common. For example, both criminal law and public health share the objectives of deterrence (health warnings), incapacitation (isolation), and rehabilitation. Criminal law and public health are both concerned with future as well as past behavior-both influence the individual and society. Furthermore, the two approaches complement each other because a public health approach focuses on the injured and can therefore be concerned with the very large number of violent incidents which, on both sides of the Atlantic, are neither reported to nor recorded by the police.

Although criminal law treats all assaults as offences against society, research has found that the initiation and maintenance of the prosecution process depends little upon personnel in the criminal justice system but nearly totally on the injured themselves. Many of these individuals are repeatedly injured by assailants in whose "web of power" they remain trapped. This applies not just to women who are injured in domestic violence, but to a wide spectrum of other people, for example youths assaulted at school and those who are dependent on drugs.⁹ Many victims do not report violence or make the complaints which trigger police action because they are incapacitated by their injuries, afraid of reprisals, habituated to violence, or have a continuing relationship with their assailants. Furthermore, because many who do not report offences are assessed by the police as unlikely to be committed to the prosecution process, investigations are often perfunctory or abandoned at an early stage, with little regard to injury severity or likelihood of future injury.⁹ It is in these areas that health professionals have opportunities to help increase the chances of offenders being convicted and increase protection for victims.

Medical policies concerning disclosure of information about crime have largely been developed only to deal with requests from the police (for example, "Police requests from information from medical practitioners in hospital unintentional injury and emergency departments: guidance for consultants." British Association for Emergency Medicine, 1991). At present, the management of adult victims of violence in family medical practice and in the A&E department is largely reactive and concerned almost exclusively with the management of physical injuries. A much wider, proactive, interagency approach is necessary, particularly so that protection and support of vulnerable people can be improved. The surprisingly frequent psychological sequelae need to be recognised and dealt with. Furthermore, the responsibility for making official complaints to the police needs to be taken from the shoulders of the seriously injured, and assailants prevented from causing further injuries. As urban communities become less cohesive there is a need for A&E departments to be more involved in violence prevention, through integration with community policing. In parts of the USA, this collaboration is much more developed than in Britain, and doctors in some states are obliged to report not only cases of suspected child abuse, but also suspected spouse abuse, firearm injuries, and intentional knife wounds. The development of formal interagency procedures would also improve links with victim support agencies, like Victim Support in Britain and victims of crime groups in the USA. This is important since so much violence is not recorded by the police, who are the principal source of referrals.

The injured often do not realise that the police act on complaints rather than mere reports of offences.⁹ This means that, where it is in the medical interests of the injured in relation to preventing future physical and psychological harm, doctors should counsel the injured to report offences and make complaints or to allow them to do so on their behalf. This will also be in the public interest in communities where violent crime and the fear of crime⁶⁸ are increasing. In some circumstances, however, it will not be in the medical interests of the injured to report offences and might even be traumatic for them to be involved in criminal proceedings. Clearly, however, many of the injured are, or feel, to blame for what has happened and will not consent to reporting. While medical staff are unlikely to turn all reluctant complainants and prosecution witnesses into staunch, public spirited citizens, consultations provide opportunities to initiate the investigation of those many crimes which are not reported for fear of reprisals. It is certainly a mistake to assume that all, or most, of the injured are somehow responsible for their own injuries.

A closer relationship between the police and the medical community must be approached cautiously. One danger is that victims of violence, who may themselves be on the edge of the law, might be dissuaded from seeking medical help. Delinquent behavior gives rise to both offending and injury and from time to time, every A&E department will be called upon to treat people who have been injured while committing a crime. An important principle of the law of confidentiality is that, save in exceptional circumstances, patients should themselves determine when and to whom information should be disclosed. Nevertheless, involvement of other agencies should be considered when treating anyone injured in an assault. These patients should all be given an opportunity to report it at an early stage so that an effective police investigation can take place. Victim assistance programmes are rarely available in A&E departments, though where they do exist utilisation tends to be by victims of domestic violence rather than victims of youth violence, who numerically are most important. The needs of the patient for confidentiality and anonymity must be balanced with the need of society to decrease violence and victimisation of its citizens.

In the context of the new government's Crime and Disorder Bill, making available to the police anonymous details of violence which has resulted in the need for hospital treatment would help deal with the very large number of bar assaults and fights which do not come to the police attention. At a local level, licensing officers could be provided with information about time and site of street and bar violence, number of assailants, weapons, and abuse of drugs. This information can be obtained from people who accompany the injured to hospital as well as from the injured themselves.⁶³ The communication of this information would not be time consuming and would bring A&E departments into community crime prevention and increase the effectiveness of any new penalty point system for bars. Importantly, only about one in nine violent offences which occur in bars and lead to A&E department treatment are recorded by the police.⁶⁸ The problem of under-reporting of crime to the police, when both victimisation surveys and A&E department reports⁷ are compared with police records, indicates that much additional information on crime in the community can be learned from examination of A&E department data.

Some important lessons have already been learned in the organisation of interagency child protection which are applicable to the care and protection of adult victims. One of the most relevant is the difficulty of assessing risk of future harm. This should not be underestimated particularly as precipitate action can compound harm. Interagency collaboration to protect children has been developed in a legal and ethical framework which could also serve as the starting point for a similar collaboration to treat and protect adults. Of course, child protection laws are necessary because children are minors, whereas best practice in relation to adults needs to take account of their rights and responsibilities. Importantly, interagency procedures can be developed to avoid compromising the relationship between health professional and patient.

Public confidence in any protection arrangement depends on a balance between avoiding unnecessary intrusion and protecting people at risk of serious harm. The treatment and protection of adult victims of crime remains fragmented. In this context, there is almost no contact between A&E departments, the police, and substance abuse agencies. Except for isolated instances, no attempts have yet been made to bring together agencies responsible for the care and protection of adults who have been assaulted. There is a need for local forums to develop, monitor, and review policy, driven by a new NHS-Home Office initiative. An agenda for reform is set out in table 4. In relation to adults injured in assaults, efforts of health professionals to avoid accusations of wrongfully disclosing confidential information can work against the interests of patients and of society and to the benefit of assailants. In the context of the many violent offenders who remain in the community and in the home, the increasing use of firearms, and rising crime rates, the duty to report crimes which result in serious injury should not be neglected. The non-reporting of violence means that patients remain at risk of further assault, that violent offenders go undeterred, and that physicians risk being seen as uncaring and blind to the needs of vulnerable people in violent environments. Health care should be organised not only to provide treatment for individuals injured in assaults, but to reduce the risks of further injury in the communities and families from which they come. Importantly from a public health perspective, it is increasing the chances of violent offenders being brought to justice that will deter potential offenders and help to reduce rates of intentional injury. Where the patient or someone else continues to be at risk of serious harm, reporting offences should be a part of responsible care.

(c) Define the notion of environmental pollution. How would you explain the impact of scientific and technological innovation on environmental degradation from a psychological perspective?

TOPIC: *Application of psychology to environment and related fields*
SUBTOPIC: *Environmental psychology-effects of pollution*
LEVEL: *Easy*
NATURE: *Applied*

REFERENCE:

Pollution is the introduction of contaminants into the natural environment that cause adverse change. Pollution can take the form of chemical substances or energy, such as noise, heat or light. Pollutants, the components of pollution, can be either foreign substances/energies or naturally occurring contaminants. Pollution is often classed as point source or nonpoint source pollution.

Forms of pollution

The major forms of pollution are listed below along with the particular contaminant relevant to each of them:

- Air pollution:- the release of chemicals and particulates into the atmosphere. Common gaseous pollutants include carbon monoxide, sulfur dioxide, chlorofluorocarbons (CFCs) and nitrogen oxides produced by industry and motor vehicles. Photochemical ozone and smog are created as nitrogen oxides and hydrocarbons react to sunlight. Particulate matter, or fine dust is characterized by their micrometre size PM10 to PM2.5.
- Light pollution:- includes light trespass, over-illumination and astronomical interference.

- Littering:- the criminal throwing of inappropriate man-made objects, unremoved, onto public and private properties.
- Noise pollution:- which encompasses roadway noise, aircraft noise, industrial noise as well as high-intensity sonar.
- Soil contamination occurs when chemicals are released by spill or underground leakage. Among the most significant soil contaminants are hydrocarbons, heavy metals, MTBE, herbicides, pesticides and chlorinated hydrocarbons.
- Radioactive contamination, resulting from 20th century activities in atomic physics, such as nuclear power generation and nuclear weapons research, manufacture and deployment. (See alpha emitters and actinides in the environment.)
- Thermal pollution, is a temperature change in natural water bodies caused by human influence, such as use of water as coolant in a power plant.
- Visual pollution, which can refer to the presence of overhead power lines, motorway billboards, scarred landforms (as from strip mining), open storage of trash, municipal solid waste or space debris.
- Water pollution, by the discharge of wastewater from commercial and industrial waste (intentionally or through spills) into surface waters; discharges of untreated domestic sewage, and chemical contaminants, such as chlorine, from treated sewage; release of waste and contaminants into surface runoff flowing to surface waters (including urban runoff and agricultural runoff, which may contain chemical fertilizers and pesticides); waste disposal and leaching into groundwater; eutrophication and littering.

Psychosocial and mental health impacts of climate change

The psychosocial and mental health implications of climate change have gained attention in the context of disaster recovery from extreme weather events (Few, 2007). Fritze and colleagues (2008) note that direct impacts, such as extreme weather events, are likely to have immediate effects on the prevalence and severity of mental health issues in affected communities as well as significant implications for mental health services; vulnerable communities will experience ongoing disruptions to the social, economic and environmental determinants that promote mental health in general; and finally climate change as a global environmental threat may create emotional distress and anxiety about the future.

Emotional reactions are critical components of information processing and also have a direct relation to physical and psychological health (Dillard & Pfau, 2002 in Moser, 2007; Slovic, Finucane, Peters, et al., 2004; Groopman, 2004). It is hypothesized that certain strong emotional responses such as fear, despair, or a sense of being overwhelmed or powerless can inhibit thought and action (Macy & Brown, 1998; Moser, 2007; Nicholson, 2002). As Moser and Dilling (2004) illustrate, well-meaning attempts to create urgency about climate change by appealing to fear of disasters or health risks frequently lead to the exact opposite of the desired response: denial, paralysis, apathy, or actions that can create greater risks than the one being mitigated. For an example of a general review of research on emotional responses to informational messages about climate change, see Moser (2007).

Mental health issues associated with natural and technological disasters. Personal experience of extreme weather events can lead to psychological and mental health outcomes associated with loss, disruption and displacement, as well as cumulative mental health impacts from repeated exposure to natural disasters (Few, 2007; Peek & Mileti, 2002). These outcomes include acute and posttraumatic stress disorder; other stress related problems such as complicated grief, depression, anxiety disorders, somatoform disorders, and drug and alcohol abuse; higher rates of suicide attempts and completions; elevated risk of child abuse; and increased vulnerability of those with pre-existing severe mental health issues (For a review see Fritze, et al, 2008).

Stress and emotional outcomes associated with natural and technological disasters. In a review of mental health treatment guidelines for victims of natural and human caused disasters, Stein and Meyers (1999) note that psychological responses to disasters involve distinct phases characterized by symptoms changing over time. This includes feelings of disbelief, shock, denial, or outrage immediately following the event, as

well as altruistic feelings associated with saving lives and property. Emotional support and optimism for the future has the potential to give way to disillusionment, intrusive thoughts and images, anger, and disappointment as long-term implications and emotional impacts of the event become apparent. This disillusionment phase may last months to years and is most likely associated with autonomic (stress) arousal and physical and psychological complaints (e.g., headaches, fatigue, gastrointestinal symptoms, posttraumatic stress disorder, and cardiac symptoms).

Stress related impacts associated with actual or perceived environmental threats can be long lasting. Studies at the site of the Three Mile Island nuclear accident taken a year and a half after the original accident found that individuals living near the site demonstrated higher levels of norepinephrine and some impairment in cognitive ability (as measured by effectiveness at proofreading) compared to individuals living near another nuclear plant, a coal fired plant, or an area with no energy plant at all (Baum, Gatchel, & Schaeffer, 1983). The indirect effects on stress due to disruption of the community and social support networks may last for years or decades (Stein & Meyers, 1999).

Lessons from Hurricane Katrina. The experience of mental health professionals intervening in the aftermath of Hurricane Katrina confirmed evidence that providing assistance with basic needs and psychological first aid are the optimal intervention in the immediate aftermath of a disaster. In general, these interventions focus on individual needs and functional recovery rather than psychopathology. Interventions include contact and engagement, stabilization, information gathering, practical assistance, information on coping, and connection with collaborative services (Gheyntanchi et al., 2007; Haskett et al., 2008).

The disproportionate impact of the Hurricane Katrina's effects on the poor, largely Black communities of New Orleans's Ninth Ward confirmed that race and socioeconomic factors should be considered in psychological response and prevention efforts. As a group, these residents lacked access to quality education, housing, and employment opportunities available in surrounding communities. These disparities were associated with a lack of essential resources, shelter, transportation, and information about evacuation plans during the storm (Gheyntanchi et al., 2007). A survey of Hurricane Katrina's impacts on physical and mental health revealed that elderly people were substantially overrepresented among the dead and that the preexisting circumstances of the evacuees made them particularly vulnerable to a high level of psychological distress that was exacerbated by severe disaster exposure and lack of economic and social resources (Bourque, Siegel, Kano & Wood, 2006).

Differentiating between normal and pathological worry regarding climate change. There are challenges measuring anxiety related to climate change and differentiating between normal and pathological worry regarding climate change impacts. Traditionally, in areas such as environmental medicine (Rabinowitz & Poljak, 2003), "environmental anxiety" (p. 225) has been characterized as obsessive and potentially disabling worry about risks that are actually not significant (e.g., compared to well-recognized hazards such as motor vehicle accidents and smoking). In this case, clinicians have been instructed to communicate the relative importance of such risks in the context of other health priorities. Given the unfolding evidence about potential human health impacts of climate change and the diffuse nature of those impacts, especially on emotions and mental health, what constitutes an appropriate level of worry remains in question.

In clinical terms, anxiety is a future-oriented mood state associated with a sense that events are proceeding in an unpredictable, uncontrollable fashion. It is accompanied both by physiological arousal and by a number of cognitive responses including hypervigilance for threat and danger; and, at intense levels, fear and panic (Barlow, 2002). The principal function of worry is to prepare to cope with future threats. Thus, worry is a normal, adaptive process unless it is so driven by anxiety that becomes intense and uncontrollable. It is in this sense that worry can become chronic and maladaptive (Barlow, 2002). Media accounts of "eco-anxiety" about climate change describe symptoms such as panic attacks, loss of appetite, irritability, weakness and sleeplessness (Nobel, 2007). Though anecdotal, these symptoms are remarkably similar to those reported in controlled studies of symptoms reported by those living in proximity to hazardous waste sites and are likely to have a genesis in autonomic stress responses and behavioral sensitization. For instance, research on responses to hazardous waste sites and perceived environmental toxins indicates that symptom complaints are likely to be subjective and mediated by autonomic stress

responses, behavioral sensitization and confounding factors such as environmental worry (Neutra et al., 1991). Extrapolating from current diagnostic guidelines (American Psychiatric Association, 2000), differentiating between normal and pathological worry regarding climate change would include examining the content and pervasiveness of climate-related worries, interference with functioning as a result of worry, and the degree of perceived control over the worry process.

Uncertainty and despair. Fritze et al., (2008) discuss how, “at the deepest level, the debate about the consequences of climate change gives rise to profound questions about the long-term sustainability of human life and the Earth’s environment” (p. 9). These questions may, in turn, promote a sense of hope or despair for future generations and impact a sense of individual and collective meaning and purpose for individuals in the present day. In this vein, Kidner (2007) has described the loss of security in the future engendered by uncertainty about the health and continuity of the larger, natural world. Furthermore, as Kidner notes, the impact of these emotions tends to under-appreciated due to the lack of recognition of subjective feelings of environmental loss in traditional scientific or economic frameworks. Macy and Brown (1998) have proposed a set of common barriers that prevent individuals from expressing emotions and concerns related to environmental degradation that may be useful in a climate change context. These barriers include fears of being seen as morbid, unpatriotic, or lacking in information.

Research on climate change-related emotions. In a qualitative study using an existential-phenomenological framework, Langford (2002) identified responses to the risks posed by climate change including: 1) active denial associated with a strong reliance on rationality over emotion and lack of tolerance for scientific uncertainty; 2) disinterest associated with external locus of control and fatalism; and 3) engagement associated with a preference for emotion and intuition to justify opinions and actions, a sense of empowerment and personal responsibility, and belief in communal efficacy. Maiteny (2002), along similar lines, identified three responses to chronic anxiety about ecological and social problems: 1) An unconscious reaction of denial in which individuals stave off anxiety by seeking gratification through continued and perhaps increased material acquisition and consumption; 2) a “green consumer” response (p. 300) that reflects greater concern for the environment (e.g. by shopping in a way that is more thoughtful about potential environmental impacts of product choices), but without major changes in lifestyle; and 3) heightened conscience and feelings of connectedness with wider ecological and social processes, leading individuals to take responsibility for lifestyle changes and stimulate change and awareness in others.

Numbness or apathy. Environmental problems have long been associated with numbness or apathy (e.g., Macy & Brown, 1998; Gifford, 1976; Searles, 1972). Moser (2007) differentiates numbness as a secondary reaction following realization of the magnitude of climate change threats and perceived inability to affect their outcomes. Apathy is seen as a primary emotional response that prevents individuals from learning about the threat and forming a more informed reaction. The apathy is likely to stem from a “drumbeat of news about various overwhelming environmental and societal problems” (p. 68) as well as the demands of daily life. Speaking from a psychoanalytic perspective, Lertzman (2008) has countered that the public’s apparent apathy regarding climate change is actually paralysis at the size of the problem. Lertzman reframes the issue in terms of psychological defense mechanisms such as denial and splitting (i.e., retaining intellectual knowledge of the reality, but divesting it of emotional meaning), both strategies to manage and cope with such experiences by defending against them. Apparent apathy regarding environmental issues may also be a function of adaptation to existing conditions. In a process Kahn (1999) has called “environmental generational amnesia,” people tend to make their experience a baseline for environmental health, and thus fail to recognize, over years and generations, the extent to which the environment has degraded.

Guilt regarding environmental issues. Guilt is the emotional response to a self-perceived shortfall with respect to one’s own standards of conduct, and people who feel guilty are motivated to make amends or feel a moral responsibility to behave differently (Moser, 2007). The issue of “eco-guilt” has received coverage in the popular media (e.g., Foderaro, 2008). However, attempts to shame individuals into adopting pro-environmental behaviors can be ineffective in changing behaviors particularly when they lead to rationalizations of behavior and rejection, resentment, and annoyance at such perceived manipulations (O’ Keefe, 2002, in Moser, 2007). Research in other areas as well as a recent research on reactions to “guilt appeals” indicate that it is important to make distinctions between messages that lead to

feelings of guilt versus shame with the former resulting from reflections on one's behavior and the latter resulting from reflections on personal characteristics (Tangney, 2003; Lickel, Schmader, Curtis, Scarnier, & Ames, 2005), distinctions between people feeling guilty for their own behavior versus the behavior for their group's behavior (Mallett, 2009; Mallett & Swim, 2004), and distinctions among the recipients of messages with some being more receptive and others more defensive (Brook & Graham, 2009; Mallett, 2009; Mallett, Huntsinger, Sinclair, & Swim, 2008). Moreover, it is possible that people may not like messages that make them feel guilty but the messages may nonetheless be effective (Czopp, Monteith, & Mark, 2006).

Social and community impacts of climate change

Heat and violence. Climate change is most concretely represented in the public mind as "global warming." The warming that is predicted is likely to have some direct impacts on human behavior. Based on extensive research, both experimental and correlational, Anderson (2001) has concluded that there is a causal relationship between heat and violence. He argues that any increase in average global temperature is likely to be accompanied by an increase in violent aggression. Indeed, he suggests that current models predict a rise of about 24,000 assaults or murders in the U.S. every year for every increase of 2 degrees Fahrenheit in the average temperature.

Intergroup relations. Global climate change is also likely to have an effect on intergroup relations. Diminishing resources set the stage for intergroup conflict, either when two groups directly compete for the remaining natural resources, or when ecological degradation forces one group to migrate out of its own territory and become an immigrant into another group's territory (Reuveny, 2008), thus competing for rights and ownership of the space. The Intergovernmental Panel on Climate Change has estimated that by 2030, as much as 42% of the world population will live in countries with insufficient freshwater for their agricultural, industrial and domestic use, setting the stage for conflict over how to allocate water supplies. The Pentagon and other institutional members of the intelligence community have begun to attend to the destabilizing effects of climate change on domestic stability as well as international tensions (e.g., Yeoman, 2009).

Displacement and relocation. Loss of connection to place and sense of belonging associated with displacement from one's home place can also undermine mental health (Fullilove, 1996). Communities are already being forced to relocate because of current or anticipated climate changes (Agyeman, Devine-Wright, & Prange, 2009). Such forced relocations can involve a severing of emotional ties to place, as well as disrupting existing social networks. These disruptions of geographic and social connections may lead to grief, anxiety, and a sense of loss, particularly among those with a strong place identity.

Reactions to socioeconomic disparities. The growing recognition that some (primarily Western) countries have contributed more than their "share" to a global crisis that will be most strongly felt by other, less-developed countries will also exacerbate intergroup tensions. One consequence of climate change may be an increase in the disparity between the "haves" and the "have-nots" both within and between nations. Because the have-nots are more likely to be ethnic minorities (Bullard & Johnson, 2000), this disparity may increase ethnic tensions and intergroup hostility. Intergroup relations suffered in the aftermath of Hurricane Katrina, for example, when African Americans were more likely than Whites to interpret the government's response as indicating racism (Adams, O'Brien, & Nelson, 2006); the loss of key resources due to the storm highlighted group differences in financial and geographic security. Issues of justice become more relevant when a resource is limited, and a threat to one's group identity—such as may be represented by a loss of homeland, or a reduction in the environmental resources needed for survival—tends to increase derogation of the outgroup (Hogg, 2003).

Social justice implications. As Moser and Dilling (2007b) note, the ethical implications of sharing one atmospheric commons are that some regions are disproportionately affected by climate change, and societal vulnerability to those negative impacts is also highly uneven due to differential levels of exposure and sensitivity to the risks and differential ability to cope and adapt. Nations that benefit most from the status quo and perceive themselves to be less severely impacted have less incentive to push for action on climate change (Agyeman et al., 2003; Kasperson & Dow, 1991), while other, more vulnerable nations

recognize that their very existence is threatened by the possibility, e.g., of rising sea levels. The result is that response to climate change may be seen as not fairly allocated on the basis of responsibility for the change.

Moderators of climate change impacts

Proximity. Psychosocial moderators are those variables that affect the intensity or strength of climate change impacts. Personal experience with noticeable and serious consequences of global warming is still rare in many regions of the world. Proximity can be a moderator of climate change impacts when one directly experiences an extreme weather event (Few, 2007). Extrapolating from an earlier research regarding perceived environmental hazards (e.g., research on individuals living in sight of a hazardous waste facility; see Neutra et al., 1991), proximity to visual or sensory cues of climate change impacts may moderate physiological and psychosocial impacts. However, it is also likely that the time-delayed, abstract, and often statistical nature of the risks of global warming will not evoke strong visceral reactions (i.e., worry) and thus diminish alarm and urgency about risk management (Weber, 2006). The role of media narratives as mediators of the psychosocial impacts of climate change is discussed below and in the Adaptation section of this report.

Vulnerabilities and resilience. A research framework on social vulnerability to global environmental changes can begin with lessons learned from social vulnerability research in areas of famine, environmental hazards and public health (Brklacich et al., 2007). Social vulnerability can be defined as a lack of capacity within individuals and communities to respond to (e.g. cope with, recover from, and adapt to) external stresses placed on their livelihoods and well being. Vulnerability is inherent in all human systems and it is exposed rather than caused by external stressors, with repeated impacts increasing future vulnerabilities. Social vulnerability is differentiated within and between places and groups and is linked with broader issues of social, economic, and political inequality.

While frameworks guiding climate change policy frequently articulate a dichotomy between mitigation or adaptation (as is discussed in other sections of this report), Brklacich et al. (2007) assert that a social vulnerability perspective encourages an understanding of the relationship between exposure to stresses and capacity to respond as well as recognition of the common drivers of both. They argue that the same processes that position some people and groups in harm's way (i.e. living in marginal, low-lying areas and having precarious, resource based livelihoods) also limit their option for avoiding adverse outcomes. When determining those most vulnerable to psychosocial impacts of climate change, previous research on disaster intervention has identified groups likely to be at greater psychosocial risk including children, the elderly, rural and urban poor, racial and ethnic minorities, those with a previous history of emotional disability, and, in general, those with a marginalized pre-disaster existence (Gheytanchi et al., 2007; Bourque et al., 2006; Peek & Mileti, 2002).

Social norms. Social responses to climate change can also be considered a type of moderator. A sense of impact or alarm is likely to be moderated by social referents and local social norms. For example, some groups perceive that society will be able to adapt to any adverse changes related to climate change once they arrive (Moser, 2007). Knowing that people believe this could alter other people's responses to climate change.

Psychosocial mediators of climate change impacts

Mediators such as cognitive appraisals or media representations explain why climate change can have psychosocial impacts on individuals and communities that have not experienced direct physical impacts; that is, the effects of climate change occur because of its impact on the mediating variables.

Relative risk appraisals. Relative risk constitutes an individual's assessment of the degree of threat and harm they perceive from climate change and the assessment of their individual and social resources they have to deal with the perceived threat or harm. As in the development of the terrorism-related fears following the September 11 attacks (Marshall et al., 2007), perception of personal risk is likely to mediate how individuals experience impacts of climate change. Sense of risk or empowerment regarding the impacts of climate change may also be mediated by attributions of responsibility (Leiserowitz, 2007).

Mental models. Individuals' pre-existing frames of reference or mental models will also affect their understanding, perception, and reaction to information about climate change (Kempton, 1991). For example, climate change impacts framed as weather disasters in media images may trigger a "weather" frame. Since weather is generally seen beyond as humans' control, this in turn may lead to a sense of helplessness or resignation about climate change (Bostrum & Lashof, 2007). Because climate change is not typically experienced directly, its effect is mediated through this interpretive model.

Media Representations. Media representations are a powerful and arguably primary mediator of climate change impacts for most individuals. Reser (in press) stresses that what people are experiencing and responding to in the context of climate change are principally indirect and virtual media representations of climate change—not changes in global weather patterns or ongoing environmental impacts, per se. Further, Stokols, Misra, Runnerstrom & Hipp (2009) describe how continual exposure to information engendered by modern technologies (e.g., vivid and instantaneous internet images) raises the salience of global crises and can engender anxiety or passivity in the face of seemingly overwhelming threats.

Past responses to media portrayals of crises illustrate the way in which public alarm and media attention can play a role in psychosocial impacts. For example, investigations into the aerial spraying of malathion during the Mediterranean Fruit fly (Medfly) crisis in California in the 1980's found that reports of anxiety and physical symptoms were higher before the spraying began and no chemical agent was present and decreased significantly after the spraying began and attention by the public and media subsided—suggesting that the media attention rather than the spraying was the primary cause of the health effects (Jackson, 1981, in Neutra et al., 1991). More recently, investigators have documented strong positive associations between anxiety and PTSD symptoms related to the 9/11 bombings and exposure to television coverage of the disaster in persons across the US not directly exposed to the attacks (Marshall et al., 2007). Media representations are likely to remain a useful variable for understanding the psychosocial impacts of climate change as various framings and the messages regarding the issue are presented (Dunwoody, 2007).

Anxiety. Although anxiety is a possible outcome of climate change, as noted above, it is also can be a mediator to the extent that it leads to other outcomes. For example, individuals living in sight of a hazardous waste site or sensitive to odors perceived to emanate from the sites report a variety of physical symptom complaints associated with perceived environmental pollution (e.g., nervousness, headache, sleeplessness, fatigue, dizziness, nausea) even when the presence of health problems (e.g., toxic exposure, higher rates of cancer or birth defects) are not borne out by careful study (Neutra et al, 1991). This finding suggests that the environmental cues stimulated anxiety which in turn led to physical symptoms.

4. Answer the following in about 250 words:

20x3=60

(a) Define 'learned helplessness'. How can this concept be used to explain depressive disorders?

TOPIC: *Psychological well being and Mental Disorders*
SUBTOPIC: *Causal Factors in Mental Disorders (Mood Disorders)*
LEVEL: *Easy*
NATURE: *Fundamental - Applied*

REFERENCE:

Learned Helplessness:

Learned helplessness is the condition of a human or animal that has learned to behave helplessly, failing to respond even though there are opportunities for it to help itself by avoiding unpleasant circumstances or by gaining positive rewards. Learned helplessness theory is the view that clinical depression and related mental illnesses may result from a perceived absence of control over the outcome of a situation. Organisms which have been ineffective and less sensitive in determining the consequences of their behavior are defined as having acquired learned helplessness.

Foundation of research and theory

Seligman and Maier

The American psychologist Martin Seligman's foundational experiments and theory of learned helplessness began at the University of Pennsylvania in 1967, as an extension of his interest in depression. Quite by accident, Seligman and colleagues discovered that the conditioning of dogs led to outcomes that opposed the predictions of B.F. Skinner's behaviorism, then a leading psychological theory.

Experiment

Summary

In the learned helplessness experiment an animal is repeatedly hurt by an adverse stimulus which it cannot escape.

Eventually the animal will stop trying to avoid the pain and behave as if it is utterly helpless to change the situation.

Finally, when opportunities to escape are presented, this learned helplessness prevents any action. The only coping mechanism the animal uses is to be stoical and put up with the discomfort, not expending energy getting worked up about the adverse stimulus.

Detail

In Part 1 of Seligman and Steve Maier's experiment, three groups of dogs were placed in harnesses. Group 1 dogs were simply put in the harnesses for a period of time and later released. Groups 2 and 3 consisted of "yoked pairs." A dog in Group 2 would be intentionally subjected to pain by being given electric shocks, which the dog could end by pressing a lever. A Group 3 dog was wired in series with a Group 2 dog, receiving shocks of identical intensity and duration, but his lever didn't stop the electric shocks. To a dog in Group 3, it seemed that the shock ended at random, because it was his paired dog in Group 2 that was causing it to stop. For Group 3 dogs, the shock was apparently "inescapable." Group 1 and Group 2 dogs quickly recovered from the experience, but Group 3 dogs learned to be helpless, and exhibited symptoms similar to chronic clinical depression.

In Part 2 of the Seligman and Maier experiment, these three groups of dogs were tested in a shuttle-box apparatus, in which the dogs could escape electric shocks by jumping over a low partition. For the most part, the Group 3 dogs, who had previously learned that nothing they did had any effect on the shocks, simply lay down passively and whined. Even though they could have easily escaped the shocks, the dogs didn't try.

In a second experiment later that year, Overmier and Seligman ruled out the possibility that the Group 3 dogs learned some behavior in Part 1 of the experiment, while they were struggling in the harnesses against the "inescapable shocks," that somehow interfered with what would have been their normal, successful behavior of escaping from the shocks in Part 2. The Group 3 dogs were immobilized with a paralyzing drug (Curare), and underwent a procedure similar to that in Part 1 of the Seligman and Maier experiment. A similar Part 2 in the shuttle-box was also undertaken in this experiment, and the Group 3 dogs exhibited the same "helpless" response.

However, not all of the dogs in Seligman's experiments became helpless. Of the roughly 150 dogs in experiments in the latter half of the 1960s, about one-third did not become helpless, but instead managed to find a way out of the unpleasant situation despite their past experience with it. The corresponding characteristic in humans has been found to correlate highly with optimism: an explanatory style that views the situation as other than personal, pervasive, or permanent. This distinction between people who adapt

and those who break down under long-term psychological pressure was also studied in the 1950s in the context of brainwashing.

Later experiments

Other experiments were performed with different animals with similar results. In all cases, the strongest predictor of a depressive response was lack of control over the aversive stimulus. One such later experiment, presented by Watson & Ramey (1969), consisted of two groups of human babies. One group was placed into a crib with a sensory pillow, designed so that the movement of the baby's head could control the rotation of a mobile. The other group had no control over the movement of the mobile and could only enjoy looking at it. Later, both groups of babies were tested in cribs that allowed the babies to control the mobile. Although all the babies now had the power to control the mobile, only the group that had already learned about the sensory pillow attempted to use it.

A similar experiment was done with people who performed mental tasks in the presence of distracting noise. People who could use a switch to turn off the noise had improved performance, even though they rarely bothered to do so. Simply being aware of this option was enough to substantially counteract its distracting effect. In 2011, an animal study found that animals with control over stress exhibited changes in the excitability of specific neurons within the prefrontal cortex, and modeled this phenomenon in a conductance-based neural simulation. Animals that lacked control failed to exhibit an increase in excitability and showed signs consistent with learned helplessness and social anxiety.

Attributional reformulation

Later research discovered that the original theory of learned helplessness failed to account for people's varying reactions to situations that can cause learned helplessness. Learned helplessness sometimes remains specific to one situation, but at other times generalizes across situations.

An individual's attributional style or explanatory style is the key to understanding why people respond differently to adverse events. Although a group of people may experience the same or similar negative events, how each person privately interprets or explains the event will affect the likelihood of acquiring learned helplessness and subsequent depression.

People with pessimistic explanatory style—which sees negative events as permanent ("it will never change"), personal ("it's my fault"), and pervasive ("I can't do anything correctly")—are most likely to suffer from learned helplessness and depression. Cognitive behavioral therapy, heavily endorsed by Seligman, can often help people to learn more realistic explanatory styles, and can help ease depression.

Bernard Weiner's attribution theory (1979, 1985, 1986) concerns the way that people attribute a cause or explanation to an unpleasant event. Attribution theory includes the dimensions of globality/specificity, stability/instability, and internality/externality. A global attribution occurs when the individual believes that the cause of negative events is consistent across different contexts. A specific attribution occurs when the individual believes that the cause of a negative event is unique to a particular situation. A stable attribution occurs when the individual believes the cause to be consistent across time. Unstable attribution occurs when the individual thinks that the cause is specific to one point in time. An external attribution assigns causality to situational or external factors, while an internal attribution assigns causality to factors within the person.

Differences between humans and other animals

There are several aspects of human helplessness that have no counterpart among animals. One of the most intriguing aspects is "vicarious learning (or modelling)": that people can learn to be helpless through observing another person encountering uncontrollable events.

Apart from the shared depression symptoms between human and other animals such as passivity, introjected hostility, weight loss, appetite loss, social and sexual deficits, some of the diagnostic symptoms

of learned helplessness—including depressed mood, feelings of worthlessness, and suicidal ideation—can be found and observed in human beings but not necessarily in other animals. In non-human animal models, control over stress conveys resilience to future uncontrolled stressors and induces changes in the function of specific neurons within the prefrontal cortex.

Learned Helplessness and Depressive Disorders

More than 2 decades ago, researchers in the field of learned helplessness began to find in animals that encountering uncontrollable bad events resulted in inadequate rejection of implanted tumors and inadequate immune function.^{2,3} Findings in these well-controlled studies were in line with the more anecdotal evidence on helplessness and mortality that had steadily accumulated since the early writings of Curt Richter⁴ on sudden death and of George Engel on helplessness-hopelessness and physical illness.

Researchers of learned helplessness turned to the study of humans in the 1970s and pursued work on a trait that turned out to be a major amplifier of helplessness: pessimism and optimism. It was found that pessimistic individuals (people who interpret bad events as permanent and pervasive) became helpless and depressed more easily than optimists (who see bad events as temporary, controllable, and local).

A questionnaire, the Attributional Style Questionnaire, was validated for optimism and pessimism and was widely used to predict depression.⁶ A content-analytic method of measuring optimism and pessimism was then derived to index this trait in people who do not take questionnaires, such as Presidents of the United States, sports heroes, and the dead. Pessimism measured in this way predicted poor health in late middle age as well as mortality. The content-analytic measure of optimism-pessimism has 2 disadvantages, however: it is labor-intensive, and it requires authentic, extensive written or spoken material from an individual's life. Since there was a clear prediction from the work on learned helplessness and on pessimism that pessimistic individuals are at risk for poor health and premature death, a better method allowing wider sampling for measuring pessimism was needed. In stepped Robert Colligan. Large numbers of people have taken the MMPI over the last 50 years, he reasoned. Many of these people are now dead, but their age and health were well documented at the time they took the MMPI. Therefore, by content analyzing every item on the MMPI for pessimism and optimism, a subscale could be created that could then be used to test for the long-term effects of this trait on physical illness and mortality.⁹ And this is the second important aspect of the study by Maruta et al in this issue: they tested and confirmed the predictive validity of this derived, but easily used, measure of optimism and pessimism. They have opened the field to use this scale to predict much in the way of the specifics of physical illness and its sequel from optimism and pessimism and the medical records of the many individuals who have taken the MMPI earlier in their lives.

The "learned helplessness" theory of depression proposes that individuals are susceptible to depression because they have pessimistic attribution to neutral events. For example, during a basketball game a player might miss a shot. If they have a pessimistic attributional style, they may believe they missed the shot because they are hopeless. They have attributed this event to a cause that is internal (self-referent), stable (a personality characteristic), and global (likely to affect other situations). In contrast, a player who explains the missed goal as a result of being distracted attributes the failure to a cause that is external, unstable, and specific. Research indicates that a pessimistic attributional style interacts with subsequent negative life events to predict ensuing increases in depressed mood. In general, these findings are applicable to both males and females.

Seligman (1975) was studying escape learning and found that dogs, forced to stay in a box where they were repeatedly shocked, soon gave up and stopped trying to escape. Not surprising. Moreover, 65% of the dogs didn't try to escape the next day when the box was modified so they could easily escape. They just laid down and whined. They had learned helplessness. Seligman said human depression with its passivity and withdrawal might be due to "learned helplessness." This single study of dogs stirred enormous interest among experimental psychologists who had heretofore ignored the ancient idea of hopelessness. Within a few years the "helplessness" theory was being questioned because many people in helpless circumstances do not become depressed and because this theory does not explain the guilt, shame, and self-blame that often accompanies depression. How can you feel helpless, i.e. without any ability to control what happens, and, at the same time, feel at fault and guilty about what happened (Carson & Adams, 1981)?

A few years later, attribution and/or cognitive theory (Abramson, Seligman, & Teasdale, 1978) came to the rescue with the *reformulated helplessness theory*. This suggests that the depressed person thinks the cause is internal ("it's my fault"), stable ("things can't change"), and global ("this affects everything"). This is a very different theory (no experimentalist had ever theorized that the dogs blamed themselves). But soon there were more problems, e.g. research showed that most depressed people, like dogs, see the causes of their depression as being outside forces, not themselves (Costello, 1982).

Moreover, both the hopeless self-blamer and the hopeful self-helper see the causes of their behavior and feelings as being internal. So, internal causes may lead to optimism as well as pessimism. And, finally again, how do we know that the feelings of helplessness or hopelessness precede and cause depression rather than just being a natural part of feeling depressed?

To deal with some of these difficulties, Abramson, Metalsky, & Alloy (1989) modified the helplessness theory into a still broader hopelessness theory. The more complex *hopelessness theory* contends that prior to becoming hopeless the person has (a) a negative cognitive or attribution style (see next two theories) and (b) some unfortunate, stressful experience. Because both of these factors are involved, some people with depression-prone thinking don't become depressed (by avoiding traumatic experiences) and some people go through awful experiences without getting depressed (by avoiding negative thinking). *The hopeless person expects bad things will happen* in important areas of his/her life (pessimism) and/or that hoped for good things will not happen, and he/she doesn't expect anything to change that miserable situation.

Considerable research has supported parts of the hopelessness theory. For example, Metalsky & Joiner (1992) found that *three cognitive views*: (a) attributing bad events to unavoidable and far-reaching causes, (b) drawing negative conclusions about yourself from a negative event ("it means I'm worthless"), and (c) assuming one bad event will lead to others in the future, *when combined with high stress*, are associated with depression. In another study, they found that *low self-esteem* was another crucial ingredient in order to produce depression (Metalsky, Joiner, Hardin & Abramson, 1993). Please note: depression might be avoided by reducing your negative thinking habits, avoiding high stress, or by building your self-esteem. Of course, your needs and personality will determine how stressful a particular event will be for you. Segal (1992) found that recovered *dependent* depressives were plunged back into depression by a loss or conflict in interpersonal relationships. But, *self-critical* depressives relapsed when they failed at school or work. Only our most dreaded problems seem to set off depression.

This new hopelessness theory explains depression to a considerable extent on the basis of pessimistic *expectations of the future*. Traditional thinking and other theories (#1, #5, #8, #9, #10 & #13) say depression is caused by obsessing about losses in the *past*. Selective perception of the past is also thought to be important, e.g. self-critical people don't see their successes. Both backward-looking and forward-looking theories are probably true, sometimes. Some people regret the past ("Of all sad words of tongue and pen, the saddest are these, 'it might have been'") and others dread the future (because they will mess it up or have no control), and some do both. Maybe the negativism of some depressed people extends to everything--the past, the future, me, you, the world..

The therapy for helplessness and hopelessness includes (a) making more good things happen and/or increasing positive expectations, (b) increasing self-control (c) increasing tolerance of whatever happens, and (d) increasing one's optimism. Ideally, the depressed person will develop internal, stable, and global explanations (attributions) for *good* events, e.g. "I'm responsible for what happens, and I can make good things happen again in lots of areas." Likewise, the shift should be to believing that external, unstable, and specific factors account for unpleasant life-events, e.g. one of Seligman's better adjusted dogs in the shock box might say, "this man is hurting me, he will surely stop soon, people only shock me in this box... and I will vigorously avoid getting into this box again. For now, I'll just tough it out."

(b) Explain the models of sensitivity training. Relate them to organizational development.

TOPIC: *Work Psychology and Organizational Behavior*

SUBTOPIC: *Sensitivity Training*
LEVEL: *Easy*
NATURE: *Applied*

REFERENCE:

sensitivity training, psychological technique in which intensive group discussion and interaction are used to increase individual awareness of self and others; it is practiced in a variety of forms under such names as T-group, encounter group, human relations, and group-dynamics training. The group is usually small and unstructured and chooses its own goals. A trained leader is generally present to help maintain a psychologically safe atmosphere in which participants feel free to express themselves and experiment with new ways of dealing with others. The leader remains as much as possible outside the discussion. Issues are raised by the group members, and their interactions evoke a wide variety of feelings. The leader encourages participants to examine verbally their own and others' reactions. It is believed that as mutual trust is developed, interpersonal communication increases, and eventually attitudes will change and be carried over into relations outside the group. Often, however, these changes do not endure. Sensitivity training seems to be most effective if sessions are concentrated and uninterrupted, as in several days of continuous meetings.

Sensitivity-training methods derived in large part from those of group psychotherapy. They have been applied to a wide range of social problems (as in business and industry) in an effort to enhance trust and communication among individuals and groups throughout an organization.

Sensitivity training is based on research on human behavior that came out of efforts during World War II to ascertain whether or not an enemy's core beliefs and behavior could be modified by the application of certain psychological techniques. These techniques have been gradually perfected over the years by efforts of business and industry leaders to persuade people to buy products, including the radio and television industry to ascertain how an audience might be habituated to certain types of programming.

Kurt Lewin is credited with being the 'father' of sensitivity training in the United States. Although not an official member of the Frankfurt School, Lewin was a close friend of one of its founders, a Comintern agent and leading member of the German Communist Party named Karl Korsch. Lewin was trained in Wundtian theory at the Psychology Institute Berlin University, and in the 1920s began collaborating with Soviet psychologists, in particular the infamous Alexander R. Luria, who would later develop a process called 'Artificial Disorganization of Behavior' aimed at creating mass social chaos. Luria wrote about the work of Lewin in his 1932 book, *The Nature of Human Conflicts: A Study of the Experimental Disorganization and Control of Human Behavior*. Luria described the specific method of inducing an 'artificial disruption' of the psyche:

"K. Lewin, in our opinion, has been one of the most prominent psychologists to elucidate this question of ... the experimental disorganization of behavior. The method of his procedure - the introduction of an emotional setting into the experience of a human ... helped him to obtain an artificial disruption of the psyche of considerable strength ... Here the fundamental conception of Lewin is very close to ours."

After Lewin came to America in 1933, his work, *The Topology of Psychology*, launched what became known as the 'Topology Group,' a band of leading social psychologists. Under the cover of studying prejudice in children, primarily anti-semitism (which was a hot topic, with World War II in progress), he launched a host of well-funded studies that eventually led to the first American-based high-stress, spirit-breaking, encounter-style, behavior modification facility, the National Training Laboratory (NTL) in Bethel, Maine. The NTL later became formally aligned with the National Education Association (NEA). This and Lewin's 'sensitivity training' changed America's educational system and civil society forever, as acceptance of 'encounter' techniques by supposed bastions of the education establishment like the NEA, the Education Department, and even many churches served as further incentive to produce a new kind of child of the future, in which the rights of the child, as set forth in the famous document by the United Nations, superseded the rights of the parent and other adults. These rights, of course, included sexual and other 'liberation' that pushed children into adult roles before they were ready and without the maturity or

guidance to assume such roles. We may recall from news reports that First Lady Hillary Rodham Clinton continued this effort by strongly advocating early sexual training and liberation for children in her speeches to the Women's Forum in Beijing, China, in 1997.

Kurt Lewin was a primary figure in the wartime research that was later translated into the techniques used today in 'sensitivity training.' The only comprehensive biography on Lewin available anywhere was written by Alfred Jay Marrow. This book describes Kurt Lewin as the key link in the Frankfurt School/Tavistock migration to America.

Small group encounter methods have been expanded to reach an even higher goal – to influence masses of people through coordinated media techniques of thought control through polls, focus groups, and other propaganda mechanisms. Now, these techniques are being used nationwide to force military personnel, officer and enlisted, to accept the radical notion that women should engage in combat with an enemy as members of our armed forces. On a larger scale, they are being used on the American public to accept, encourage, and support such a notion.

The techniques perfected by behavioral scientists to change our core beliefs aim at sowing confusion in the minds of those who would oppose such change. This confusion is created by presenting logical contradictions as equally plausible, valid, and actionable. Those without a strong belief system, be it empirical, scientific, religious, or logical are especially susceptible to the urgings of those who seek change. Those who have strong enough belief systems that enable them to challenge, refute, and oppose this change are coerced by small-group encounter techniques to conform to the 'majority' view as determined and sown by a 'facilitator' and supported by the core group of 'believers' plus the newly recruited 'sheep' who join the 'majority' group for fear of confrontation. If the challenger does not conform to the group pressure to adopt the 'consensus' view, he is further isolated from the group and/or discarded. He is never allowed to participate fully in the process thereafter. In the U.S. military, he is purged from service via the mechanism of his annual 'efficiency report,' thus blacklisted on his promotion to the next higher rank.

According to Eakman, it was the Tavistock Institute that initiated 'sensitivity training' in the United Kingdom. Beginning in 1932, a psychiatrist and British military officer by the name of John Rawlings Rees headed England's famous Tavistock Clinic, an outgrowth of the Tavistock Institute of Medical Psychology, founded in 1920 and alive and well in London today.

It was primarily Rees (under the influence of Lewin) who shaped the Tavistock organization and developed what is known as the "Tavistock Method" of mass psychological control – the deliberate inducement of neurosis. It was Rees who coined the term 'psychologically controlled environment' to refer to the manipulation of a population by the mass media. Rees claimed it was possible to turn an adult population into the emotional equivalent of neurotic children.

World War II provided an excuse to test Rees' psychological control theories. His staff conducted tests on American and British soldiers to ascertain whether, under conditions of induced and controlled stress, groups could be made to behave erratically. In particular they wanted to know whether people would let go even firmly held beliefs under 'peer pressure' to conform to a predetermined set of 'popular' beliefs. This Tavistock Method may be familiar to those who remember reading about procedures used in the former Soviet Union's 'mental hospitals' to correct the attitudes of political prisoners; there, it was called 're-education.'

Tavistock-style centers soon started cropping up in America; at Stanford's Research Institute's Center for the Behavioral Sciences, at the Sloan School at the Massachusetts Institute of Technology, and at the various National Training Laboratories (NTLs), where concepts popularly known as "T-Groups" (therapy groups) and 'sensitivity training' were developed. It was 'brainwashing,' utilizing the small-group approach.

Eakman describes the way it works. "A controlled stress situation is created by a group leader ('facilitator') with the ostensible goal of achieving a consensus or agreement which has, in reality, been predetermined. By using peer pressure in gradually increasing increments, up to and including yelling at, cursing at, and isolating the holdouts, weaker individuals are intimidated into caving in. They emerge, facilitators hope,

with a new value structure in place, and the goal is achieved. The method was refined and later popularized by other schools of behavioral science, such as Ensalen Institute, the NTL Institute for Applied Behavioral Sciences, and the Western Training Laboratories in Group Development.”

A version of the Tavistock Method, called the Delphi Technique was developed by Rand Corporation in the late fifties, initially as a method of forecasting trends so that managers could make product-production decisions. It evolved into a process of separating supporters from detractors in small-group situations so that a predetermined consensus could be manipulated by the 'facilitator.'

Research stemming from the U.S. Government's overt psychological warfare program has taught us a clear lesson. This lesson is best expressed in a book financed by the Carnegie Corporation, *The Proper Study of Mankind* by Stuart Chase (a self-confessed American Marxist), who wrote,

“Theoretically a society could be completely made over in something like 15 years, the time it takes to inculcate a new culture into a rising crop of youngsters... Prepare now for a surprising universe.”

Change agents (i.e. 'facilitators') are trained in the Delphi Technique for use in small-group consensus-building. These 'sensitivity trainers' are, today, trained and credentialed by over 30 various tax-exempt foundations and/or nongovernmental organizations (NGOs) as well as at the Defense Equal Opportunity Management Institute (DEOMI) at Patrick Air Force Base in Florida for the U.S. military.

A change agent serves as a lightning rod in a small group to draw out the objections (and more important, the objectors) so that the target group can be manipulated toward the predetermined affirmative outcome. This is why the change agent must be an 'advocate-organizer-agitator.' His credo is 'Have the courage to change.'

Let us see how a 'change agent' crafts his art on an unsuspecting public. Eakman explains that, as an advocate, the 'change agent' gets the target group to trust him, by making the group believe that he is on their side, a 'good guy,' someone who really cares what each individual in the group thinks. The 'change agent' goes through the motions, as an 'organizer,' of getting each person in the target group to voice concerns about the policy, project, or program in question. He listens attentively, breaks the larger group into smaller discussion groups, urges everyone to make lists, and so on. As he listens and watches, members of the group express their opinions and concerns, "The 'change agent' all the while is learning something about each member of the target group." He is evaluating each participant, learning who the 'leaders' are, who the loudmouths are, which persons seem weak or noncommittal, which ones frequently change sides in an argument. The weaker opponents of the plan or program in question become primary targets.

The facilitator's real 'change agent' self begins to emerge as he points out possible objections to an 'undesirable' position. He may warn that those who hold certain views might be perceived as too extreme by members of the larger group, or by the leaders in the community. Of course he claims his only 'concern' is that the group succeed. The 'change agent' is still everybody's buddy.

Suddenly, the 'change agent' becomes devil's advocate. He dons a professional agitator hat and pits one sub-group against the other. He knows exactly what he is doing, who to pit against whom. If the 'change agent' has done his homework, he has everybody's number, as the saying goes. The 'change agent' begins to question the position of opposition leaders, plays on the fears of individuals with weaker convictions, and finally drives a wedge between the 'pro' group and the 'con' forces by helping to make the latter seem ridiculous, or ignorant, or dogmatic, or inarticulate -- whatever works. The 'change agent' wants certain members of the group to get mad; and thus forces tensions 'to escalate,' as per the Havelock training text, always with the 'good of the group' in mind. The 'change agent' is well-trained in psychological techniques and can fairly well predict everyone's hot buttons. Dissension breaks out. Goals become muddled. Either the group will break up completely or, more likely, the individuals against the policy or program will be shut out. The desired outcome will be achieved.

A specialized application of this 'change agent' technique, applied specifically to teachers, is called the Alinsky Method. It is a staple of the National Education Association (NEA). Saul Alinsky penned Rules for Radicals in 1971, in which he asserted that "any revolutionary change must be preceded by a passive, affirmative, non-challenging attitude toward change among the masses of people." The radical organizer, he said, must be 'dedicated to changing the life of a particular community.' To accomplish this, the organizer must:

"Fan the resentments of the people of a community; fan the latent hostilities of many of the people to the point of overt expression--he must search out controversy and issues ... An organizer must stir up dissatisfaction and discontentment [sic] ... He knows that values are relative ..truth to him is relative and changing."

Ronald G. and Mary C. Havelock (at the University of Michigan during the 1970s), in their Training for Change Agents: A Guide to the Design of Training Programs in Education and Other Fields, describe that social architects and political 'change agents' are charged with the task of 'finding out the values, beliefs ... of [group] members.' This reads like a page right out of ISR-Moscow's Social Psychology and Propaganda text. In fact, Eakman informs us that the book credits for Havelock's text includes a mention that the ISR (a.k.a. Frankfurt School) affiliate at the University of Michigan provided financial support and contributed to the writing of the text. So it is hardly surprising that this training text sounds like its Moscow counterpart. Indeed, Training for Change Agents is the single most damning hard evidence that Marxist-Leninist, Soviet-style manipulative tactics have been part and parcel of America's educational 'restructuring' effort, just as it provides proof that educational restructuring is, at its root, an attempt to remold American society.

Make no mistake. The Tavistock-Delphi-Alinsky approach to 'consensus-building' works. Each is a further refinement upon the last. It works with adults, including teachers, and school children. It works with students in college classrooms, community leaders, and even church groups. It works in 'leadership and ethics' programs at our nation's premier military academies. 'Change agents' walk in with a smile, a pleasant demeanor and a handshake. The targets rarely, if ever, know they are being manipulated. This is now becoming a reality in the nation's military -- the last institution to come under the spell of the 'cultural Marxist' social engineers.

In particular, this approach is apparently becoming entrenched in the 'Leadership and Ethics' Department at the U.S. Naval Academy. The psychology professors who are in charge of this program are trained in the specific skills of the change agent, the provocateur, the 'sensitivity trainer.' They are professionals who are simply implementing at the U.S. Naval Academy, the same program that they have implemented in K-12 public school education over the past 30 years -- bit by bit, step by devious step, as they slowly 'march through the institutions' of the United States of America. While the Academy administrators and alumni sleep! While America sleeps!

Sensitivity training is often offered by organizations and agencies as a way for members of a given community to learn how to better understand and appreciate the differences in other people. It asks training participants to put themselves into another person's place in hopes that they will be able to better relate to others who are different than they are. Sensitivity training often specifically addresses concerns such as gender sensitivity, multicultural sensitivity, and sensitivity toward those who are disabled in some way. The goal in this type of training is more oriented toward growth on an individual level. Sensitivity training can also be used to study and enhance group relations, i.e., how groups are formed and how members interact within those groups.

The origins of sensitivity training can be traced as far back as 1914, when J.L. Moreno created "psychodrama," a forerunner of the group encounter (and sensitivity-training) movement. This concept was expanded on later by Kurt Lewin, a gestalt psychologist from central Europe, who is credited with organizing and leading the first T-group (training group) in 1946. Lewin offered a summer workshop in human relations in New Britain, Connecticut. The T-group itself was formed quite by accident, when workshop participants were invited to attend a staff-planning meeting and offer feedback. The results were fruitful in helping to understand individual and group behavior.

Based on this success, Lewin and colleagues Ronald Lippitt, Leland Bradford, and Kenneth D. Benne formed the National Training Laboratories in Bethel, Maine, in 1947 and named the new process sensitivity training. Lewin's T-group was the model on which most sensitivity training at the National Training Laboratories (NTL) was based during the 1940s and early 1950s. The focus of this first group was on the way people interact as they are becoming a group. The NTL founders' primary motivation was to help understand group processes and use the new field of group dynamics, to teach people how to function better within groups. By attending training at an offsite venue, the NTL provided a way for people to remove themselves from their everyday existence and spend two to three weeks undergoing training, thus minimizing the chances that they would immediately fall into old habits before the training truly had time to benefit its students. During this time, the NTL and other sensitivity-training programs were new and experimental. Eventually, NTL became a non-profit organization with headquarters in Washington, D.C. and a network of several hundred professionals across the globe, mostly based in universities.

During the mid-1950s and early 1960s, sensitivity training found a place for itself, and the various methods of training were somewhat consolidated. The T-group was firmly entrenched in the training process, variously referred to as encounter groups, human relations training, or study groups. However, the approach to sensitivity training during this time shifted from that of social psychology to clinical psychology. Training began to focus more on inter-personal interaction between individuals than on the organizational and community formation process, and with this focus took on a more therapeutic quality. By the late 1950s, two distinct camps had been formed—those focusing on organizational skills, and those focusing on personal growth. The latter was viewed more skeptically by businesses, at least as far as profits were concerned, because it constituted a significant investment in an individual without necessarily an eye toward the good of the corporation. Thus, trainers who concentrated on vocational and organizational skills were more likely to be courted by industry for their services; sensitivity trainers more focused on personal growth were sought by individuals looking for more meaningful and enriching lives.

During the 1960s, new people and organizations joined the movement, bringing about change and expansion. The sensitivity-training movement had arrived as more than just a human relations study, but as a cultural force, in part due to the welcoming characteristics of 1960s society. This social phenomenon was able to address the unfilled needs of many members in society, and thus gained force as a social movement. The dichotomy between approaches, however, continued into the 1960s, when the organizational approach to sensitivity training continued to focus on the needs of corporate personnel.

The late 1960s and 1970s witnessed a decline in the use of sensitivity training and encounters, which had been transformed from ends in themselves into traditional therapy and training techniques, or simply phased out completely. Though no longer a movement of the scale witnessed during the 1960s, sensitivity-training programs are still used by organizations and agencies hoping to enable members of diversified communities and workforces to better coexist and relate to each other.

Goals of Sensitivity Training

According to Kurt Back, "Sensitivity training started with the discovery that intense, emotional interaction with strangers was possible. It was looked at, in its early days, as a mechanism to help reintegrate the individual man into the whole society through group development. It was caught up in the basic conflict of America at mid-century: the question of extreme freedom, release of human potential or rigid organization in the techniques developed for large combines." The ultimate goal of the training is to have intense experiences leading to life-changing insights, at least during the training itself and briefly afterwards.

Sensitivity training was initially designed as a method for teaching more effective work practices within groups and with other people, and focused on three important elements: immediate feedback, here-and-now orientation, and focus on the group process. Personal experience within the group was also important, and sought to make people aware of themselves, how their actions affect others, and how others affect them in turn. Trainers believed it was possible to greatly decrease the number of fixed reactions that occur toward others and to achieve greater social sensitivity. Sensitivity training focuses on being sensitive to and aware of the feelings and attitudes of others.

By the late 1950s another branch of sensitivity training had been formed, placing emphasis on personal relationships and remarks. Whether a training experience will focus on group relationships or personal growth is defined by the parties involved before training begins. Most individuals who volunteer to participate and pay their own way seek more personal growth and interpersonal effectiveness. Those who represent a company, community service program, or some other organization are more likely ready to improve their functioning within a group and/or the organization sponsoring the activity. Some training programs even customize training experiences to meet the needs of specific companies.

In Practice

An integral part of sensitivity training is the sharing, by each member of the group, of his or her own unique perceptions of everyone else present. This, in turn, reveals information about his or her own personal qualities, concerns, emotional issues, and things that he or she has in common with other members of the group. A group's trainer refrains from acting as a group leader or lecturer, attempting instead to clarify the group processes using incidents as examples to clarify general points or provide feedback. The group action, overall, is the goal as well as the process.

Sensitivity training resembles group psychotherapy (and a technique called psychodrama) in many respects, including the exploration of emotions, personality, and relationships at an intense level. Sensitivity training, however, usually restricts its focus to issues that can be reasonably handled within the time period available. Also, sensitivity training does not include among its objectives therapy of any kind, nor does it pass off trainers/facilitators as healers of any sort. Groups usually focus on here-and-now issues; those that arise within the group setting, as opposed to issues from participants' pasts. Training does not explore the roots of behavior or delve into deeper concepts such as subconscious motives, beliefs, etc.

Sensitivity training seeks to educate its participants and lead to more constructive and beneficial behavior. It regards insight and corrective emotional or behavioral experiences as more important goals than those of genuine therapy. The feedback element of the training helps facilitate this because the participants in a group can identify individuals' purposes, motives, and behavior in certain situations that arise within the group. Group members can help people to learn whether displayed behavior is meaningful and/or effective, and the feedback loop operates continuously, extending the opportunity to learn more appropriate conduct.

Another primary principle of sensitivity training is that of feedback; the breakdown of inhibitions against socially repressed assertion such as frankness and self-expression are expected in place of diplomacy. Encounters that take place during sensitivity training serve to help people practice interpersonal relations to which they are likely not accustomed. The purpose is to help people develop a genuine closeness to each other in a relatively short period of time. Training encounters are not expected to take place without difficulty. Many trainers view the encounter as a confrontation, in which two people meet to see things through each other's eyes and to relate to each other through mutual understanding.

There is a difference between the scientific study of group dynamics (a branch of social psychology) and the human relations/group workshop aspect. The popularity of sensitivity training during the 1960s was due in large part to the emotional, experiential aspect. Yet many pragmatic advocates of sensitivity training felt it was necessary to avoid working with the most emotional converts, and conducted experiments in a laboratory in as realistic a situation as could be approximated, seeking a scientific approach more characteristic of psychological studies.

Other programs, not so concerned with the scientific validity of their studies or with freedom from distraction, offer full-time training programs during the day. Participants can choose on their own whether or not to maintain contact with the office for the duration of training. Others offer part-time sessions for several hours a day, and the participants' daily routine is otherwise uninterrupted. Sensitivity-training programs generally last a few days, but some last as many as several weeks.

T-Groups

Within most training groups (T-groups), eight to ten people meet with no formal leader, agenda, or books—only a somewhat passive trainer. Trainers do not necessarily direct progress, just help participants to understand what is happening within the group. In defining a T-group, Robert T. Golembiewski explains the major distinguishing features as follows: "it is a learning laboratory; it focuses on learning how to learn; and it distinctively does so via a 'here-and-now' emphasis on immediate ideas, feelings, and reactions."

The learning takes place within a group's struggle to create something meaningful for itself in an essentially unstructured setting. Issues that traditionally arise in such a setting include developing group norms and cohesion, reasons for scape-goating, selective communication channels, struggles for leadership, and collective decision-making patterns. Power struggles and decision-making conflict are the most prevalent problems as groups work toward establishing an identity and meet individual member needs. More specifically, group members can help each other identify when they are: attempting to control others or, conversely, when they are seeking support; punishing themselves or other group members; withdrawing from the group; trying to change people rather than accepting them; reacting emotionally to a given situation; and ignoring, rather than scrutinizing, behavior between group members.

Ultimately, T-groups were not a tremendously successful part of the sensitivity-training movement. This was in part because T-group trainers do not actually teach, but help people learn by assuming a more passive role. This sometimes confuses and upsets those who expect and desire more guidance. Another reason is that despite the intensity of the learning experience, most participants have difficulty quantifying exactly what they have learned and why it matters.

In Organizations

Organizational goals appear to be the antithesis of those of sensitivity training. Sensitivity training is fuelled on emotional outbursts in group settings, possibly leading to a change in attitude toward another individual. Desired results include more openness, spontaneity, and sensitivity to others. And while organizations are made up of people who interact and could benefit from such training, the goals of an organization are often more related to increased production or higher profit margins than modifying means of interpersonal communication. To make sensitivity training work in organizational settings, the training must be adapted to the goals of the particular organization.

In its orientation as a study of group dynamics, sensitivity training is similar to the general concept of organizational development, a process by which organizations educate themselves in order to achieve better problem-solving capabilities. However, most sensitivity programs do focus on individual behavior within groups, while organizational development focuses on the group and how it works as a whole. Also, sensitivity-training groups are often composed entirely of people who are strangers to each other, while organizational-development programs seek to educate groups of people with shared working histories and experiences. Finally, the end goals of these training programs differ significantly. Sensitivity training, if successful, leads to self-awareness and insight that will help its participants in all aspects of life (including the work-place). Organizational development places more of its focus on becoming aware of one's role within work-place dynamics, leading to more effective group functioning (one of sensitivity training's goals, but with a more defined group in which to function).

Political Correctness and The Response to Sensitivity Training

The development of sensitivity training has led many critics to claim that such training is not really designed to help people be more sensitive to other people's ideas and feelings, but it is really crafted to change one's attitudes, standards and beliefs. These critics argue that sensitivity training merely wears people down until they conform to the mentality of the group, and agree that views of the group are acceptable, regardless of the value of the group idea or belief. These critics further assert that sensitivity training is often misused to force people into complying with community directives to conform to standards of political correctness. Political correctness has been defined as "avoidance of expressions or actions that can be perceived to exclude or marginalize or insult people who are socially disadvantaged or discriminated against" or the "alteration of language to redress real or alleged injustices and discrimination

or to avoid offense." For example, the politically correct (PC) word for someone who is crippled would be disabled, and the PC word for someone who is blind would be visually impaired. While political correctness seems like a good thing, opponents of the political correctness movement argue that it represents a totalitarian movement toward an ideological state in which citizens will be terrorized into conforming with the PC movement or risk punishment by the State.

This friction between advocates for sensitivity training and opponents of the PC movement has resulted in an emotional reaction to sensitivity training the workplace. In spring, 2000, the Environmental Protection Agency announced to its Washington-area employees that it was planning a series of sensitivity training seminars to "create understanding, sensitivity and awareness of diversity issues and provide a forum for exchanging information and ideas." The course failed miserably. The EPA employees complained the course literature was condescending and one-sided. Many employees seemingly felt that only certain ones of them were being asked to be sensitive to the others.

Proponents of the PC movement assert that it merely makes each of us a bit more sensitive to the challenges that our fellow citizens may face on a day-by-day basis. Clearly, the debate will continue. Sensitivity training will continue, and employers and other organizations will continue to assess whether its effectiveness warrants the costs.

(c) Explain Vroom's expectancy theory of work motivation and link this theory with variable-pay programs.

TOPIC: *Work Psychology and Organizational Behavior*
SUBTOPIC: *Theories of work motivation*
LEVEL: *Easy*
NATURE: *Fundamental - Applied*

REFERENCE:

Expectancy Theory

One of the things that is unique about humans, at least with respect to cognition, is their ability to anticipate the future and adjust their behavior accordingly. Expectancy Theory is based on this uniquely human characteristic, and is focused on the cognitive processes that drive employees' decisions regarding where they will direct their efforts (Vroom, 1964, 1995). The basic premise of Expectancy Theory is that employees will generally direct their efforts toward behaviors or courses of action when:

1. There is a high probability that they will be able to perform the behavior if they try.
2. There is a high probability that the behavior or course of action will lead to some outcome.
3. The outcome that will result from the behavior or course of action has value to the person.

If any of these three conditions is lacking, a person is unlikely to direct his or her efforts toward that particular course of action. According to Vroom (1964, 1995), the belief that one's efforts will allow one to perform a given behavior is referred to as **expectancy** and is typically denoted as effort-to-performance ($E \rightarrow P$). Because expectancy is a belief about the future, Vroom proposed that this is a probability function and, as such, may range from 0 to 1. An expectancy of zero essentially means there is no way that a person's efforts will result in a given level of performance. In contrast, an expectancy of close to 1 indicates that an employee has considerable confidence that if he or she puts forth effort, a given level of performance can be achieved. Expectancy beliefs may be based on a number of factors: a person's innate ability, his or her level of training, or the existence or lack of significant performance constraints. The belief that a given behavior or level of performance will be associated with a given outcome is referred to as **instrumentality** and is typically denoted as performance-to-outcome ($P \rightarrow O$). Like expectancy, instrumentality is a probability function. For example, an employee may perceive the instrumentality for the relationship between a given level of performance and a pay increase to be zero if salary raises are across the board or are determined by collective bargaining. On the other hand, a high instrumentality would indicate a strong possibility that a given level of performance would be rewarded with a given pay increase. Instrumentality beliefs are based,

to a large extent, on stated organizational reward policies (i.e., the existence of merit pay), but are also based on the manner in which such policies are carried out.

The value of the outcomes that an employee may obtain is referred to as **valence**. According to Vroom, because of a number of factors, people differ on the value they attach to outcomes that can be obtained for different levels of performance. One person, for example, may place a high value on monetary compensation; thus, a high raise may have considerable valence. Another person, in contrast, may place greater value on feelings of mastery and praise from others. One interesting thing about valence is that it can take on *negative* values, and this has implications for predicting the direction of effort. Consider, for example, all of the things that may occur if an employee performs his or her job very well. Pay raises, praise from one's supervisor, recognition from others, and feelings of accomplishment are outcomes that most people would find at least moderately desirable. In contrast, those who perform their jobs well often end up having to perform a greater proportion of the work, and their higher salaries may encounter resentment from fellow employees. These outcomes would be considered by most people to be at least moderately *undesirable*.

Vroom proposed that Expectancy, Instrumentality, and Valence can be combined, in equation form, to explain employee motivation. This equation is presented in Table 8.3. The variable that this equation predicts is labeled **force**. This simply represents the level of effort that an employee will direct toward a given level of performance. Readers should be clear that force is *not* the same as performance. A person may direct his or her efforts in a way that is consistent with Expectancy Theory, yet not perform well because of a lack of innate ability or perhaps performance related constraints.

As is shown in Table 8.3, for each possible outcome that can result from a given level of performance, instrumentality is multiplied by the valence. These values are then summed, and this sum is then multiplied by expectancy. Given this equation, force will be highest when employees believe that effort will lead to a given level of performance, and that the level of performance will lead to valued outcomes. Conversely, if any of these values are near zero, the motivational force will be considerably lower. For example, let's say an employee believes there is a high probability that effort will lead to a given level of performance, and that the outcomes that are possible are highly valued. If this employee does not believe that these outcomes are contingent on performance (e.g., instrumentality is low), then force will be low.

TABLE 8.3

The Equation Representing How the Components of Expectancy Theory Interact to Determine Motivational Force

$$F = E (\Sigma I \times V)$$

F = Motivational force

E = Expectancy (E→P)

Σ = Summing over all possible outcomes

I = Instrumentality (P→O)

V = Valence

As another example, consider an employee who believes that effort will lead to a given level of performance, and that performance will lead to a number of outcomes. In this case, force may still be low if the outcomes have little value to the employee. The possibility of a promotion, or perhaps of praise, does not mean much to the employee. Finally, an employee could believe that performance leads to highly valued outcomes, but he or she does not believe that the effort will lead to performance (e.g., expectancy is low). For example, many marathon runners believe that setting a world record would lead to a number of highly

valued outcomes (e.g., money, fame, feelings of accomplishment), yet do not believe they can achieve this level of performance, even with considerable effort.

Since the development of Expectancy Theory by Vroom in 1964, it has become one of the dominant motivational theories in organizational psychology. As a result, considerable research has examined expectancy theory predictions. Van Eerde and Thierry (1996) performed a meta-analysis of 77 studies that have tested Expectancy Theory predictions, and examined the correlations between expectancy theory components and outcomes such as performance, effort, intention, preference, and choice.

The results of this study showed mixed support for Expectancy Theory. For example, although individual components such as expectancy and instrumentality were correlated with a number of outcomes, multiplying terms together, as suggested by Expectancy Theory, did not result in greater prediction. Another important finding from this meta-analysis was that correlations based on studies employing **within-subjects designs** were stronger than correlations from studies employing **between-subjects designs**. In a within-subjects design, Expectancy Theory would be used to predict a *particular individual's* choice among different levels of performance or different courses of action. In a between-subjects design, Expectancy Theory would be used to predict performance or effort from a large number of individuals. This finding supports the contention that the theory is useful in predicting how people will direct their efforts when faced with a number of different choices (e.g., Mitchell, 1974; Muchinsky, 1977).

In addition to direct empirical tests, Expectancy Theory has received indirect support from studies that have examined the impact of financial incentives (Jenkins, Mitra, Gupta, & Shaw, 1998; Lawler, 1990; Lawler & Jenkins, 1992). Although financial compensation will be discussed in greater depth in Chapter 9, suffice it to say that considerable evidence has shown that financial incentives can be a powerful motivator. Although this in itself does not constitute direct support for Expectancy Theory, it is certainly consistent with many of its propositions.

Link with Variable Pay Program

Variable pay is viewed as a means of aligning the interests of employees with those of employers. Pay is a powerful communicator of organizational goals and priorities and companies that expect to be successful must make employees become partners in their success (Shuster & Zingheim, 1993). Research has provided supporting evidence that variable pay succeeds at motivating people. Variable pay creates a belief among employees that good performance will: 1) lead to higher pay, 2) minimize the perceived negative consequences of performing well, and 3) create conditions such that positive outcomes other than pay will be seen to be related to good performance (Lawler, 1971).

Variable pay, sometimes referred to as 'pay at risk', is the portion of the remuneration package that has to be earned on each occasion, usually by meeting and exceeding individual, team or organizational performance criteria. As Schuster and Zingheim, (1992) put it: 'variable pay is any form of direct pay not folded into base pay that varies according to performance'. Bonuses, performance-related pay, profit sharing and team rewards all come under the variable pay banner. While the rewards from variable pay schemes can be substantial, employees are forced to shoulder more of the business risks - rewarding the 'upside' and penalizing the 'downside' of performance. The relatively large potential rewards make variable pay schemes appealing to some employees, particularly in periods of low inflation when basic pay increases are comparatively small. Companies are particularly attracted to variable pay for senior executives because of both the potential incentive effect and need to be seen to reward only success. Executive remuneration has become a distinct form of reward and will not be discussed here. With respect to the rest of the workforce, employers increasingly see the benefit of variable pay in linking reward to performance and in promoting a common interest between staff and management. It is also attractive to employers because payouts - such as bonuses and profit sharing payments - tend to be non-consolidated so do not increase fixed labor cost.

Variable pay for performance is not a new concept, nor is it without its detractors. Many compensation professionals opposing variable pay for performance relegate it to "has been" status among pay plan concepts. They contend that pay for performance does not work and newer approaches have come along

that offer better ways to effectively administer pay programs tied to performance, such as skill-based pay, pay for knowledge, wide job bands, or new types of incentive programs (Solano, 1992).

Another controversy associated with variable pay programs is the belief by many that the payment of money for performance does not create an incentive. Psychologists who say that money does not motivate affirm that motivation is a multifaceted issue. They contend that some factors motivate primarily in a positive direction with a neutral negative effect, while other factors motivate primarily in a negative direction with a neutral positive effect. Herzberg argued this concept with the two factor theory of "hygiene maintenance" and "motivators". Herzberg's theory, however, does differentiate "salary" and "money". Salary is identified as a "hygiene factor" and as such could cause employee dissatisfaction if a salary expectation is not realized. Salary would, however, have virtually no effect on increased motivation. Money, on the other hand, could be a "motivating factor" (a measurement of achievement) but have little effect as a dissatisfier (Kossen, 1983). The controversy lies with whether variable pay is considered a "hygiene factor" or a "motivating factor." Much depends on a variable pay plan's design and application.

While some question the effectiveness of variable pay for performance, other theorists believe that variable pay plans can be effective if they are properly designed, implemented, and maintained. Gross and Bacher (1993) have identified some of the critical factors in proper design and implementation of variable pay for performance plans. These include; 1) senior management support, 2) employee acceptance, 3) clear goal definition and unambiguous performance measures clearly linked to employee efforts, 4) a supportive organizational culture, 5) clear communications, and 6) strong education and training. Incentive pay can pull a company out of the doldrums of complacency and create a new, vibrant operating environment in which all truly espouse the concept of "shared destiny" and believe that every individual can make a difference and will be rewarded based on that difference (Gross & Bacher, 1993).

Variable pay for performance programs can be viewed as an approach to the creation of a compensation strategy that will assist an organization in defining its core values. Through identification of its core values and motivation of employees to achieve goals consistent with these values, companies stand to improve the quality of their business (Sigler & Santone, 1993). Variable pay can be a key element to that end. The challenge for the 1990s and beyond will be to design and implement pay programs that truly pay for performance—and reward employees based on their contributions to the company's business objectives.

Variable pay systems, such as profit sharing, bind overall earnings to variations in corporate performance while incentives like bonuses link rewards to improvements in one or a combination of individual, team, unit or company performance. Under such schemes, employees shoulder an equal share of the risk with the employer; if the target is not achieved there is no payment. Variable pay is often a key component of the total reward package.

The different forms of variable pay

Variable pay systems are commonly divided into the following three main categories:

1. Payment-by-results schemes: such as productivity bonus and sales incentives where a proportion of the employee's pay is linked directly to the level of output or business outcome.
2. Performance schemes: including individual performance related rewards and team-based pay where employees are encouraged to meet specific standards or objectives that are not necessarily linked directly to output but help the organization achieve its overall business goals.
3. Financial participation schemes: such as profit sharing paid in cash or shares via some form of equity-based arrangement where employees are entitled to a share of the organization's performance or profits.

There is a further differentiation between the various forms of variable pay: employees can, in the main, directly influence the achievement of goals attached to schemes in the first two of these categories, but there tends to be only an indirect link between employees' day-to-day activities and the triggers for awards and payouts from schemes in the third category. Although Lawler (1990) suggests that a clear 'line-of-sight' should exist between what individuals and teams do and what they will get for doing it, the activities of

employees have little direct influence on the achievement of corporate profitability for a profit-sharing award, for example. Another distinction is between bonuses paid after performance, which is a reward, and those offered in advance as an incentive. The latter is more popular and more effective, as such arrangements tend to have clear measures and be based on a fixed formula.

The three categories are not dear-cut. As variable pay schemes have become more sophisticated, they also tend to overlap, from one category into another. Fewer bonus schemes now focus exclusively on output, for instance; most cover a range of factors (multi-factor schemes). Although bonus payouts might be triggered by an increase in output, for example, there are likely to be quality and safety objectives attached to prevent greater production coming at the cost of poorer quality products and declining worker safety.

The variable pay programs were the first programs identified in the extrinsic rewards segment, and it can be differentiated from the traditional compensation programs where an employee's pay is based on some organizational/individual measure of performance. Forms of variable pay have become a significant feature of remuneration practice in the UK over the past 20 years, but they are not a new idea. A 1928 study, for example, estimated that 64 per cent of US firms had introduced bonus and profit-sharing schemes (Balkom and Brossy, 1997). Incentive payments, such as piecework and productivity agreements were widespread in UK manufacturing industry for many years. The rationale for such rewards is the belief that people are motivated to work harder or in a different way in return for financial gain. By linking the reward to the achievement of a specific goal such as improved productivity, employees' discretionary effort is channeled in that direction. Employees' support for such arrangements will last as long as a positive relationship exists between the expected outcome (the reward) and the performance (effort expended). With extrinsic rewards programs, it can also be said, that variable pay is probably most compatible with expectancy theory because individuals perceive a strong relationship between their performance and rewards they receive if motivation is maximized.

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Section - B

5. Answer the following in about 150 words:

12x5=60

(a) Can achievement motivation be included as a base of training for economic growth and development of a country? Discuss the contribution of McClelland and his team in this context.

TOPIC: *Psychology and Economic development*
SUBTOPIC: *Achievement motivation and economic development*
LEVEL: *Easy*
NATURE: *Fundamental - Applied*

REFERENCE:

Need for achievement (N-Ach) refers to an individual's desire for significant accomplishment, mastering of skills, control, or high standards. The term was first used by Henry Murray and associated with a range of actions. These include: "intense, prolonged and repeated efforts to accomplish something difficult. To work with singleness of purpose towards a high and distant goal. To have the determination to win". The concept of N-Ach was subsequently popularised by the psychologist David McClelland.

Need for Achievement is related to the difficulty of tasks people choose to undertake. Those with low N-Ach may choose very easy tasks, in order to minimise risk of failure, or highly difficult tasks, such that a failure would not be embarrassing. Those with high N-Ach tend to choose moderately difficult tasks, feeling that they are challenging, but within reach.

People high in N-Ach are characterised by a tendency to seek challenges and a high degree of independence. Their most satisfying reward is the recognition of their achievements. Sources of high N-Ach include:

- Parents who encouraged independence in childhood
- Praise and rewards for success
- Association of achievement with positive feelings
- Association of achievement with one's own competence and effort, not luck
- A desire to be effective or challenged
- Intrapersonal Strength

The pioneering research work of the Harvard Psychological Clinic in the 1930s, summarised in *Explorations in Personality*, provided the start point for future studies of personality, especially those relating to needs and motives. David C. McClelland's and his associates' investigations of achievement motivation have particular relevance to the emergence of leadership. McClelland was interested in the possibility of deliberately arousing a motive to achieve in an attempt to explain how individuals express their preferences for particular outcomes — a general problem of motivation. In this connection, the need for achievement refers to an individual's preference for success under conditions of competition. The vehicle McClelland employed to establish the presence of an achievement motive was the type of fantasy a person expressed on the Thematic Apperception Test (TAT), developed by Christiana Morgan and Henry Murray, who note in *Explorations in Personality* that "...when a person interprets an ambiguous social situation he is apt to expose his own personality as much as the phenomenon to which he is attending... Each picture should suggest some critical situation and be effective in evoking a fantasy relating to it" (p531). The test is composed of a series of pictures that subjects are asked to interpret and describe to the psychologist. The TAT has been widely used to support assessment of needs and motives.

The procedure in McClelland's initial investigation was to arouse in the test audience a concern with their achievement. A control group was used in which arousal was omitted. In the course of this experiment, McClelland discovered through analyzing the stories on the TAT that initial arousal was not necessary. Instead, members of the control group — individuals who had had no prior arousal — demonstrated significant differences in their stories, some writing stories with a high achievement content and some submitting stories with a low achievement content. Using results based on the Thematic Apperception Test, McClelland demonstrated that individuals in a society can be grouped into high achievers and low achievers based on their scores on what he called "N-Ach".

McClelland and his associates have since extended their work in fantasy analysis to include different age groups, occupational groups, and nationalities in their investigations of the strength of need for achievement. These investigations have indicated that the N-Ach score increases with a rise in occupational level. Invariably, businessmen, managers, and entrepreneurs are high scorers. Other investigations into the characteristics of the high achievers have revealed that accomplishment on the job represents an end in itself; monetary rewards serve as an index of this accomplishment. In addition, these other studies found that the high achievers, though identified as managers, businessmen, and entrepreneurs, are not gamblers. They will accept risk only to the degree they believe their personal contributions will make a difference in the final outcome.

These explorations into the achievement motive seem to turn naturally into the investigation of national differences based on Max Weber's thesis that the industrialization and economic development of the Western nations were related to the Protestant ethic and its corresponding values supporting work and achievement. McClelland and his associates have satisfied themselves that such a relationship, viewed historically through an index of national power consumption, indeed exists. Differences related to individual, as well as to national, accomplishments depend on the presence or absence of an achievement motive in addition to economic resources or the infusion of financial assistance. High achievers can be viewed as satisfying a need for self-actualization through accomplishments in their job assignments as a result of their particular knowledge, their particular experiences, and the particular environments in which they have lived.

This way, D.C. McClelland analysed the achievement motivation in the children stories of different countries and compared it with the economic development of the countries. The textbooks of certain countries mostly contained stories of success of active people. The textbooks of other countries contained stories of failure and misery. Twenty-five years later the economic development of the countries was analysed. In the countries of the textbooks emphasising success, the economic development had been positive, in the countries of negative-attitude textbooks, the economic gain was absent, or very insignificant. McClelland has drawn broad conclusions from his research findings. He writes that achievement motivation accounts for the rise of a country. He recommends investment in a man, not so much in a plan (McClelland, 1962).

After forty years, we can conclude that the McClelland's study is an important part of social sciences (Gilleard, 1989). Many investigations are supporting its conclusions. R. L. Venecky (1992) has found a good harmony between achievement motivation in the textbooks and the number of patents in the USA in 1800-1960. R. Simon-Schaefer (1990) writes about an optimistic view on life in the Age of Enlightenment. Human understanding was considered boundless. The evolution theory taught that we are the best species of living beings. The optimistic view on life was interrelated with rapid economic and cultural development. M. M. Dubrovskaya (1992) has compared favoured children stories in the USSR and the USA. In the first country, the characteristic hero was Ivanushka the Fool who lolled on the oven and waited until a princess came to marry him. In the second country, the most favoured hero was Mickey Mouse. M. M. Dubrovskaya has told in her presentation that there was a clear relationship between the ethos of children stories and countries' economic development.

We have recently compared achievement motivation in Estonian, Finnish, and Russian readers for the second grade students. Finnish reader contained more optimistic stories and more successful activities. Persons in the Finnish reader were often hardworking and they had many possibilities to choose for their activity. The results coincide with the level of economic development in the three countries. The content of

textbook units reflects and influences the way of thinking and the mode of life in the community that uses the textbooks.

McClelland's research has been criticised several times. Only four years after the McClelland's book was published, S. P. Schatz (1965) wrote that the indices of economic development in McClelland's research were not representative and his data did not support his thesis. Twelve years later A. S. U. Mazur and Rosa E. (1977) used more advanced methods for the analysis of McClelland's data for the years 1950-1971 and found no correlation between the achievement motivation of nations and their economic development in the following years. C. J. Gilleard (1989) correlated recent data of economic development of 34 countries in the years 1950 - 1977 and the data about achievement motivation in 1950 from McClelland's study. He found no correlation. In 1961 McClelland prognosticated that certain countries would be more successful than others. The prognostication proved not correct in 1989 at least for some countries. C. J. Gilleard (1989) concludes that he could not find any support to McClelland's theory that achievement motivation influences national economic growth. He admits, that there can be correlation between the economic success of a person and its level of achievement motivation. No one of McClelland's critics has reanalysed his data from 1925.

The critics have paid attention to the measures of economic development, however, the deficiencies can be in the measures of achievement motivation as well. It was mentioned above that the measures of economic development were not representative in some cases. Were the measures of achievement motivation representative? Was the sample of the analysed textbooks and children story books representative to all the books available for children at this time in this country? Were the persons interviewed in measuring the nations' level of achievement motivation representative of the nations' active population? If the samples of interviewed persons or analysed textbooks are described in the papers then reader can conclude that the samples were not representative.

The different measures of achievement motivation do not correlate with each other and are not very reliable. M. Yasin (1996) accepts the conclusion of B. R. Johnson that the achievement measurement instruments are unreliable. J. Collins, P. J. Hanges and E. A. Locke (2004, 98) wrote that the reliability of TAT is often less than .60. The two important instruments for the measurement of achievement motivation - TAT and Lynn's Achievement Motivation scale, had a negative correlation in J. Langan-Fox (1995) study. J. Collins, P. J. Hanges and E. A. Locke (2004, 112) also conclude that TAT and the questionnaire measures do not correlate with each other but both of them are valid measures of achievement motivation. The validity can be explained in this case by the assumption that achievement motivation is not a very clear concept and it has different aspects. The investigated aspects of achievement motivation are even independent from each other. If we accept that there is one concept of achievement motivation, then the factor analysis of its different measures might clear up the best measures of achievement motivation or the best combination of the measures.

D. C. McClelland has investigated the relationship of achievement motivation and economic development on the macro level. In this case, it is very difficult to reach the representativity of the subjects interviewed or the textbooks analysed. Beside that, the used indices of economic development have been questioned by many critics. The relationship of achievement motivation and economic development is easier to investigate on the level of individual entrepreneurs. The investigators compare the personal characteristics of entrepreneurs with the success of their enterprises. Many studies of this kind have been made in the recent years. The results of the studies are supporting McClelland's idea.

D. L. Lee and E. W. K. Tsang (2001) have interviewed 168 entrepreneurs in Singapore. They have compared the growth rate of sales and the profit of the ventures with the need for achievement, internal locus of control, self-reliance, and the extroversion of the entrepreneurs. The need for Achievement was the personality trait which had the greatest impact on the venture performance (the path coefficient was 0.14 in PLS model). An analogical research was carried out by F. W. Swierczek and T. Than Ha (2003) in Vietnam. They also found that SME owners were motivated by challenge and achievement.

M. Yasin (1996) has investigated the relationship in Arab culture. He has measured the entrepreneurial effectiveness by the annual income of the enterprises, the need for achievement by Job Choice Exercise, and

the job satisfaction by the subjects' responses to four questions. His subjects were 220 Jordanian entrepreneurs. M. Yasin has found positive and rather high correlations between the three measures. For example, the correlation between the need for achievement and job satisfaction was .66. The need of achievement added .17 to the quadrate of the coefficient of multiple correlation in the regression model of income.

F. Diaz and A. Rodrigues (2003) have studied 38 entrepreneurs from Andalusian cooperatives. They measured the locus of control by the Rotter Scale and the need of achievement by the Lynn's Achievement Motivation Questionnaire. They compared the average results with the norms for population in general and with the average data for entrepreneurs from small and medium-size companies. F. Diaz and A. Rodrigues conclude that the achievement motivation and the locus of control of entrepreneurs from cooperatives are halfway between the SME entrepreneurs and the qualified workers.

Ki Suzuki, S.-H. Kim, and Z.-T. Bae (2002) made an interesting comparison of entrepreneurs in two countries. They conducted a survey of 396 Japanese firms and 188 Silicon Valley firms. In both countries, entrepreneurial motivation was important - entrepreneurs pursued their challenge in life and sought to improve their capabilities. The entrepreneurs in Japan valued social recognition higher than the entrepreneurs in the Silicon Valley. The latter paid more attention to a better quality of life and making money. Entrepreneurs in both countries considered competitors, lack of funds and poor sales as influential risks. Japanese entrepreneurs paid more attention to technical, human, and organizational risks. Entrepreneurs in the Silicon Valley were more concerned with marketing and financial risks. We see that social factors constitute a more important component of entrepreneurial motivation in Japan and financial factors in the Silicon Valley.

Several meta-analyses of research dealing with achievement motivation have been carried out. The last meta-analysis has been conducted by C. J. Collins, P. J. Hanges, and E. A. Locke (2004). They have summarised the results of 41 studies in which the achievement motivation levels of different groups of people were compared. All the indices of difference in these studies were converted into correlation coefficients. The correlation coefficients between achievement motivation and entrepreneurial activity varied significantly. The lowest in their table 1 was -.15 and the highest .68. (Collins, Hanges, and Locke, 2004, p 106). The average coefficient of correlation between achievement motivation and entrepreneurial activity was .20.

The correlation coefficient is unexpectedly low. It means that achievement motivation and entrepreneurial activity have only 4% joint variability. The authors explain that the achievement motivation influences the activity all the time and therefore its effect is remarkable even by such a low coefficient of correlation. However, another explanation of the big interest in achievement motivation can be found in the meta-analysis. The authors have divided the investigations into different groups and found the average coefficient of correlation for these groups as well. For example, the coefficient of correlation between achievement motivation and career choice was .14 if entrepreneurs and managers were compared and the coefficient of correlation was .35 if entrepreneurs and all other workers were compared. In reality, the last comparison is most important and therefore the last correlation can be taken as an indicator of the relationship between achievement motivation and career choice. The correlation means that 12% of career choice can be explained by achievement motivation. In known group studies, the mean correlation between achievement motivation and performance was even .46 (Collins, Hanges, and Locke, 2004, p 108).

The achievement motivation has been proven to be important for venture growth in different cultures. However, the relationship of Confucian ethics to entrepreneurship is not very clear. The "Five Dragons" in the Asia-Pacific region (Japan, Taiwan, South Korea, Hong Kong, and Singapore) have very high rates of economic growth but the Superior Man in Confucian ethics thinks about righteousness not about gain. T.C. Hsiao (1997) composed a questionnaire for 395 R&D professionals in Taiwan. The questions were aimed at finding out the R&D professional type according to Confucian standards. The Superior Man thinks about law and behaves according to the law. He is affable and satisfied. The Superior man is aimed at developing himself. The Inferior man thinks about his personal benefits and he is always distressed. He is adulatory and seeks the other people to do what he wants. The children are taught to be the Superior Man. T.C. Hsiao has found that the Superior Man type R&D workers are mostly engaged in technical staff work and the

Inferior Man type R&D workers are mostly engaged in managerial work. He concludes that the Confucian value system is quite unfavourable for the management. T.C. Hsiao (1997) compares the two leaders of China: Chiang Kai-shek and Mao Tse-tung. Chiang Kai-shek was a Superior Man and Mao Tse-tung an Inferior Man. Under the leadership of Chiang Kai-shek, Taiwan's economy achieved marvellous results. We see the validity of the Weber's idea: a successful businessman has to be honest. It is time to transfer the principle to politicians as well.

The ethos of the previous text is that the high level of the need for achievement is important for economic development. At the same time, S. Singh (1977) writes (relying on S. A. Rudin's research) that nations with a high need for achievement may have a high death rate from hypertension and other illnesses. J. Langan-Fox (1995) has found that the entrepreneurs with a very high level of need for achievement were the lowest in job satisfaction. She writes that the persons are all the time aspiring the very high standards of excellence and can never be satisfied. There should be an optimal level of the need for achievement.

In this regard, the investigation by B. D. Kirkcaldy, A. Furnham, and T. Martin (1998) is very interesting. The authors have compared attitudinal variables, economic variables and the subjective well-being of 14,188 subjects in 53 countries. Some of the attitudinal variables were defined as follows. Competitiveness is the motive to outperform other persons. Mastery is the need to master problems and situations. Achievement conformity is the commitment to the organisation and its success. The values of subjective well-being for the 53 nations were taken from the research of E. Diener, M. Diener, and C. Deaner from 1995. The regression analysis of the data revealed that the subjective well-being of nations could be explained by four attitudinal variables: high mastery, low competitiveness, high achievement conformity, and low importance attached to money. "Individuals with instrumental beliefs and commitments as well as achievement orientation, but who are cooperative and not exclusively materially oriented, have higher well-being" (Kirkcaldy, Furnham, and Martin, 1998, p 260). The highest level of achievement motivation is not the best. In another research, B. D. Kirkcaldy, A. Furnham, and R. Levine (2001) explain that competitiveness and work ethics are important for the development of a country at the early stages of industrialization. The indices are not any more important when the plateau of development has been achieved. Cooperation is important for the well-being at this level of development and it fosters economic development as well.

Even more interesting was the curvilinear relationship between the quality of life (HDI) and competitiveness in the research by B. D. Kirkcaldy, A. Furnham, and T. Martin (1998). The overall correlation between the variables is negative. The higher the competitiveness, the lower the quality of life. But competitiveness is a part of achievement motivation. When competitiveness is low, then ascending competitiveness accompanies the ascending of the quality of life. However, very soon the further raising of competitiveness leads to the decline in the quality of life. The need for achievement should not be the only driving force of people.

To conclude the exciting overview about the achievement motivation and economic development, we can say that it remains an important topic even nowadays. Despite the fact that the severe critics addressed the different aspects of the investigations on the macro level, in recent years we can find many investigations on the micro level supporting the idea that high achievement motivation coincides with the rapid development of enterprises. We can believe that achievement motivation facilitates development in other areas as well, for example, science, culture, etc.

One fundamental lack and perspective of the investigations is to be mentioned. Almost all of the investigations rely on the correlational and not the causal relationship. The idea of the investigations carried out is as follows. Two or more groups of people (countries, firms) are compared on the level of achievement motivation and economic development. Usually the group with a higher economic development has the higher level of achievement motivation as well. However, the data do not reveal which of the two indicators is the cause and which is the effect. May be the high level of achievement motivation has facilitated economic growth. It may also be that the high economic level has raised the level of achievement motivation. There can be even a third indicator that causes the raise in both investigated indices. For example, the habit to work hard may raise the achievement motivation and develop economy. An analogical situation characterizes textbook research: the familiarity of a topic in society enables the

author of texts to use simple sentences and known words and at the same time students have more correct answers to the questions from familiar topics.

Is the high level of achievement motivation a cause of rapid economic development, as we believe? To have a firmly based answer, we need the investigations of causal relationship. In a causal investigation, the achievement motivation of a group of people will be raised by educational means and then the economic success of the group in the following years will be compared with the economic success of a comparable group that did not receive the educational treatment. O. C. Hansemark (2003) has recently made such a small research and found that people from the experimental group were establishing enterprises more often in the following years than the people from the non-treated group. M. Yasin (1996, 75) also believes that the investment in achievement training may be significant for economic growth. Here we have a marvellous possibility to facilitate the development of our country and it is a good topic for research.

(b) Justify with examples how the insights derived from studies on 'intergroup contact hypothesis' would be useful in promoting harmonious relations among different castes and in maintaining social order.

TOPIC: *Psychological problems of social integration*
SUBTOPIC: *Psychological strategies for handling the conflicts and prejudices*
LEVEL: *Easy*
NATURE: *Fundamental - Applied*

REFERENCE:

Social scientists began to theorize about intergroup contact after World War II (Watson 1947, Williams 1947). Allport's (1954) hypothesis proved the most influential by specifying the critical situational conditions for intergroup contact to reduce prejudice. His hypothesis has received extensive attention both for its rare theoretical status and policy importance (Pettigrew 1971). Oddly, for a discipline that focuses on face-to-face interaction, social psychology rarely decomposes situations into their basic components. Allport's attempt is a prominent exception. And it has proven useful in applied settings, such as in the distinction between racial desegregation and integration in schools (Pettigrew 1975).

Allport's Intergroup Contact Hypothesis

Allport (1954) held that positive effects of intergroup contact occur only in situations marked by four key conditions: equal group status within the situation; common goals; intergroup cooperation; and the support of authorities, law, or custom.

EQUAL STATUS Allport stressed equal group status within the situation. Most research supports this contention, although "equal status" is difficult to define and has been used in different ways (Cagle 1973, Riordan 1978). It is important that both groups expect and perceive equal status in the situation (Cohen & Lotan 1995, Cohen 1982, Riordan & Ruggiero 1980, Robinson & Preston 1976). Some writers emphasize equal group status coming into the situation (Brewer & Kramer 1985). Thus, Jackman & Crane (1986) show negative effects from contact with out-group members of lower status. Yet Patchen (1982), in research on racially mixed high schools, found this to be less important than equal status within the situation. The meta-analytic results of Mullen et al (1992) clarify these disparities. They noted that in-group bias increased with relative status in laboratory groups but decreased in field research with real groups.

COMMON GOALS Prejudice reduction through contact requires an active, goal-oriented effort. Athletic teams furnish a prime example (Chu & Griffey 1985, Miracle 1981, Patchen 1982). In striving to win, interracial teams need each other to achieve their goal. Goal attainment, such as a winning season, furthers this process.

FOUR PROCESSES OF CHANGE THROUGH INTERGROUP CONTACT

Recent work suggests that four interrelated processes operate through contact and mediate attitude change: learning about the out-group, changing behavior, generating affective ties, and in-group reappraisal.

LEARNING ABOUT THE OUTGROUP Initial theory held this process to be the major way that intergroup contact has effects. When new learning corrects negative views of the out-group, contact should reduce prejudice. Support for such a benign process is available, though plausible rival explanations remain. Consider Jeffries & Ransford's (1969) findings on middle-class white reactions to the Watts race riot in Los Angeles. Those who had prior interracial contact were significantly less fearful of blacks, less punitive, and less likely to view the riot as caused by outside agitators. Yet cognitive research has uncovered a host of mechanisms that limit learning material that counters our attitudes and stereotypes. Writing from this perspective, Rothbart & John (1985) conclude that disconfirming evidence alters stereotypes only if (a) the outgroup's behavior is starkly inconsistent with their stereotype and strongly associated with their label, (b) occurs often and in many situations, and (c) the outgroup members are seen as typical. These restrictions eliminate most intergroup contact situations.

Nonetheless, new information about an outgroup can improve attitudes. Stephan & Stephan (1984) found that contact allowed Anglo students to learn more about Chicano culture that in turn led to more positive attitudes toward Chicano classmates. "Ignorance," they assert, "promotes prejudice..." (Stephan & Stephan 1984, p. 238). Other studies with the cultural assimilator technique of Triandis (1994) provide further evidence that learning about an outgroup can improve intergroup attitudes and stereotypes (Gardiner 1972, Weldon et al 1975).

Still, the dominant consensus of cognitive analyses denies the likelihood of positive effects from most contact situations. Yet the research literature suggests that positive effects are more common than either the contact hypothesis or cognitive analyses predict. Why the contradiction? The basic reason is that learning about the outgroup is only one of several processes involved. Cognitive analyses are not so much wrong as they are incomplete. Other processes are also involved.

CHANGING BEHAVIOR Optimal intergroup contact acts as a benign form of behavior modification. Behavior change is often the precursor of attitude change. New situations require conforming to new expectations. If these expectations include acceptance of out-group members, this behavior has the potential to produce attitude change. We can resolve our dissonance between old prejudices and new behavior by revising our attitudes (Aronson & Patnoe 1997). This behavioral process also benefits from repeated contact, preferably in varied settings (Jackman & Crane 1986). Repetition makes intergroup encounters comfortable and "right." Repetition itself leads to liking (Zajonc 1968). Appropriate rewards for the new behavior enhances the positive effects further.

GENERATING AFFECTIVE TIES Emotion is critical in intergroup contact. Anxiety is common in initial encounters between groups, and it can spark negative reactions (Islam & Hewstone 1993; Stephan 1992; Stephan & Stephan 1985, 1989, 1992; Wilder 1993a,b). Such anxious, negative encounters can occur even without intergroup prejudice (Devine et al 1996). Continued contact generally reduces anxiety, though bad experiences can increase it.

Positive emotions aroused by optimal contact also can mediate intergroup contact effects. Empathy plays a role here. Reich & Purbhoo (1975) found that school contact improved cross-group role-taking ability among both majority and minority Canadian students. And empathy for a stigmatized outgroup member—a young woman with AIDS, a homeless man or a convicted murderer—can improve attitudes toward the whole outgroup (Batson et al 1997). Positive emotions aroused by intergroup friendship also can be pivotal. The Oliners (1988) found that non-Jews who risked their lives to save Jews during World War II reported more close friendships as children with other groups. Similarly, Rippl (1995) found friendship to be decisive in shaping contact effects between West and East Germans. These findings support earlier claims by Amir (1976) concerning the importance of intimacy in intergroup contact. The most extensive data on intergroup friendship derive from 1988 surveys in Western Europe (Pettigrew 1997a,b; Pettigrew & Meertens 1995). (For survey details, see Reif & Melish 1991; for a different, though consistent, analysis of these data, see Hamberger & Hewstone 1997). Over 3800 majority group respondents in seven probability

samples of France, Great Britain, the Netherlands, and West Germany were asked their attitudes toward major minority groups in their country and whether they had friends of another nationality, race, culture, religion, or social class. In all samples, Europeans with outgroup friends scored significantly lower on five prejudice measures even after controlling for seven variables. The largest effect occurred for a two-item measure of affective prejudice. Those with intergroup friends significantly more often reported having felt sympathy and admiration for the outgroup. Few studies in the contact literature have used affective dependent variables. When they have, similar results emerge (Wright et al 1997).

Figure 1 compares the paths between intergroup friends and affective prejudice. Note that living in an intergroup neighborhood makes it more likely that a European will have an outgroup friend (+.356). There is no direct relationship, however, between mixed neighborhoods and affective prejudice. This allows a test of the paths between friendship and affective prejudice (Bollen 1989, Heist 1975). As in other research (Herek & Capitanio 1996), the prejudiced avoid intergroup contact (-.137). But the path from friendship to reduced affective prejudice is significantly stronger (-.210), a finding consistent with that of Powers & Ellison (1995). In short, like prejudice, contact involves both cognition and affect.

INGROUP REAPPRAISAL Optimal intergroup contact provides insight about ingroups as well as outgroups. Ingroup norms and customs turn out not to be the only ways to manage the social world. This new perspective can reshape your view of your ingroup and lead to a less provincial view of outgroups in general (“deprovincialization”). In the European surveys, outgroup friendship related to significantly less “pride” in nationality even after education, age, and political conservatism are controlled (Pettigrew 1997c).

Part of this process involves having less contact with the ingroup as a result of more contact with the outgroup. Wilder & Thompson (1980) covaried contact with the ingroup and outgroup in a laboratory study. While it had no impact on ingroup ratings, less ingroup contact led to less bias toward the outgroup. This finding is consistent with meta-analytic results that show ingroup bias is positively related with ingroup salience (Mullen et al 1992).

Individual Differences Shape Contact Effects

Prior attitudes and experiences influence whether people seek or avoid intergroup contact, and what the effects of the contact will be. Figure 1 showed that prejudiced Europeans are less likely to have outgroup friends. Other characteristics also deter contact. Value differences shaped differential readiness for intergroup contact among both Israeli Arabs and Jews (Sagiv & Schwartz 1995). Cook (1984) found large individual differences in the effects of even optimal contact; 40% of his experimental subjects, compared with 12% of controls, evinced sweeping attitude changes. Yet other experimental subjects averaged little change.

High intergroup anxiety and threat also can impede both contact and its positive effects (Islam & Hewstone 1993; Stephan 1992; Stephan & Stephan 1985, 1989, 1992, 1996; Wilder 1993a,b; Wilder & Shapiro 1989). Such emotions often derive from no prior experience with the outgroup. Black and white high school students who had the most favorable earlier interracial experience were more positive toward the other race (Patchen 1982). Thus, intergroup contact and its effects are cumulative—we live what we learn. Braddock (1989) found that black graduates of segregated high schools were significantly less likely later to work with whites. Since jobs with white co-workers have better pay and promotions, this result helps to explain why black graduates of interracial schools do better in later life than those from segregated schools (Braddock 1989, Braddock et al 1984, Braddock & McPartland 1987).

Societies Shape Contact Effects

Situations are embedded in social institutions and societies. Thus, institutional and societal norms structure the form and effects of contact situations (Kinloch 1981, 1991). Consider intergroup strife in Northern Ireland and Quebec. These societal contexts severely limit all forms of intergroup contact. Moreover, they render the contact that does occur less than optimal. Implicit in Allport’s equal-status

condition is equivalent group power in the situation. This is difficult to achieve when a struggle over power fuels the larger intergroup conflict.

The meager equal-status contact between groups that takes place in such societies is typically subversive in character. In Northern Ireland, neighboring Catholic and Protestant farmers cooperate in their agricultural pursuits but remain apart in other activities (Harris 1972, Kirk 1993). Even conversations are circumscribed. In both Quebec and Northern Ireland, intergroup interaction focuses on local issues and avoids divisive group concerns (Taylor et al 1986, Trew 1986). It is at best constrained discussion, not the easy banter of friends.

Russell (1961) showed how societal norms of discrimination poison intergroup contact. She tested a racially mixed neighborhood at the height of South Africa's Apartheid policy of intense racial segregation. This rare area had 50% whites, 20% Coloureds, and 30% Indians. Even here, modest improvements emerged in white attitudes toward their neighbors of color. Yet the larger social context constrained these effects. The improved attitudes did not generalize to Coloureds and Indians as groups, and whites were defensive about their interracial contact. Some avoided it, and the exchange that took place was not reciprocal. Whites received neighborly aid and entered nonwhite homes far more than the reverse. Many whites rationalized their interracial behavior with the exploitative nature of the relationship. All were aware that the then stern South African norms punished equal-status interracial contact. Such norms erode true neighborliness.

Alternatively, when a society embraces intergroup harmony, equal-status contact between groups is no longer subversive. Normative support makes attainment of other optimal conditions far easier.

Above findings could be applied with reference to various castes in Indian context.

(c) What are the causes of domestic violence? How is 'belief in a just world' used to rationalized this violence?

TOPIC: *Rehabilitation Psychology*
SUBTOPIC: *Rehabilitation of victims of violence*
LEVEL: *Medium*
NATURE: *Fundamental - Applied*

REFERENCE:

Causes of Domestic Violence

There are many different theories as to the causes of domestic violence. These include psychological theories that consider personality traits and mental characteristics of the perpetrator, as well as social theories which consider external factors in the perpetrator's environment, such as family structure, stress, social learning. As with many phenomena regarding human experience, no single approach appears to cover all cases.

Whilst there are many theories regarding what causes one individual to act violently towards an intimate partner or family member there is also growing concern around apparent intergenerational cycles of domestic violence. In Australia where it has been identified that as many as 75% of all victims of domestic violence are children Domestic violence services such as Sunnykids are beginning to focus their attention on children who have been exposed to domestic violence.

Responses that focus on children suggest that experiences throughout life influence an individuals' propensity to engage in family violence (either as a victim or as a perpetrator). Researchers supporting this theory suggest it is useful to think of three sources of domestic violence: childhood socialization, previous experiences in couple relationships during adolescence, and levels of strain in a person's current life. People who observe their parents abusing each other, or who were themselves abused may incorporate abuse into their behavior within relationships that they establish as adults. (Kalmuss & Seltzer 1984)

Psychological

Psychological theories focus on personality traits and mental characteristics of the offender. Personality traits include sudden bursts of anger, poor impulse control, and poor self-esteem. Various theories suggest that psychopathology and other personality disorders are factors, and that abuse experienced as a child leads some people to be more violent as adults. Correlation has been found between juvenile delinquency and domestic violence in adulthood. Studies have found high incidence of psychopathy among abusers.

For instance, some research suggests that about 80% of both court-referred and self-referred men in these domestic violence studies exhibited diagnosable psychopathology, typically personality disorders. "The estimate of personality disorders in the general population would be more in the 15–20% range [...] As violence becomes more severe and chronic in the relationship, the likelihood of psychopathology in these men approaches 100%." Dutton has suggested a psychological profile of men who abuse their wives, arguing that they have borderline personalities that are developed early in life. However, these psychological theories are disputed: Gelles suggests that psychological theories are limited, and points out that other researchers have found that only 10% (or less) fit this psychological profile. He argues that social factors are important, while personality traits, mental illness, or psychopathy are lesser factors.

Jealousy

Many cases of domestic violence against women occur due to jealousy when one partner is either suspected of being unfaithful or is planning to leave the relationship. An evolutionary psychology explanation of such cases of domestic violence against a woman is that they represent male attempts to control female reproduction and ensure sexual exclusivity through violence or the threat of violence.

Behavioral

Behavioral theories draw on the work of behavior analysts. Applied behavior analysis uses the basic principles of learning theory to change behavior. Behavioral theories of domestic violence focus on the use of functional assessment with the goal of reducing episodes of violence to zero rates. This program leads to behavior therapy. Often by identifying the antecedents and consequences of violent action, the abusers can be taught self control. Recently more focus has been placed on prevention and a behavioral prevention theory.

Social theories

Looks at external factors in the offender's environment, such as family structure, stress, social learning, and includes rational choice theories.

Resource theory

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Resource theory was suggested by William Goode (1971). Women who are most dependent on the spouse for economic well being (e.g. homemakers/housewives, women with handicaps, the unemployed), and are the primary caregiver to their children, fear the increased financial burden if they leave their marriage. Dependency means that they have fewer options and few resources to help them cope with or change their spouse's behavior.

Couples that share power equally experience lower incidence of conflict, and when conflict does arise, are less likely to resort to violence. If one spouse desires control and power in the relationship, the spouse may resort to abuse. This may include coercion and threats, intimidation, emotional abuse, economic abuse, isolation, making light of the situation and blaming the spouse, using children (threatening to take them away), and behaving as "master of the castle".

Social stress

Stress may be increased when a person is living in a family situation, with increased pressures. Social stresses, due to inadequate finances or other such problems in a family may further increase tensions. Violence is not always caused by stress, but may be one way that some people respond to stress. Families and couples in poverty may be more likely to experience domestic violence, due to increased stress and conflicts about finances and other aspects. Some speculate that poverty may hinder a man's ability to live up to his idea of "successful manhood", thus he fears losing honor and respect. Theory suggests that when he is unable to economically support his wife, and maintain control, he may turn to misogyny, substance abuse, and crime as ways to express masculinity.

Social learning theory

Social learning theory suggests that people learn from observing and modeling after others' behavior. With positive reinforcement, the behavior continues. If one observes violent behavior, one is more likely to imitate it. If there are no negative consequences (e. g. victim accepts the violence, with submission), then the behavior will likely continue. Often, violence is transmitted from generation to generation in a cyclical manner.

Power and control

In abusive relationships, violence is posited to arise out of a need for power and control of one partner over the other. An abuser will use various tactics of abuse (e.g., physical, verbal, emotional, sexual or financial) in order to establish and maintain control over the partner.

Abusers' efforts to dominate their partners have been attributed to low self-esteem or feelings of inadequacy, unresolved childhood conflicts, the stress of poverty, hostility and resentment toward women (misogyny), hostility and resentment toward men (misandry), personality disorders, genetic tendencies and sociocultural influences, among other possible causative factors. Most authorities seem to agree that abusive personalities result from a combination of several factors, to varying degrees.

A causalist view of domestic violence is that it is a strategy to gain or maintain power and control over the victim. This view is in alignment with Bancroft's "cost-benefit" theory that abuse rewards the perpetrator in ways other than, or in addition to, simply exercising power over his or her target(s). He cites evidence in support of his argument that, in most cases, abusers are quite capable of exercising control over themselves, but choose not to do so for various reasons.

An alternative view is that abuse arises from powerlessness and externalizing/projecting this and attempting to exercise control of the victim. It is an attempt to 'gain or maintain power and control over the victim' but even in achieving this it cannot resolve the powerlessness driving it. Such behaviors have addictive aspects leading to a cycle of abuse or violence. Mutual cycles develop when each party attempts to resolve their own powerlessness in attempting to assert control.

Questions of power and control are integral to the widely utilized Duluth Domestic Abuse Intervention Project. They developed a "Power and Control Wheel" to illustrate this: it has power and control at the center, surrounded by spokes (techniques used), the titles of which include: coercion and threats, intimidation, emotional abuse, isolation, minimizing, denying and blaming, using children, economic abuse, and male privilege. The model attempts to address abuse by challenging the misuse of power by the perpetrator.

The power wheel model is not intended to assign personal responsibility, enhance respect for mutual purpose or assist victims and perpetrators in resolving their differences. Rather, it is an informational tool designed to help individuals understand the dynamics of power operating in abusive situations and identify various methods of abuse.

Critics of this model argue that it ignores research linking domestic violence to substance abuse and psychological problems. Some modern research into the patterns in DV has found that women are more likely to be physically abusive towards their partner in relationships in which only one partner is violent,

which draws the effectiveness of using concepts like male privilege to treat domestic violence into question; however, it may still be valid in studying severe abuse cases, which are mostly male perpetrated. However, modern research into predictors of injury from domestic violence finds that the strongest predictor of injury by domestic violence is participation in reciprocal domestic violence, and that this pattern of domestic violence is more often initiated by the female in the relationship.

Mental illness

Many psychiatric disorders are risk factors for domestic violence, including several personality disorders: all Cluster B PDs, (especially antisocial), paranoid and passive-aggressive. Bipolar disorder, schizophrenia, drug abuse, alcoholism and poor impulse control are also risk factors. It is estimated that at least one-third of all abusers have some type of mental illness.

Marital conflict disorder

VISION IAS

The American Psychiatric Association planning and research committees for the forthcoming DSM-5 (2013) have canvassed a series of new Relational disorders which include Marital Conflict Disorder Without Violence or Marital Abuse Disorder (Marital Conflict Disorder With Violence). Couples with marital disorders sometimes come to clinical attention because the couple recognize long-standing dissatisfaction with their marriage and come to the clinician on their own initiative or are referred by an astute health care professional. Secondly, there is serious violence in the marriage which is -"usually the husband battering the wife".

In these cases the emergency room or a legal authority often is the first to notify the clinician. Most importantly, marital violence "is a major risk factor for serious injury and even death and women in violent marriages are at much greater risk of being seriously injured or killed (National Advisory Council on Violence Against Women 2000)." The authors of this study add that "There is current considerable controversy over whether male-to-female marital violence is best regarded as a reflection of male psychopathology and control or whether there is an empirical base and clinical utility for conceptualizing these patterns as relational."

Recommendations for clinicians making a diagnosis of Marital Relational Disorder should include the assessment of actual or "potential" male violence as regularly as they assess the potential for suicide in depressed patients. Further, "clinicians should not relax their vigilance after a battered wife leaves her husband, because some data suggest that the period immediately following a marital separation is the period of greatest risk for the women. Many men will stalk and batter their wives in an effort to get them to return or punish them for leaving. Initial assessments of the potential for violence in a marriage can be supplemented by standardized interviews and questionnaires, which have been reliable and valid aids in exploring marital violence more systematically."

The authors conclude with what they call "very recent information" on the course of violent marriages which suggests that "over time a husband's battering may abate somewhat, but perhaps because he has successfully intimidated his wife. The risk of violence remains strong in a marriage in which it has been a feature in the past. Thus, treatment is essential here; the clinician cannot just wait and watch." The most urgent clinical priority is the protection of the wife because she is the one most frequently at risk, and clinicians must be aware that supporting assertiveness by a battered wife may lead to more beatings or even death.

Just-world hypothesis

The just-world hypothesis (or just-world fallacy) is the cognitive bias that human actions eventually yield morally fair and fitting consequences, so that, ultimately, noble actions are duly rewarded and evil actions are duly punished. In other words, the just-world hypothesis is the tendency to attribute consequences to, or expect consequences as the result of, an unspecified power that restores moral balance; the fallacy is that this implies (often unintentionally) the existence of such a power in terms of some cosmic force of justice, desert, stability, or order in the universe.

The fallacy popularly appears in the English language in various figures of speech, which often imply a negative reprisal of justice, such as: "You got what was coming to you," "What goes around comes around," and "You reap what you sow." This phenomenon of this fallacy has been widely studied by social psychologists since Melvin J. Lerner conducted seminal work on the belief in a just world in the early 1960s. Since that time, research has continued, examining the predictive capacity of the hypothesis in various situations and across cultures, and clarifying and expanding the theoretical understandings of just world beliefs.

Emergence

The phenomenon of belief in a just world has been observed and considered by many philosophers and social theorists. Psychologist Melvin Lerner's work made the just world hypothesis a focus of social psychological research.

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Melvin Lerner

Melvin Lerner was prompted to study justice beliefs and the just world hypothesis in the context of social psychological inquiry into negative social and societal interactions. Lerner saw his work as extending Stanley Milgram's work on obedience. He sought to answer the questions of how regimes that cause cruelty and suffering maintain popular support, and how people come to accept social norms and laws that produce misery and suffering.

Lerner's inquiry was influenced by repeatedly witnessing the tendency of observers to blame victims for their suffering. During his clinical training as a psychologist, he observed treatment of mentally ill persons by the health care practitioners with whom he worked. Though he knew them to be kindhearted, educated people, they blamed patients for their own suffering. He also describes his surprise at hearing his students derogate the poor, seemingly oblivious to the structural forces that contribute to poverty. In a study he was doing on rewards, he observed that when one of two men was chosen at random to receive a reward for a task, observers' evaluations were more positive for the man who had been randomly rewarded than for the man who did not receive a reward. Existing social psychological theories, including cognitive dissonance, could not fully explain these phenomena. The desire to understand the processes that caused these observed phenomena led Lerner to conduct his first experiments on what is now called the just world hypothesis.

Early evidence

In 1966, Lerner and his colleagues began a series of experiments that used shock paradigms to investigate observer responses to victimization. In the first of these experiments conducted at the University of Kansas, 72 female subjects were made to watch a confederate receiving electrical shocks under a variety of conditions. Initially, subjects were upset by observing the apparent suffering of the confederate. However, as the suffering continued and observers remained unable to intervene, the observers began to derogate the victim. Derogation was greater when the observed suffering from shock treatments was greater. However, under conditions in which subjects were told that the victim would receive compensation for her suffering, subjects did not derogate the victim. Lerner and colleagues replicated these findings in subsequent studies, as did other researchers.

Theory

To explain the findings of these studies, Lerner theorized the prevalence of the belief in a just world. A just world is one in which actions and conditions have predictable, appropriate consequences. These actions and conditions are typically individuals' behaviors or attributes. The specific conditions that correspond to certain consequences are socially determined by the norms and ideologies of a society. Lerner presents the belief in a just world as functional: it maintains the idea that one can impact the world in a predictable way. Belief in a just world functions as a sort of "contract" with the world regarding the consequences of behavior. This allows people to plan for the future and engage in effective, goal-driven behavior. Lerner

summarized his findings and his theoretical work in his 1980 monograph *The Belief in a Just World: A Fundamental Delusion*.

Lerner hypothesized that the belief in a just world is crucially important for people to maintain for their own well-being. However, people are confronted daily with evidence that the world is not just: people suffer without apparent cause. Lerner explained that people use strategies to eliminate threats to their belief in a just world. These strategies can be rational or irrational. Rational strategies include accepting the reality of injustice, trying to prevent injustice or provide restitution, and accepting one's own limitations. Non-rational strategies include denial or withdrawal, and reinterpretation of the event.

There are a few modes of reinterpretation that could make an event fit the belief in a just world. One can reinterpret the outcome, the cause, and/or the character of the victim. In the case of observing the injustice of the suffering of innocent others, one major way to rearrange the cognition of an event is to interpret the victim of suffering as deserving of that suffering. Specifically, observers can blame victims for their suffering on the basis of their behaviors and/or their characteristics. This would result in observers both derogating victims and blaming victims for their own suffering. Much psychological research on the belief in a just world has focused on these negative social phenomena of victim blaming and victim derogation in different contexts.

An additional effect of this thinking is that individuals experience less personal vulnerability because they do not believe they have done anything to deserve or cause negative outcomes. This is related to the self-serving bias observed by social psychologists.

Many researchers have interpreted just world beliefs as an example of causal attribution. In victim blaming, the causes of victimization are attributed to an individual rather than a situation. Thus, the consequences of belief in a just world may be related to or explained in terms of particular patterns of causal attribution.

Violence

Loss of the 'Just World' view. Most of us believe that what happens to us is a result of our behavior, i.e., "people get what they deserve", "If I am good to others they will be good to me". This view allows us to feel reasonably safe in the world as it lends an element of predictability to the future, and allows us to place faith and trust in the wider structure of existence. It also attributes meaning to our lives. (Interestingly, it is very common for this reason for many of us to attribute negative qualities to the victim in order to make sense of the world.) Victims of domestic violence also have to make sense of what has happened to them. If the victim is unable to attribute meaning to the event, their view of the world being a 'just world' is lost. For this reason it is common for victims of domestic violence to believe that they must be 'bad' or must in some way 'deserve' the violence. This in turn can lead to feelings of low self-esteem, guilt, anger and a variety of other emotional responses. Furthermore, victims can develop a style of thinking referred to as the 'abuse dichotomy'. Within this style is embedded the notion that any if anything bad happens it must be your fault (for being bad) and if anything good happens, then it must be down to someone else. This state can lead to a sense of helplessness in the victim and a sense that at any time something bad can happen, that it probably will and that there is nothing you can do to control it. This essentially means that the victim loses the connection between their own behavior and the outcome for them. Generally, victims prefer not to lose this view of the world and instead attribute any negative events to their own behavior.

Researchers have looked at how observers react to victims of rape and other violence. In a formative experiment on rape and belief in a just world by Linda Carli and colleagues, researchers gave two groups of subjects a narrative about interactions between a man and a woman. The description of the interaction was the same until the end; one group received a narrative that had a neutral ending and the other group received a narrative that ended with the man raping the woman. Subjects judged the rape ending as inevitable and blamed the woman in the narrative for the rape on the basis of her behavior, but not her characteristics. These findings have been replicated repeatedly, including using a rape ending and a 'happy ending' (a marriage proposal).

Other researchers have found a similar phenomenon for judgments of battered partners. One study found that observers' labels of blame of female victims of relationship violence increase with the intimacy of the relationship. Observers blamed the perpetrator only in the most significant case of violence, in which a male struck an acquaintance.

When a man engages in a long-term pattern of controlling, undermining, enslaving, belittling, restricting and entrapping his female partner – this is neither Just nor Fair.

The world is not Just when the woman's protests and attempts to stop the abuse fall on deaf ears. The world is not Just when the man responds by denying he's doing harm, minimizing the harm, or blaming the woman. The world is not Just when family, friends, colleagues, neighbors, legal and human service professionals condone the man's ongoing systematic campaign to control his partner. Many male perpetrators of intimate partner abuse do not get what they deserve. Many female victims do not get the justice they deserve.

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Many women try to make sense of their male partner's behaviors by assuming he must only be acting in Just and Fair ways. So, if she feels harmed by something he says or does she will let him know, discuss it with him, seek change on his part. But if he says he did nothing wrong, that it's all in her head, that she provoked it, or that it is her behaviors that are the problem, then she will go away and contemplate what it was in her own character or behavior that caused him to harm her.

Over time she will develop the belief that there's something wrong with her, that she's not good enough, that she's not worthy. If she believes in a Just World she will find it extremely difficult to believe her partner is as horrible as his behaviors seem. So she will blame herself and double her efforts to be the good wife he is wanting. After all most women I've ever met who experience being manipulated and controlled by their male partners spend years attempting to be good – knowing that being good is supposed to result in positive outcomes. So, she will put aside her suspicions that he's actually intentionally harming her.

If you experience confusion about how to behave in response to ongoing subtle abuse and control, and confusion about how you feel and the cause of those feelings this is so often linked with the Belief in a Just World. If you are a good girl, always wanting to be there for others you'll probably assume others have the same goal – that they want to be nice and caring to you. So you will be consistently shocked every time your partner (who is supposed to care about you) abuses, manipulates or controls you. And shocked when others abuse you.

(d) Explain the concept of 'team-cohesiveness' in the context of sports. How can teamwork be improved through the application of sports psychology?

TOPIC: *Sports Psychology*

SUBTOPIC: *Psychological Interventions in Improving Performance in Team Games*

LEVEL: *Easy*

NATURE: *Fundamental - Applied*

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REFERENCE:

Teamwork is a term that is used frequently and often unreflectively in sport and exercise settings. Although teamwork has been investigated in several sport-related sub-disciplines (Barker, 2007, in sport pedagogy; Shogan, 1999, in sport ethics, for example), it has only come to be defined as an academic construct through sustained analysis within the field of sport psychology. Sport psychologists have used the notion of team cohesion (Brawley & Paskevich, 1997; Carron, Widmeyer, & Brawley, 1997) to capture what happens in teams. In the first part of this paper, we adopt a discursive approach to examine and evaluate the sport psychological literature on cohesion. Sport psychologists however, have suggested that organizational research on teams and teamwork may provide additional understandings of sport-oriented teamwork. In the second part of this paper, we employ the same discursive approach to explore both theoretical and empirical research that relates to teams in organizations. In the final section of the paper,

we discuss the conceptual differences and similarities of the two disciplines and reflect on the potential gains organizational thinking might offer those working with sports teams.

Teamwork in Sports Teams: The Case of Cohesion

Sports teams are broadly defined within the sport psychological literature as a type of group with special characteristics (Hodge, 1995). Carron, for example, asserts that a team has "a collective identity, a sense of shared purpose, structured patterns of interaction, structured methods of communication, personal and task interdependence, and interpersonal attraction" (1988, p. 7). References to a 'singular' identity and purpose construct the team as a unified whole, an idea that is reinforced further by the terms 'structure' and 'interdependence'. The language has 'systems' connotations and proposes an understanding of teams as individual and distinct entities.

Within the discipline of sport psychology there is a general agreement on the core aspect of teamwork, with most researchers utilizing cohesion in their research. While not all sport theorists have employed the concept (Dunn & Holt, 2004; Fiore & Salas, 2006), the concept appears to have provided many sport psychologists with a valuable way of understanding what happens in teams (Bloom, Stevens, & Wickwire, 2003; Brawley, 1990; Brawley & Paskevich, 1997; Carron, Widmeyer, & Brawley, 1997; Heuzc, Sarrazin, Masiero, Raimbault, & Thomas, 2006; Mroczkowska, 2002; Paskevich, Estabrooks, Brawley, & Carron, 2001; Spink, 1995; Spink & Carron, 1992; Widmeyer, Brawley, & Carron, 1985). Cohesion is a "process which is reflected in the tendency for a group to stick together and remain united in pursuit of its goals" (Carron, 1982, p. 124). It is commonly divided into social cohesion, which reflects the degree to which members like each other, and task cohesion, which is the degree to which members of a team work together to achieve a common goal (Hodge, 1995). Cohesion happens 'between' team members and, as will become clearer, has an implicit link to the performance of the team, the greater the cohesion, the better the performance. In many respects, cohesion can be thought of as an adhesive. Teamwork as cohesion 'holds' team members together. One underlying assumption is that without cohesion, the team will fall apart and will be unable to complete its task.

Cohesion supposedly has causal relationships with a range of variables, such as group stability, role acceptance, and performance (Carron & Spink, 1993). Although not all commentators have agreed (Rovio, Eskola, Kozub, Duda, & Lintunen, 2009), many critics have proposed a positive causal relationship between cohesion and performance. Spink (1996, p. 277) for example, argued that cohesion is "generally assumed to be the critical intervening mechanism, through which team building enhances effectiveness" (emphasis added). The language points to the conjectural nature of the theoretical proposition. Such statements generally make up part of the rationale for examining the concept of cohesion. It is worth noting, however, that the rationale stems from an organizing logic where cohesion is already central. The cyclical nature of the argument is demonstrated by Prapavessis et al. (1996), who asserted that cohesion is an "ideal dependent variable" because it is "possibly the most important group property" (Prapavessis et al., 1996, p. 272).

Attempts to objectify cohesion and to measure it empirically in sport psychology have been met with limited success. Regardless, cohesion has been operationalized- the Group Environment Questionnaire (Carron et al., 1997; Eys, Carron, Bray, & Brawley, 2007) provides measures of cohesion, and Prapavessis et al. (1996) describe the questionnaire as a valid, reliable instrument. Metaphorically, the instrument measures the strength of the adhesive. It enables observers to gauge how well team members are sticking together socially and in pursuit of their goals. The instrument also allows interventions to be conducted since changes in teamwork can be observed and measured. In fact, instrumentation, empirical data and intervention can be seen to be conceptually dependent. As Prapavessis and his colleagues (1996) argue, cohesion is an ideal variable because an instrument exists to measure it. Even if their argument is once again cyclical, their comment underscores the point that ways of describing teamwork and ways of practicing it cannot be separated.

In contrast to this objective, scientific teamwork, Yukelson's (1997) research pointed to a more commonsensical, practice oriented understanding of teamwork. Indeed, this conception emerged from an investigation of athletes' and coaches' ways of understanding teams and team-

work. Here, athletes described teamwork as 'chemistry' where having the 'chemicals' to produce the desired reaction is a matter of chance. A volleyball player commented that "this year's team had a special chemistry both on and off the court that helped contribute to the success of the team" (Yukelson, 1997, p. 82). An ice hockey coach remarked that "as the season progressed, the chemistry of the team became real tight, we became more and more of a family" (Yukelson, 1997, p. 85). Similarly, Bloom et al. (2003) pointed out that many coaches emphasized that teamwork cannot be manipulated and often "just happened". McLean captures this 'everyday' understanding of teamwork when he states, Some coaches view this team chemistry as an indefinable process that describes the interaction of team members, and something that is outside the control of the coach. It is seen as the unpredictable result of the mixture of the personalities gathered together in the team. When the chemistry is not right the team struggles to prosper (1995, p. 420). Whereas Yukelson seemed to adopt the coaches' ways of seeing teamwork unproblematically, positing at one point that it "is important to keep the chemistry and spirit of the group together" (1997, p. 85), McLean (1995), sought to challenge the chemistry metaphor, arguing that it oversimplifies the situation. For McLean (1995), the notion of teamwork as chemistry, along with an unwillingness to rationalize teamwork presented a dilemma for sport psychologists in that it was inconsistent with the more accepted way of thinking about teamwork (cohesion). His final position however, appears to be that it is possible to understand teamwork in a variety of ways. He commented, By drawing together knowledge and wisdom from areas as diverse as corporate philosophies and functioning, family and childrearing practices, social psychology laboratories and sporting locker rooms, it becomes possible to identify themes that recur and appear to be associated with individual group success (McLean, 1995, p. 433). Here, McLean proposes an argument that we will discuss in the final section, that is, that there are many ways of theorizing teamwork.

Teamwork and conceptual borrowing

Perhaps as a consequence of a wider cultural trend, sport psychologists have recently turned to organization and management literature for alternative perspectives and inspiration on the themes of teams and teamwork. Theorists have cited a paucity of teams research within sports psychology to justify venturing beyond the boundaries of the discipline (Bloom et al., 2003; Eccles & Tenenbaum, 2004; Prapavcic et al., 1996). Often these academic forays have resulted in conceptual spoils. Hardy and Grace (1997) for example, borrowed a definition of teams, an outline of team functions, and a description of team effectiveness from the management literature. In a more recent paper on team coordination and communication in sport, Eccles and Tenenbaum (2004) made scarce reference to sport literature, instead relying on organizational literature to frame their study.

Other commentators have supported this development. Weinberg and McDermott (2002) compared sport and business perceptions of factors involved with success, analysing leaders' perceptions of leadership, cohesion and communication. They concluded that there is a "good deal of similarity between success in sport and business" (Weinberg & McDermott, 2002, p. 296). Similarly, Jones (2002) reflected on his personal transition from sport psychologist to business consultant. He argued that "the principles of elite performance in sport are easily transferable to the business context" (Jones, 2002, p. 268). Even when management literature has not been cited directly, loose conceptual links have been implied. Yukelson (1997, p. 73), for example, began a piece with a maxim from Henry Ford: "Coming together is a beginning, Keeping together is progress, Working together is success. While Yukelson (1997) implicitly associated sports teams with production line teams, it can be assumed that Ford's employees were working in entirely different circumstances to the team members in Yukelson's research.

Given a modest degree of similarity between the terminologies of the psychological disciplines, claims of commonalities are perhaps unsurprising. The thesis we will develop in the following two sections though, is that there are assumptive differences between how the fields have dealt with teams and teamwork. For this reason, a closer examination of the management literature on teams and teamwork is necessary.

Teams and work: An organizational perspective

In the last two decades, structural changes have occurred in the workplace (what Leonard & Freedman, 2000, refer to as 'corporate reengineering'). These changes have foregrounded teams in organizations and have led management theorists to invest significant resources into the study of teams (Gordon, 1992; Stout,

Salas, & Fowlkes, 1997; Sundstrom, 1999; Sundstrom, McIntyre, Halfhill, & Richards, 2000; Tcsluk & Mathieu, 1999; Webber & Klimoski, 2004; Wheelan, 2003). The practice of teams and the investigations that have accompanied this practice have constructed the use of teams largely as a management strategy. Within this framework, team members assume responsibility for work-related tasks and are self-directed rather than instructed by senior managers. Much of the "organizational research" - which we use to encompass research employing organizational psychology and management theory - has dealt with issues of effectiveness. Questions like: what makes teams effective? (Sundstrom, De Meuse, & Futrell, 1990); how does one make teams effective? (Klimoski & Zukin, 1999); and, how do teams capture their inherent effectiveness? (Katzenbach & Smith, 1993b) have dominated the research landscape. The preoccupation with 'effectiveness' (discussed in more detail below) is indicative of the field's broader aims. It also suggests by implication, that as a strategy teams are contentious, hence a desire to 'prove' that they are an effective management method. The two broad models of understanding between which investigators operate are: (1) that people work most effectively when they manage themselves; and (2) that people work most effectively when they are managed by others. This is not to say that researchers have investigated this second statement but this is an opposing assumption against which team research takes place.

Compared with sports psychology, organizational research contains a variety of ways of thinking about what happens in teams. Aspects of teamwork range from 'role identification' (Lembke & Wilson, 1998) to 'decision making' (Devine, Clayton, Philips, Dunford, & Meiner, 1999). Marks, Madueu, and Zaccaro (2001) alone devised ten ways that team members could display teamwork. Such definitions are generally expressed as task-type activities that are discrete and objective. Marks and her colleagues included 'processes' like 'goal specification' and 'conflict management', which they suggested represented the processes of teamwork.

Withstanding diversity in team definitions (Campion, Papper, & Medsker, 1996; Sundstrom et al., 1990), there exists a high level of 'community agreement' (adapted from Gergen, 2001) vis-a-vis what teamwork does. This relates to the effectiveness of teams. Probably influenced by the seminal work of social psychologist Ivan Steiner (1972) and thus oft-cited model, actual productivity = potential productivity - process losses, organizational psychologists have agreed that teamwork is concerned with process - it mediates the execution of work-related tasks. In this way, teamwork happens between people performing work acts. These mediation processes influence effectiveness, defined in terms of productivity or performance.

This input-output model is appreciably based on a mechanistic metaphor where people function like parts of the same machine. For each 'component' to articulate with other parts, it needs a 'lubricant'. This is teamwork. Simply having the lubricant reduces losses and results in the machine running smoothly and efficiently. This model of teamwork and efficiency is an interesting one since it assumes that losses automatically result from people interacting and equates teamwork with efficiency. Almost paradoxically, the assumption that teamwork - and teams in general - are inherently valuable can be seen in a number of texts. Savoie (1998) referred to the "power" of teams and Smolek, Hoffman and Moran (1999, p. 24) argued that teams are "more efficient and effective [than individuals]". According to this literature, team is a 'state' for which to strive. Katzenbach and Smith (1993a) began one piece with three anecdotes of successful business teams, suggesting that "such are the stories and the work of teams-real teams that perform, not amorphous groups that we call teams because we think the label is motivating and energizing" (Katzenbach & Smith, 1993a, p. ur). This research appears to both produce and be a product of the intuitive appeal of teams. While teamwork has been presented as inherently positive by some researchers, others have attempted to define it as an objective, independent variable that (possibly) has causal relationships with other variables (Buller & Bell, 1986; Cohen & Bailey, 1997; Gist, Locke, & Taylor, 1987; Guzzo & Dickson, 1996; Hackman, 1998; Marks, Zaccaro, & Matlueu, 2000; Mullen & Copper, 1994; Prussia & Kitucki, 1996). Yet these authors still work within a mechanically-based metaphor that (implicitly) defines teamwork as positive. Even though they posit that the 'lubricant' can be refined and that teamwork is variable and measureable, they still define teamwork at the outset, as processes that they believe will benefit the output of teams.

Like sport psychological investigations, organizational psychologists have favoured interventions as ways to measure possible consequences of manipulating teamwork (Bottger & Yetton, 1987; Cooke et al., 2003;

Ganster, Pepler, & Willian1s, 1991; Kacen & Rozovski, 1998; Marks et al., 2000; Offerman & Spiros, 2001; Stevens & Campion, 1999). Along with experimentalist approaches has been an attempt to represent teamwork in numeric form (Mullen, Salas, & DriskeU, 1998). This thinking is reflected in the tendency towards quantitative methods and attempts to 'count' teamwork in some way. Some researchers went so far as to calculate the monetary value of teamwork training. Fitz-enz (1994, p. 54) stated emphatically that "soft-skills training" can be "traced objectively and quantitatively to an organization's bottom line" Fitz-enz's comment draws attention to another counter-argument, that is, that teamwork training cannot be "objectively and quantitatively" measured. When one examines the types of activities that occur in the name of team building interventions, it is possible to see why such an argument might arise. Many team building interventions take place in outdoor settings, are based on experiential learning assumptions, and are described in personal or subjective language (Badger, Sadler Smith, & Michie, 1997). Ng (2001, p. 425) for example, asserted that participants benefit from a "personal self-discovery journey" McEvoy and Buller (1997, p. 215) suggested that "spiritual energies are tapped when participants relate to the larger whole and/or access inner wisdom that lies hidden beneath the surface" and Long (1987, p. 31) compared her encounter with an outdoor team building program with "stumbling onto magic" In most cases though, theorists have attempted the difficult task of merging the subjective, experiential frameworks of the programs with the scientific traditions of their discipline (Badger et al., 1997; Bronson, Gibson, Kichar, & Priest, 1992; Burke & CoUins, 1998; Crawford, 1988; Holman & McAvoy, 2003). In spite of efforts to merge the subjective with the objective, difficulties are evident within the comments of the researchers. Buller, Cragun and McEvoy (1991, p. 58) complained that "virtually no rigorous, empirical evidence exists regarding the effects of outdoor training programs" Burke and Collins (1998, p. 136) believed there was a "lack of both empirical evidence and theoretical perspectives to support theories related to the efficacy of the learning process and its transfer to the workplace" And Ibbetson and Newell (1998, p. 240) noted little "hard evidence" to support effectiveness.

Given the lack of agreement on a specific definition of teamwork and the almost infinite variation in performance variables, it is unsurprising that organization and management research has failed to reach any level of consensus with respect to 'the effects' of teamwork. Despite (or perhaps, because of) this lack of consensus, the association between teamwork and performance has proven persistent. These circumstances may have resulted in the discipline's appeal to those working with sports teams. The argument that we will make in the final part of this paper is that meaningful cross-fertilization of ideas can take place, but for this to happen, appreciation of these differences is essential. The following is an exposition of what we believe to be the key conceptual similarities and difference between the disciplines.

(e) Discuss the components of gender-sensitivity training. Indicate its importance in the context of management of workforce diversity.

TOPIC: *Psychology of Gender*
SUBTOPIC: *Issues of discrimination, Management of diversity*
LEVEL: *Easy*
NATURE: *Applied*

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REFERENCE:

Components of gender sensitive training

1. Define training objectives that reflect women's and men's needs, interests, and capabilities.
2. Build a team of good trainers who possess knowledge about the gender perspective related to their sector/training topic.
3. Consult both women and men to understand their needs and capacities.
4. Provide equal opportunity to participate for both women and men through affirmative action (or positive discrimination).
5. Use gender-sensitive participatory training methods.
6. Be aware of bias, culture, prejudices, and assumptions of both participants and trainers.
7. Make training schedules and arrangements flexible enough to suit women participants.
8. Create an enabling training environment for both women and men participants.

9. Consider gender differences and interests.
10. Use gender disaggregated data and experiences from both women and men.
11. Use gender sensitive language during the training.
12. Display pictures, diagrams, or illustrations that show both women and men as key players in the sector.
13. Define gender sensitive outputs and indicators for training follow up and monitoring purposes.

Importance of Gender Sensitivity Training in The Context of Management of Workforce Diversity

Positive Linear

According to the resource-based view, a firm can gain a sustained competitive advantage if it takes advantage of its valuable, rare, inimitable, and non-substitutable (VRIN) resources (Barney 1991). Workforce gender diversity is associated with resources that can provide a firm with a sustained competitive advantage. These resources include market insight, creativity and innovation, and improved problem-solving. Men's and women's different experiences (Nkomo & Cox 1996) may provide insights into the different needs of male and female customers. Further, men and women may have different cognitive abilities, such as men's proficiency in mathematics and women's proficiency in verbal and interpersonal skills (Hoffman 1965; Maccoby & Jacklin 1974). A mix of cognitive abilities in a gender diverse team may enhance the team's overall creativity and innovation. Moreover, a gender diverse team produces high quality decisions (Rogelberg & Rumery 1996).

The resources of market insight, creativity and innovation, and improved problem-solving may be considered VRIN. They are valuable, because they drive business growth (Robinson & Dechant 1997). They may also be considered rare (Oetinger 2001). These resources cannot be easily accomplished or copied by homogeneous organizations (Frink et al. 2003). Therefore, they are largely inimitable. It can also be argued that there are no readily-available substitutes for these resources. In sum, it is reasonable to conclude that workforce gender diversity in general can provide a firm with a sustained competitive advantage.

Empirical research supports the argument that a gender diverse workforce is positively linked to an organization's performance. McMillan-Capehart (2003) used the resource-based view of the firm to argue that gender and racial diversity can provide a firm with a competitive advantage. Of the author's 12 predictions, the study's results supported only the prediction of a positive relationship between organizational gender diversity and return on equity. Frink et al. (2003) conducted two organizational level empirical studies to examine the gender diversity-performance relationship, measuring performance differently in each study. The overall results supported Frink et al.'s argument that an organization's performance would be greatest when diversity is maximized.

Negative Linear

Self-categorization theory suggests that people categorize themselves into various social and psychological identity groups, such as intellectual, engineer, male, white, or Australian (Turner, Hogg, Oakes, Reicher & Wetherell 1987). Tajfel (1978: 63) defined social identity as 'that part of an individual's self-concept which derives from his knowledge of his membership of a social group (or groups) together with the value and emotional significance attached to that membership'. For instance, a categorization on the basis of sex would result in a psychological association with either the male social group or the female one.

Messick and Mackie (1989) noted that categorization based on race, gender, and age is common. A gender diverse workgroup may produce the psychological groups of male group-members and female group-members. Subsequently, the social comparison between male and female psychological groups triggers in-group out-group dynamics. As a result, gender diversity may produce negative group behavior, such as decreased communication (Kravitz 2003), role expectations based on stereotypes (Elsass & Graves 1997), a lack of cohesion (Triandis, Kurowski & Gelfand 1994) and cooperation (Chatman & Flynn 2001), and increased conflict among group members (Pelled 1996).

Organizational research based on social identity theory is relatively new compared to the long history of social identity theory research in social psychology (Kramer 1991; Nkomo & Cox 1996). However, empirical research supports the argument that gender diversity produces the group behavior predicted by self-categorization and social identity theories. For instance, based on social identity theory, Jehn, Northcraft and Neale (1999) argued that workgroup social diversity in the form of sex and age would be positively related to relationship conflict. The authors studied 92 workgroups from a household goods moving firm in the United States. The results suggested a positive association between workgroup social diversity and intra-group relationship conflict. Similarly, Alagna, Reddy and Collins (1982) found that students in mixed sex groups, compared to students in all male groups, reported more communication problems, greater unresolved interpersonal conflicts, more difficulty working together, more frequent changes in group membership, lower perceived cooperation, and higher perceived tension.

If a high level of gender diversity at the organizational level is reflected in gender-diverse workgroups then in-group out-group dynamics may result. These in-group out-group dynamics may lead to more relationship conflict (Jehn et al. 1999) and more communication problems and difficulty in working together (Alagna et al. 1982) than would occur in less gender-diverse workgroups. Moreover, these negative effects, suggested by social identity theory, should result in low individual and group performance (Richard, McMillan, Chadwick & Dwyer 2003). Consequently, low individual and group performance may aggregate to low organizational performance.

U-shaped Curvilinear

The above two competing predictions describe linear relationships between gender diversity and performance. The positive linear prediction suggests more diversity (high proportions of both genders) is better than less. In contrast, the negative linear prediction suggests that less diversity (high proportion of one gender) is better. The U-shaped relationship is derived from the integration of these two predictions. The U-shaped prediction is based on the argument that different group compositions are associated with different group dynamics (Blau 1977; Kanter 1977a, 1977b). Different levels of workgroup gender diversity may lead to different group dynamics that have 'subsequent impacts on psychological well-being, attitudes, and even job performance' (Pfeffer 1983: 304).

Kanter (1977a, 1977b) categorizes gender diverse groups based on the range of different proportions of men and women. We use Kanter's recommended ranges to differentiate low, moderate, and high levels of workforce gender diversity. First, a homogeneous workforce that comprises either all men or all women is referred to as a uniform workforce. Second, a workforce with gender composition within a range from homogeneity to 15/85 (regardless of who is in majority) is referred to as a skewed workforce. Such a workforce has a low level of gender diversity. Third, a workforce with gender composition within a range of 20/80 to 35/65 (regardless of who is in majority) can be referred to as a tilted workforce. The level of diversity in this workforce is moderate. Fourth, a workforce with gender composition within a range of 40/60 to 50/50 is referred to as a gender balanced workforce. The level of diversity in this workforce is high. Gender diversity is at its maximum when a workforce is equally divided between men and women (50/50).

A gender homogeneous workgroup lacks the basis for categorization into psychological gender groups. However, as gender diversity reaches a low level resulting in a skewed group (for example, seven men and one woman in a group of eight employees), the token woman will feel isolation and assimilation pressures (Kanter 1977a, 1977b). With an increased representation of women, gender diversity reaches a moderate level resulting in a tilted group (for example, six men and two women in that group of eight employees). The members of such a group may begin to categorize themselves into the psychological groups of male group-members and female group-members (Randel 2002). This categorization into psychological groups leads to in-group out-group dynamics that, in turn, may produce undesirable group behavior, such as decreased communication (Kravitz 2003) and increased conflict (Pelled 1996). With even higher levels of gender diversity, the workgroup would divide into male and female psychological groups of similar size (a balanced workgroup). This increases opportunities for males and females to interact with one another. The increased contact may weaken social identities and discourage the undesirable in-group out-group

dynamics. Therefore, gender balanced groups experience more job satisfaction than gender tilted groups (Fields & Blum 1997).

Moreover, positive group dynamics, such as improved problem-solving (Rogelberg & Rumery 1996), would start to emerge. The aggregated gender diversity-performance effects may result in a U-shaped organizational gender diversity-performance relationship, if the different levels of gender diversity in organizations are reflected in corresponding levels of gender-diverse workgroups. This means that a homogeneous and a gender balanced workforce are both associated with high performance, whereas a tilted workforce is associated with low performance. Unfortunately, there is a lack of research on the U-shaped diversity performance relationship at the organizational level. Richard, Barnett, Dwyer and Chadwick (2004) studied U-shaped relationships between diversity (gender and racial) and performance at the management level, but the results did not support the proposed main effect predictions. However, a U-shaped relationship between gender diversity in management and performance was observed in highly innovative organizations.

VISION IAS

6. Answer the following, each in not more than 400 words:

30x2=60

(a) What are the psychological components of advertising and marketing? Identify and discuss the relevant ethical considerations?

TOPIC: *Work Psychology and Organizational Behavior*

SUBTOPIC: *Advertising and Marketing*

LEVEL: *Easy*

NATURE: *Applied*

REFERENCE:

The Aspects Influencing Advertising Information

As V. Iljin (2000), D. Jokubauskas (2003) state, it is proven by the research of psychologists that the perception of advertising information is determined by a multitude of aspects. However, the psychological ones – cognitive, emotional and behavioral - play the most important role. The largest amount of information is perceived by seeing. Visual presentation of advertising is the simplest way of pertaining information, as to perceive visual information the human uses least energy. At least one visual aspect in the ad has to affect the customer subconsciously. This could be colour, an unusual shape or size of the first character, a large, attractive and full-colour photo or text design. Empty spaces, abstract images and drawings do not suit the ad. It is noticed that the more realistic illustration, the more efficient is the ad, as it is the thing directly affecting the customer. The presentation of advertising information and therefore a higher demand for merchandise will depend on the knowledge of the customer's psychology. This is the main goal of advertising. Cognition is related with how the human perceives advertising information. That is why an ad must distinguish the product advertised from the others, at the same time attract the customer's attention and maintain his/her interest. Finally, it should arouse the customer's motivation to acquire the product advertised.

It is obvious that advertising affects the customer by the cognitive aspect. Senses are one of the most important aspects of impact; it is the process of primary cognition. The main goal of advertising is to evoke the feeling, in other words, it demonstrates how the customer is going to feel after acquiring one or another product. According to D. Jokubauskas (2007), if the ad evokes the feelings not only directly related to it, but also additional (both positive and negative) ones, we can state that the advertiser was successful in distinguishing the merchandise and this will affect the customer's decision. Another important cognitive aspect is perception. The feelings are usually evoked subconsciously, while cognition is a conscious process. Viewing is the most influential in the process of advertising information perception and evaluation. Therefore, advertising has to correspond the principle of consistence, all of its aspects – title, text, illustration and logos - are closely related and determine the general impact of the ad. If the aspects and information are insufficient to formulate the main idea, ambiguities occur. Recognition plays an important role in the cognition process. Therefore, if the first ad of the product is graphic and logical, later it is enough

to repeat any of its aspects and the customer will reproduce the ad she/he has seen before. Visual presentation must meet several conditions: the structure of the ad must be precise and clear; the object advertised is the centre, therefore its shape, size and proximity are important; the most important is to have the product dominating and standing out in the background.

The contemporary customer selects information very carefully, as well as adverts that are interesting and attracts attention. The attention attracting ads are the following: the ones where the customers see what attracts or frightens them; when their attention is drawn as they already tend to start the process of choosing. The customer's attention will be drawn to and intensified if the advert information represents the user's interests (what the motivation and needs are).

Research has shown that an individual better memorizes the facts related to his/her job, future or interests. Useless information is memorized worse. Therefore, adverts directly related to the customers' interests and plans are more efficient (Cereška, 2004; Jokubauskas, 2007). This means that advertising information must be oriented towards the customer's needs and motifs, clarifying the psychological aspects determining the customer's behavior, also aim at attracting his/her attention and wish to purchase the products advertised. Generalized Model for Research of the Psychological Impact of Advertising According to Ph. Kotler (2003), there are four key psychological processes — motivation, perception, learning, and memory - fundamentally influencing the customer responses to marketing stimuli. D. Jokubauskas (2007) also attributes the cognitive aspects, i.e. senses, reasoning, language and perception, to the psychological impact of advertising, although the author does not present the hierarchy of these aspects. Therefore, based on the other authors' hierarchical division, the cognitive aspects could be divided as follows: firstly, the customer's attention is concentrated, then perception, cognition though the customer's emotions and different senses, reasoning take place and then follows the advert assimilation. In D. Dolak's (2007) model of the advertising stages impact Attention, Interest, Desire, Action (AIDA) are distinguished. The DAGMAR model distinguishes Awareness, Comprehension, Conviction, Action (Keith, 2006). All abovementioned models distinguish similar aspects occurring when the customer sees adverts (see Table 1).

Table 1: The Aspects of Psychological Impact of Advertising

The traditional conceptual model for creating any advertising or marketing communications message is the AIDA Model	DAGMAR Model (Association of National Advertisers)	Four key psychological processes (Ph. Kotler, 2007)	Cognitive aspects (D. Jokubauskas, 2007)
Attention	Awareness	Motivation	Attention
Interest	Comprehension	Perception	Perception
Desire	Conviction	Learning	Emotions, senses, reasoning, thoughts, language
Action	Action	Memory	Assimilation, recognition

Table 1 demonstrates that in the hierarchy of advertising impact the customer's attention dominates (AIDA; DAGMAR; Jokubauskas, 2007), which is achieved through an ad and recorded in consciousness. However, Ph. Kotler (2007) is of the opinion that in this hierarchy it is not the attention, but the customer's motivation that really matters. An individual has many needs at any given time. Some needs are biogenic; they arise from physiological states of tension such as hunger, thirst, and discomfort. Other needs are psychogenic; they arise from psychological states of tension such as the need for recognition, esteem, or belonging. A need becomes a motive when it is aroused to a sufficient level of intensity. At this stage the most important is that the ad is noticed and recorded the customer's consciousness. The following stage in the hierarchy of advertising needs is reaching the comprehension of and interest in the ad, i.e. comprehension of the object in the ad (why is this object special, etc.). Here the importance of Ph. Kotler's

(2007) hierarchy of advertising impact could be singled out. He states that perception depends not only on physical stimuli but also on the stimuli's relation to the surrounding field and on conditions within the individual. The key point is that perceptions can vary widely among individuals exposed to the same reality because of three perceptual processes: selective attention, selective distortion, and selective retention. People are exposed to many daily stimuli such as ads; most of these stimuli are screened out—a process called selective attention. The result is that marketers must work hard to attract customers' attention.

When the customer's attention is drawn and perception/interest takes place it is logical to reason that persuasion and eventually cognition and acceptance happen next. However, it is proposed that this acceptance, according to D. Jokubauskas (2007) should take place through the cognitive aspects – the customer's emotions, senses, reasoning, language and thoughts. Consequently, advertising information in this hierarchy means that the customer must also understand the use of the product advertised, that it is special and stands out among the others, and no doubt that what is being pertained in the ad is true and that the benefit of the product is truly important (just as the ad states). Finally, the final act is reached, which already is the final aim of the ad, when part of customers will buy the product (AIDA, DAGMAR). However, Ph. Kotler (2007) ir D. Jokubauskas (2007) state that the most important is not the act itself, but the information recorded in the memory, its assimilation and recognition in the future.

Consumerism at its most fundamental level is a decision-making process, and decisions are not made in a vacuum. Early psychological explanations of decision-making said that people make a rational choice based solely on the pros and cons of each alternative. After decades of research, newer theories recognize that it is not quite that simple: there are also automatic (or subconscious, if you will) and emotional processes at work. For example, take something the well-known case of the mere exposure effect - you are likely to prefer something more if you've seen it more often, even if you're not aware that you've seen it before (e.g., Zajonc, 1968). Why do people respond this way? Psychological research suggests that perceptual fluency is at the root of this phenomenon. The basic idea is that when you've seen something before, it is easier for your brain to recognize and process that object, and people like things that take less mental effort to process. So, if someone shows you a painting multiple times, but so quickly that you don't even remember seeing it, you will prefer this painting to others you haven't seen before. What does this mean for marketing? Increasing perceptual fluency of a product is one way to increase consumers' positive feelings toward your product, and therefore influence their purchasing choices.

Consider another example that highlights the importance of emotions in customer relations. Imagine that a customer calls with a service complaint. Something has gone wrong, and you need to fix it. How you deal with the complaint has important implications for the customer's loyalty to your company, which in turn influences whether or not that customer will stay with your company and recommend it to others. You know this intuitively, but what is really going on behind the scenes? A recent study shows that trust, positive emotions, and negative emotions play a significant role in consumer loyalty (DeWitt, Nguyen, & Marshall, 2008). More specifically, if the consumer believes that s/he was treated justly, then s/he will trust your company more and feel more positively toward your company. As a result of increased trust and positive emotions, the customer will feel more loyal to your company. If the customer believes that s/he was treated unjustly, then a decline in trust and an increase in negative emotions predict a drop in customer loyalty and increase the chances that the customer will cut ties with your company.

Psychology is put to many uses beyond the discipline. In marketing, these can be especially controversial. In 1957 Vance Packard's *Hidden Persuaders* described how the marketing industry used depth psychology and motivational research to manipulate the public. Chapters like 'The psycho-seduction of children' and 'Self-images for everybody' left no doubt about Packard's moral contempt for marketing's uses of psychological techniques. The public was duly appalled. Fifty years later, marketing's persuasive role is generally accepted as part and parcel of the neo-liberal economic agenda. Even so, residual suspicion of marketing's psychological influence remains, and not only from those repelled by the coercive strategies of big business. Marketing techniques are blamed for rising childhood obesity and alcohol misuse, not to mention cigarette-related disease, the decline in public manners and countless other social ills from avarice to anorexia. The subtext of this criticism is that marketing's effect is psychological because it influences people to do things that harm themselves and others.

Some suspicions about the psychological influence of marketing are unjustified. For example, many consumers express a belief in 'subliminal' advertising effects, though there is no evidence that promotions flashed on the TV screen for less than 1/16 of a second either occur (OfCom rules forbid them) or could be effective in directing behavior. Other criticisms are taken very seriously. For example, the UK Advertising Standards Authority recently banned a series of Smirnoff Vodka ads featuring a quirky character called Uri because, in their opinion, his 'disregard for authority and socially acceptable adult behavior' would make Uri a 'cult figure' with under 18s, breaching the revised code of practice on alcohol advertising. This kind of argument seems to rest on an implicit theory of social group influence.

In this article I want to offer a personal point of view on the uses of psychology in marketing. I feel that these are not necessarily shameless, spurious or sensational. In fact, I will suggest that the influence of psychology can enable a more thorough critical engagement with marketing practices.

The science of consumer control?

Many social scientists have little time for the instrumentalism and intellectual shallowness they see in management research. And marketing is, of course, guilty as charged. One particularly galling example is the way Abraham Maslow's hierarchy of needs is invoked in most standard marketing text books to imply that brand consumption is a natural and inevitable expression of human drives. These texts neglect to mention the humanist agenda which drove Maslow's work and made his hierarchy more suitable as a rationale for less, rather than more, consumption.

The way marketing has used psychology to beef up its claims has even attracted critical comment from some marketing academics themselves (e.g. O'Shaughnessy, 1997). Others have pursued a rigorously psychological research agenda in marketing (Foxall, 1997, 2000). There is a dedicated academic journal, *Psychology and Marketing* (published by Wiley), which pursues the cross-disciplinary agenda; and a few others such as the *Journal of Economic Psychology* (Elsevier). Nevertheless, it is fair to say that the bulk of published research in marketing makes little explicit use of psychological theory.

The nearest thing to an exception is advertising. Ad agencies have pursued an active interest in psychology since J.B Watson applied his behaviorist theories to a very successful career with J. Walter Thompson. Today, surveys and experiments are often used to 'copy test' audience recall or to measure attitudes in response to creative executions. The pseudoscience of 'psychographics' was invented on Madison Avenue. It's a technique of categorizing consumers according to their 'values and lifestyles', the better to exploit their deep motivations. Tests of physiological response to ads are not unknown, with ad-watching consumers wired in to tachistoscopes or psycho-galvanometers. There is currently a buzz around the idea of 'neuro-marketing', the use of MRI scanners to isolate activity in brain receptors on exposure to marketing stimuli.

Yet the general picture of the use of psychology in academic marketing is bleak. It tends to be invoked to present marketing as a (positivistic) science of consumer control. But, after over 100 years of research in marketing and consumer science, debate still rages on how, or if, advertising 'works'; failed products are as common as ever, and angry customers still throng 'customer service' departments. Most top-tier marketing and advertising journals look, at a glance, like light reading for physicists, with their elaborate cause-effect models and experimental reporting style. These articles claim to reflect the agenda of management, yet it is a remarkable manager indeed who has ever read one.

A different approach

Packard assumed that the 'hidden persuaders' were successful, and his legacy continues to this day. The latest craze for hugely expensive 'neuro-marketing' initiatives indicates the need corporates have to pursue a scientific agenda of consumer control. Yet for me, Packard's vision of marketing manipulation isn't plausible on an individual level. The science of consumer control simply isn't advanced enough to have such an effect. Perhaps research that looks inside our heads for marketing's effects only finds half the answer.

Perhaps it is work from outside the mainstream, deploying psychology in pursuit of a more critical agenda in marketing and consumer research, which should complete the picture. For example, in the 1980s a small but influential body of work began to challenge the dominant economic model of the 'rational' consumer by

adapting experiential, existential and humanistic psychology to explore consumer fantasies, hedonism and emotionality (Hirschman, 1986; Hirschman & Holbrook, 1982; Holbrook & Hirschman, 1982). Since then, other work has built on this 'interpretive turn' in marketing and consumer research (Holbrook & O'Shaughnessy, 1988) exploring, for example, consumer irrationality (Elliott, 1997) and the ways in which brands act as symbolic resources for the production of social identity (Elliott & Wattanasuwan, 1998).

My own uses of psychology in my research lean toward these traditions. While teaching business I studied Open University modules for my BPS conversion diploma. From this I learned Margi Wetherell and Jonathan Potter's discourse analysis (Potter & Wetherell, 1987). I used my take on it in my PhD research to look at the creative advertising process in top London advertising agencies (described in Hackley, 2000). I couldn't get to grips with previous research which positioned creativity as a set of traits and located it inside the head of one individual. It felt more intellectually satisfying to look at this in terms of the language and symbolism arising from an interactional context. After all, advertising tends to be collaborative rather than individual: creative partners working on a brief will still be influenced by the opinions of account planners, clients, senior executives, the consumers and others.

In recent years more discourse-based critical approaches have emerged in the marketing literature (e.g. Brownlie et al., 1999). I have drawn on the psychology of rhetoric and ideology (e.g. in Billig, 1987, 1991) to try to show how popular marketing texts themselves act as ideological conduits in the field (Hackley, 2003). I have also looked critically at the way ad agencies use qualitative research (Hackley, 2002). Work in this vein suggests that the influence of marketing lies not only in its ability to draw on massive resources to control consumers with behavioral science. It's also has a more subtle role as an ideological apparatus, normalizing expressive consumption and mobilized in the language and discourse of management education and marketing practice. In fact, I would suggest that marketing's influence is more powerfully explained by exploring its ideological character than by conducting experiments to see whether some people prefer blue socks or red ones.

Some current projects

Positivist approaches still dominate research in marketing but far more interesting, to me at least, are consumer culture-based studies which investigate the ways in which marketing practices frame our lives, goals and senses of identity. One of my PhD students, Norman Peng, is studying viewers' responses to political advertisements (singled out for criticism by Packard). Another, Amy Tiwsakul, has used depth interviews, focus groups and auto-ethnographies to explore young consumers' engagement with product placement on TV (Tiwsakul et al., 2005). This is the kind of marketing practice often described (inaccurately) as 'subliminal' because viewers are seldom consciously aware that a brand appearing in the script or scene of a TV show (or computer game, novel or movie) has been strategically placed for commercial ends. Indeed, cognitive research has suggested that people don't really notice placements. Brand recall and 'intention to purchase' scores after exposure tend to be very weak. But viewers feel that brands add realism and relevance and marketers are very keen to exploit this direct route into consumer experience (Hackley & Tiwsakul, 2006).

So what has our research approach revealed about how people engage with product placement? It transpires that young consumers draw on their knowledge of TV product placements as a resource in self-positioning discourses (Tiwsakul & Hackley, in press) in much the same way as they use conventional advertising (O'Donohoe, 1997; Ritson & Elliott, 1999). In other words, young consumers draw on advertising for cues about displaying and affirming their senses of identity. For example, Ritson and Elliott (1999) conducted an ethnographic study in British schools which revealed how important advertisements were to adolescents as conversational gambits. Talking about the funniest or cleverest ads was a way of displaying personal values and group membership. In this sense the ads a person thought were cool helped to define their social positioning.

This use of advertising is not necessarily connected to consumption of brands – rather, it is about the consumption of brand advertising. A discourse-inspired psychological approach reveals that advertisements are an important form of social communication quite apart from their role in selling stuff.

Our qualitative research has also suggested that placements within the dramatic context of a TV show resonate with young viewers' experience and can access episodic memory, kicking in when the viewer recreates the experience portrayed in the TV drama. For example, one respondent claimed that she recalled a product placement for the Dairy Queen ice cream parlour (a well-known brand in Asia) only when she walked past the store on her local high street. A lot of cognitive research in this field assumes that semantic memory holds the key to predicting consumer behavior – if a brand is recalled after exposure to a marketing stimulus, maybe it will be bought. No one has yet tried to test the extent to which the dramatic realism of entertainment programming creates cues for episodic recall, probably because it is hard to fit such a construct as episodic memory into the experimental paradigm.

The effect of product placement can also be partly explained through the ideological notion of 'normalization'. Placement effects may be partly a matter of recall, but more importantly, putting brands in entertainment normalizes them as inevitable accessories to everyday social life.

Another exciting project I am involved with that combines psychological investigation and marketing is called Branded Consumption and Identification: Young People and Alcohol. It is funded by the ESRC under the Identities and Social Action theme (www.identities.org.uk) and led by Chris Griffin, Professor of Psychology at the University of Bath. The project team has reviewed a vast range of alcohol brand marketing practices in the UK and is now well into the data-gathering phase with focus groups, depth interviews and fieldwork around the social life and drinking practices of young people in three UK regions. The project is topical, given the current moral panic about 'binge' drinking. Some of the criticism of alcohol marketing seems fuelled by the overtly sexualized and gendered advertisements that were seen before the recent regulatory clampdown.

Our initial readings of the data sets suggest that branded alcohol has a role in orienting and adding nuance to young people's discourses of 'going out'. The drinking stories of friendship and hi-jinks are often engaging and sometimes colorful ('eyeballing' and 'funneling' are two drinking games you won't see in polite salons). But, above all, they are social. Alcohol brands, along with clubs, music and fashion constitute a discursive landscape which young people seem to draw on in complex ways to perform social competence and accomplish identity positioning strategies. Sensational headlines mask a cultural phenomenon in which marketing is deeply implicated.

But, however amoral marketing practice may be, simple cause and effect cannot easily be assigned, and the moral high ground is already too crowded to accommodate all the marketing critics. Seen through a sociological social psychological lens, marketing wields a powerful influence within a richly symbolic interactional context. Marketed brands nuance the meaning of everyday interaction. For drama buffs, life is a stage: but for marketers, it's a product placement opportunity.

Ethical considerations in advertising and marketing

Marketing ethics is the area of applied ethics which deals with the moral principles behind the operation and regulation of marketing. Some areas of marketing ethics (ethics of advertising and promotion) overlap with media ethics.

Fundamental issues in the ethics of marketing

Frameworks of analysis for marketing ethics

Possible frameworks:

- Value-oriented framework, analyzing ethical problems on the basis of the values which they infringe (e.g. honesty, autonomy, privacy, transparency). An example of such an approach is the AMA Statement of Ethics.
- Stakeholder-oriented framework, analyzing ethical problems on the basis of whom they affect (e.g. consumers, competitors, society as a whole).

- Process-oriented framework, analyzing ethical problems in terms of the categories used by marketing specialists (e.g. research, price, promotion, placement).
- None of these frameworks allows, by itself, a convenient and complete categorization of the great variety of issues in marketing ethics.

Power-based analysis

Contrary to popular impressions, not all marketing is adversarial, and not all marketing is stacked in favour of the marketer. In marketing, the relationship between producer/consumer or buyer/seller can be adversarial or cooperative. For an example of cooperative marketing, see relationship marketing. If the marketing situation is adversarial, another dimension of difference emerges, describing the power balance between producer/consumer or buyer/seller. Power may be concentrated with the producer (caveat emptor), but factors such as over-supply or legislation can shift the power towards the consumer (caveat vendor). Identifying where the power in the relationship lies and whether the power balance is relevant at all are important to understanding the background to an ethical dilemma in marketing ethics.

Is marketing inherently evil?

A popularist anti-marketing stance commonly discussed on the blogosphere and popular literature is that any kind of marketing is inherently evil. The position is based on the argument that marketing necessarily commits at least one of three wrongs:

- Damaging personal autonomy. The victim of marketing in this case is the intended buyer whose right to self-determination is infringed.
- Causing harm to competitors. Excessively fierce competition and unethical marketing tactics are especially associated with saturated markets.
- Manipulating social values. The victim in this case is society as a whole, or the environment as well. The argument is that marketing promotes consumerism and waste. See also: affluenza, ethical consumerism, anti-consumerism.

Specific issues in marketing ethics

Market research

Ethical danger points in market research include:

- Invasion of privacy.
- Stereotyping.

Stereotyping occurs because any analysis of real populations needs to make approximations and place individuals into groups. However if conducted irresponsibly, stereotyping can lead to a variety of ethically undesirable results. In the American Marketing Association Statement of Ethics, stereotyping is countered by the obligation to show respect ("acknowledge the basic human dignity of all stakeholders").

Market audience

Ethical danger points include:

- Excluding potential customers from the market: selective marketing is used to discourage demand from undesirable market sectors or disenfranchise them altogether.
- Targeting the vulnerable (e.g. children, the elderly).

Examples of unethical market exclusion or selective marketing are past industry attitudes to the gay, ethnic minority and obese ("plus-size") markets. Contrary to the popular myth that ethics and profits do not mix, the tapping of these markets has proved highly profitable. For example, 20% of US clothing sales are now

plus-size. Another example is the selective marketing of health care, so that unprofitable sectors (i.e. the elderly) will not attempt to take benefits to which they are entitled. A further example of market exclusion is the pharmaceutical industry's exclusion of developing countries from AIDS drugs.

Examples of marketing which unethically targets the elderly include: living trusts, time share fraud, mass marketing fraud and others. The elderly hold a disproportionate amount of the world's wealth and are therefore the target of financial exploitation.

In the case of children, the main products are unhealthy food, fashion-ware and entertainment goods. Children are a lucrative market: "...children 12 and under spend more than \$11 billion of their own money and influence family spending decisions worth another \$165 billion", but are not capable of resisting or understanding marketing tactics at younger ages ("children don't understand persuasive intent until they are eight or nine years old"). At older ages competitive feelings towards other children are stronger than financial sense. The practice of extending children's marketing from television to the schoolground is also controversial (see marketing in schools).

Other vulnerable audiences include emerging markets in developing countries, where the public may not be sufficiently aware of skilled marketing ploys transferred from developed countries, and where, conversely, marketers may not be aware how excessively powerful their tactics may be. See Nestle infant milk formula scandal. Another vulnerable group are mentally unstable consumers. The definition of vulnerability is also problematic: for example, when should indebtedness be seen as a vulnerability and when should "cheap" loan providers be seen as loan sharks, unethically exploiting the economically disadvantaged?

Ethics in advertising and promotion

Content

Ethical pitfalls in advertising and promotional content include:

- Issues over truth and honesty. In the 1940s and 1950s, tobacco used to be advertised as promoting health. Today an advertiser who fails to tell the truth not only offends against morality but also against the law. However the law permits "puffery" (a legal term). The difference between mere puffery and fraud is a slippery slope: "The problem... is the slippery slope by which variations on puffery can descend fairly quickly to lies." See main article: false advertising.
- Issues with violence, sex and profanity. Sexual innuendo is a mainstay of advertising content (see sex in advertising), and yet is also regarded as a form of sexual harassment. Violence is an issue especially for children's advertising and advertising likely to be seen by children.
- Taste and controversy. The advertising of certain products may strongly offend some people while being in the interests of others. Examples include: feminine hygiene products, hemorrhoid and constipation medication. The advertising of condoms has become acceptable in the interests of AIDS-prevention, but are nevertheless seen by some as promoting promiscuity. Some companies have actually marketed themselves on the basis of controversial advertising - see Benetton. Sony has also frequently attracted criticism for unethical content (portrayals of Jesus which infuriated religious groups; racial innuendo in marketing black and white versions of its PSP product; graffiti adverts in major US cities).
- Negative advertising techniques, such as attack ads. In negative advertising, the advertiser highlights the disadvantages of competitor products rather than the advantages of their own. The methods are most familiar from the political sphere: see negative campaigning.

Delivery channels

Direct marketing is the most controversial of advertising channels, particularly when approaches are unsolicited. TV commercials and direct mail are common examples. Electronic spam and telemarketing push the borders of ethics and legality more strongly.

Shills and astroturfers are examples of ways for delivering a marketing message under the guise of independent product reviews and endorsements, or creating supposedly independent watchdog or review organisations. For example, fake reviews can be published on Amazon. Shills are primarily for message-delivery, but they can also be used to drive up prices in auctions, such as Ebay auctions.

Deceptive Advertising and Ethics

Another breach of marketing ethics has to do with the use of deceptive advertising. This form of advertising is not specific to one target market, and can sometimes go unnoticed by the public. There are a number of different ways in which deceptive marketing can be presented to consumers; one of these methods is accomplished through the use of humor. In a study conducted by Hassib Shabbir and Des Thwaites, 238 advertisements were assessed and 73.5% of them were found to have used deceptive marketing practices. Of those advertisements that were conducted deceptively, 74.5% of them used humor as a masking device in order to mislead potential customers. Part of what drives this study is the idea that humor provides an escape or relief from some kind of human constraint, and that some advertisers intend to take advantage of this by deceptively advertising a product that can potentially alleviate that constraint through humor. Through the study it was also found that all types of humor are used to deceive consumers, and that there are certain types of humor that are used when making certain deceptive claims.

It is important to understand that humor is not the only method that is used to deter consumer's minds from what a product actually offers. Before making important purchases, one should always conduct their own research in order to gain a better understanding of what it is they are investing in.

The use of ethics as a marketing tactic

Business ethics has been an increasing concern among larger companies, at least since the 1990s. Major corporations increasingly fear the damage to their image associated with press revelations of unethical practices. Marketers have been among the fastest to perceive the market's preference for ethical companies, often moving faster to take advantage of this shift in consumer taste. This results in the expropriation of ethics itself as a selling point or a component of a corporate image.

The Body Shop is an example of a company which marketed itself and its entire product range solely on an ethical message.

Greenwash is an example of a strategy used to make a company appear ethical when its unethical practices continue.

Liberation marketing is another strategy whereby a product can masquerade behind an image that appeals to a range of values, including ethical values related to lifestyle and anti-consumerism.

"Liberation marketing takes the old mass culture critique — consumerism as conformity — fully into account, acknowledges it, addresses it, and solves it. Liberation marketing imagines consumers breaking free from the old enforcers of order, tearing loose from the shackles with which capitalism has bound us, escaping the routine of bureaucracy and hierarchy, getting in touch with our true selves, and finally, finding authenticity, that holiest of consumer grails." (Thomas Frank)

Marketing strategy

The main theoretical issue here is the debate between free markets and regulated markets. In a truly free market, any participant can make or change the rules. However when new rules are invented which shift power too suddenly or too far, other participants may respond with accusations of unethical behavior, rather than modifying their own behavior to suit (which they might not be able to anyway). Most markets are not fully free: the real debate is as to the appropriate extent of regulation.

Case: California electricity crisis, which demonstrates how constant innovation of new marketing strategies by companies such as Enron outwitted the regulatory bodies and caused substantial harm to consumers and competitors.

Further issues in marketing ethics

Marketing ethics overlaps with environmental ethics in respect of waste problems associated with the packaging of products.

Some, such as members of the advocacy group No Free Lunch, have argued that marketing by pharmaceutical companies is negatively impacting physicians' prescribing practices, influencing them to prescribe the marketed drugs rather than others which may be cheaper or better for the patient.

Ethically thinking is responding to situations that deal with principles concerning human behavior in respect to the appropriateness and inappropriateness of certain communication and to the decency and indecency of the intention and results of such actions. In other words, ethics are distinctions between right and wrong. Businesses are confronted with ethical decision making every day, and whether employees decide to use ethics as a guiding force when conducting business is something that business leaders, such as managers, need to instill. Marketers are ethically responsible for what is marketed and the image that a product portrays. With that said, marketers need to understand what good ethics are and how to incorporate good ethics in various marketing campaigns to better reach a targeted audience and to gain trust from customers.

Marketing ethics, regardless of the product offered or the market targeted, sets the guidelines for which good marketing is practiced. When companies create high ethical standards upon which to approach marketing they are participating in ethical marketing. To market ethically and effectively one should be reminded that all marketing decisions and efforts are necessary to meet and suit the needs of customers, suppliers, and business partners. Ethical behavior should be enforced throughout company culture and through company practices.

(b) Explain the consequences of short-term and long-term exposure to noise. How does noise affect our social behavior? Cite the impact of crowding in this context.

TOPIC: *Application of Psychology to Environment and Related Fields*
SUBTOPIC: *Environmental Psychology-Effects of Noise, Pollution and Crowding*
LEVEL: *Medium*
NATURE: *Fundamental - Applied*

REFERENCE:

Noise health effects are the health consequences of elevated sound levels. Elevated workplace or other noise can cause hearing impairment, hypertension, ischemic heart disease, annoyance and sleep disturbance. Changes in the immune system and birth defects have been attributed to noise exposure.

Although some presbycusis may occur naturally with age, in many developed nations the cumulative impact of noise is sufficient to impair the hearing of a large fraction of the population over the course of a lifetime. Noise exposure has also been known to induce tinnitus, hypertension, vasoconstriction and other cardiovascular impacts.

Beyond these effects, elevated noise levels can create stress, increase workplace accident rates, and stimulate aggression and other anti-social behaviors. The most significant causes are vehicle and aircraft noise, prolonged exposure to loud music, and industrial noise. Road traffic causes almost 80% of the noise annoyances in Norway.

There may be psychological definitions of noise as well. Firecrackers may upset some animals or noise-traumatized individuals. The most common noise traumatized persons are those exposed to military conflicts, but often loud groups of people can trigger complaints and other behaviors about noise.

The social costs of traffic noise in EU22 are over €40 billion per year, and passenger cars and lorries (trucks) are responsible for bulk of costs. Traffic noise alone is harming the health of almost every third person in the WHO European Region. One in five Europeans is regularly exposed to sound levels at night that could significantly damage health.

Hearing loss

The mechanism of hearing loss arises from trauma to stereocilia of the cochlea, the principal fluid filled structure of the inner ear. The pinna combined with the middle ear amplifies sound pressure levels by a factor of twenty, so that extremely high sound pressure levels arrive in the cochlea, even from moderate atmospheric sound stimuli. Underlying pathology to the cochlea are reactive oxygen species, which play a significant role in noise-induced necrosis and apoptosis of the stereocilia. Exposure to high levels of noise have differing effects within a given population, and the involvement of reactive oxygen species suggests possible avenues to treat or prevent damage to hearing and related cellular structures.

The elevated sound levels cause trauma to cochlear structure in the inner ear, which gives rise to irreversible hearing loss. A very loud sound in a particular frequency range can damage the cochlea's hair cells that respond to that range thereby reducing the ear's ability to hear those frequencies in the future. However, loud noise in any frequency range has deleterious effects across the entire range of human hearing. The outer ear (visible portion of the human ear) combined with the middle ear amplifies sound levels by a factor of 20 when sound reaches the inner ear.

Age-related (presbycusis)

Hearing loss is somewhat inevitable with age. Though older males exposed to significant occupational noise demonstrate significantly reduced hearing sensitivity compared to non-exposed peers, differences in hearing sensitivity decrease with time and the two groups are indistinguishable by age 79.

Women exposed to occupational noise do not differ from their peers in hearing sensitivity, though they do hear better than their non-exposed male counterparts. Due to loud music and a generally noisy environment, young people in the United States have a rate of impaired hearing 2.5 times greater than their parents and grandparents, with an estimated 50 million individuals with impaired hearing estimated in 2050.

In Rosen's work on health effects and hearing loss, one of his findings derived from tracking Maaban tribesmen, who were insignificantly exposed to transportation or industrial noise. This population was systematically compared by cohort group to a typical U.S. population. The findings proved that aging is an almost insignificant cause of hearing loss, which instead is associated with chronic exposure to moderately high levels of environmental noise.

Cardiovascular effects

Noise has been associated with important cardiovascular health problems. In 1999, the World Health Organization concluded that the available evidence showed suggested a weak correlation between long-term noise exposure above 67-70 dB(A) and hypertension. More recent studies have suggested that noise levels of 50 dB(A) at night may also increase the risk of myocardial infarction by chronically elevating cortisol production.

Fairly typical roadway noise levels are sufficient to constrict arterial blood flow and lead to elevated blood pressure; in this case, it appears that a certain fraction of the population is more susceptible to vasoconstriction. This may result because annoyance from the sound causes elevated adrenaline levels trigger a narrowing of the blood vessels (vasoconstriction), or independently through medical stress

reactions. Other effects of high noise levels are increased frequency of headaches, fatigue, stomach ulcers and vertigo.

Stress

Research commissioned by Rockwool, a UK insulation manufacturer, reveals in the UK one third (33%) of victims of domestic disturbances claim loud parties have left them unable to sleep or made them stressed in the last two years. Around one in eleven (9%) of those affected by domestic disturbances claims it has left them continually disturbed and stressed. Over 1.8 million people claim noisy neighbours have made their life a misery and they cannot enjoy their own homes. The impact of noise on health is potentially a significant problem across the UK given over 17.5 million Britons (38%) have been disturbed by the inhabitants of neighbouring properties in the last two years. For almost one in ten (7%) Britons this is a regular occurrence.

The extent of the problem of noise pollution for public health is reinforced by figures collated by Rockwool from local authority responses to a Freedom of Information Act (FOI) request. This research reveals in the period April 2008 - 2009 UK councils received 315,838 complaints about noise pollution from private residences. This resulted in environmental health officers across the UK serving 8,069 noise abatement notices, or citations under the terms of the Anti-Social Behavior (Scotland) Act.

Westminster City Council has received more complaints per head of population than any other district in the UK with 9,814 grievances about noise, which equates to 42.32 complaints per thousand residents. Eight of the top 10 councils ranked by complaints per 1,000 residents are located in London.

Annoyance

Because some stressful effects depend on qualities of the sound other than its absolute decibel value, the annoyance associated with sound may need to be considered in regard to health effects. For example, noise from airports is typically perceived as more bothersome than noise from traffic of equal volume. Annoyance effects of noise are minimally affected by demographics, but fear of the noise source and sensitivity to noise both strongly affect the 'annoyance' of a noise. Even sound levels as low as 40 dB(A) (about as loud as a refrigerator or library) can generate noise complaints and the lower threshold for noise producing sleep disturbance is 45 dB(A) or lower.

Other factors that affect the 'annoyance level' of sound include beliefs about noise prevention and the importance of the noise source, and annoyance at the cause (i.e. non-noise related factors) of the noise. For instance, in an office setting, audible telephone conversations and discussions between co-workers were considered to be irritating, depending upon the contents of the conversations. Many of the interpretations of the level of annoyance and the relationship between noise levels and resulting health symptoms could be influenced by the quality of interpersonal relationships at the workplace, as well as the stress level generated by the work itself. Evidence regarding the impact of long-term noise versus recent changes in ongoing noise is equivocal on its impact on annoyance.

Estimates of sound annoyance typically rely on weighting filters, which consider some sound frequencies to be more important than others based on their presumed audibility to the human ear. The older dB(A) weighting filter described above is used widely in the U.S., but underestimates the impact of frequencies around 6000 Hz and at very low frequencies. The newer ITU-R 468 noise weighting filter is used more widely in Europe. The propagation of sound varies between environments; for example, low frequencies typically carry over longer distances. Therefore different filters, such as dB(B) and dB(C), may be recommended for specific situations.

Furthermore, studies have shown that neighborhood noise (consisting of noise from neighboring apartments, as well as noise within one's own apartment or home) can cause significant irritation and noise stress within people, due to the great deal of time people spend within their residences. This can result in an increased risk of depression and psychological disorders, migraines, and even emotional stress.

In the workplace, noise pollution is generally a problem once the noise level is greater than 55 dB(A). Selected studies show that approximately 35 to 40% of workers in office settings find noise levels from 55 to 60 dB(A) to be extremely irritating. The noise standard in Germany for mentally stressful tasks is set at 55 dB(A). However, if the noise source is continuous, the threshold level for tolerable noise levels amongst office workers actually becomes lower than 55 dB(A).

One important effect of noise is to make a person's speech less easy to hear. The human brain automatically compensates the production of speech for background noise in a process called the Lombard effect in which it becomes louder with more distinct syllables. But this cannot fully remove the problems of communication intelligibility made in noise.

Child physical development

The U.S. Environmental Protection Agency authored a pamphlet in 1978 that suggested a correlation between low-birthweight babies (using the World Health Organization definition of less than 2,500 g (~5.5 lb) and high sound levels, and also correlations in abnormally high rates of birth defects, where expectant mothers are exposed to elevated sound levels, such as typical airport environs. Specific birth abnormalities included harelip, cleft palate, and defects in the spine.

According to Lester W. Sontag of The Fels Research Institute (as presented in the same EPA study): "There is ample evidence that environment has a role in shaping the physique, behavior and function of animals, including man, from conception and not merely from birth. The fetus is capable of perceiving sounds and responding to them by motor activity and cardiac rate change." Noise exposure is deemed to be particularly pernicious when it occurs between 15 and 60 days after conception, when major internal organs and the central nervous system are formed.

Later developmental effects occur as vasoconstriction in the mother reduces blood flow and hence oxygen and nutrition to the fetus. Low birth weights and noise were also associated with lower levels of certain hormones in the mother, these hormones being thought to affect fetal growth and to be a good indicator of protein production. The difference between the hormone levels of pregnant mothers in noisy versus quiet areas increased as birth approached.

In a 2000 publication, a review of studies on birthweight and noise exposure note that while some older studies suggest that when women are exposed to >65 dB aircraft noise a small decrease in birthweight occurs, in a more recent study of 200 Taiwanese women including noise dosimetry measurements of individual noise exposure the authors found no significant association between noise exposure and birth weight after adjusting for relevant confounders, e.g. social class, maternal weight gain during pregnancy, etc.

Cognitive development

When young children are exposed to speech interference levels of noise on a regular basis (the actual volume of which varies depending on distance and loudness of the speaker), they may develop speech or reading difficulties, because auditory processing functions are compromised. Children continue to develop their speech perception abilities until they reach their teenage years. Evidence has shown that when children learn in noisier classrooms, they have a more difficult time understanding speech than those who learn in quieter settings.

In a study conducted by Cornell University in 1993, children exposed to noise in learning environments experienced trouble with word discrimination as well as various cognitive developmental delays. In particular the writing learning impairment known as dysgraphia is commonly associated with environmental stressors in the classroom. The effect of high noise levels on small children has been known to cause physical health damages as well. Children from noisy residences often possess a heart rate that is significantly higher (by 2 beats/min on average) than in children from quieter residences.

Effects of Noise on Social Behavior

Although psychologists have studied the relationship between noise and human performance for over half a century, it is only recently that there has been interest in the impact of noise on interpersonal behavior. The research relating noise to interpersonal behavior has dealt primarily with the relationship between the sound levels of distracting background sounds and one's sensitivity to others, especially one's willingness to give aid both during and immediately following noise exposure.

Helping Behavior

There is fairly consistent evidence that persons are less likely to offer aid when exposed to extraneous noise above 80 dB(A) than when in a relatively quiet environment. It is noteworthy that all of the studies on the effects of noise on helping have been concerned with relatively low-effort helping responses whose performance has little consequence for either the helper or the person in need. It is thus possible that more serious problems would elicit higher levels of helping in noisy as well as quiet settings. As discussed above, decreased helping in noise may be attributable to masking, a negative affective state induced by the noise, a desire to escape the noise as quickly as possible, noise distracting the subject from the helping situation, or a focusing of one's attention resulting in a neglect of the subtly expressed needs of others. It is likely that there is no unitary explanation for these effects. That is, the reason for relative insensitivity to others under noise may vary across studies with one or more of the proposed mechanisms operating in each situation. Research that defines the situations under which each of these mechanisms operate would help clarify the role of noise in interfering with interpersonal behavior.

Aggression

Evidence on the relationship between noise and aggression is sparse but consistent. Existing laboratory studies clearly indicate that while loud noise itself is not sufficient to enhance aggressive behavior, noise will increase aggression in those who are already predisposed to aggress by having been angered or placed in the presence of an aggressive model. Studies indicate that aversive noise can facilitate post-noise aggression, and that this aggression is not solely a function of irritability produced by noise, but is also dependent upon some form of aggressive instigation. A third study by Siegel and Steele (1979) also suggests that noise may cause people to distort and over-simplify complex social relationships. In sum, although there is some evidence that short-term exposure to high intensity noise influences interpersonal judgments, the evidence is mixed. Hopefully, further research will help clarify the role of noise in such decisions. Although there has not been a consistent effort to focus on any social behavior other than helping and interpersonal judgments, there are a number of naturalistic studies that suggest that exposure to high-intensity noise may affect a wide range of interpersonal behaviors. For example, in a field study designed to assess the impact of a highway to be constructed near a college campus, Ward and Suedfeld (1973) found that noise affected a variety of group processes. In their study, 18 students volunteered to live in a college dormitory for 1 week. During this week, one-third of the students were exposed to the usual ambient noise levels of 40-50 dB, one-third were subjected to traffic noise at 63-66 dB, while the remaining third were exposed to 67-70 dB traffic noise. The noise was broadcast over loudspeakers outside the dormitories. From careful observation of their daily structured activities it was found that subjects exposed to the high noise spent the most time in the assigned group discussions where consensus was the assigned objective, and spoke faster than the other two groups. During these discussions the high-noise group also expressed more disagreement relative to agreement, showed more tension, exhibited more uncertainty by repeatedly asking for other people's opinions, and were more inclined towards irrelevant dramatization than the other groups.

Although the authors attributed the negative impact of noise on group discussions to the 'heightened negative affect in the high sound level conditions', they reported no difference between noise and quiet conditions in physiological arousal as measured by heart rate. The authors' explanation for the increased discussion time and speech rate was that it might have been necessary in order to transmit information in the speech-masking noise of the traffic. Damon (1977) studied the effects of traffic noise on a residential housing project in a lower-income neighborhood of Boston. The layout of the project was such that noise intensities varied from normal urban levels of 70 dB(A) around the interior buildings, to very high levels (averaging 80 dB(A) during the day-time) around units at the periphery of the project which were exposed

to heavy traffic. Residents in the noisy area were arrested more often, were less likely to take care of their entry ways, and were more likely to be truant and absent from school than their quieter area counterparts.

Numbers of clinic visits were no different for noisy or quiet area residents. These associations, of course, do not imply that the noise caused the increase in arrests and other measures. Unfortunately, differences between the noisy and quiet areas in family size, density, and age suggest some fairly salient alternative causal hypotheses.

Bragdon (1971) has noted that persons living in aircraft overflight areas are reluctant to visit others, or even talk on the 'phone, due to their expectation that aircraft overflights will inhibit casual conversation. People may find the noise outside too aversive to spend any time there. Alternatively, the noise may cause a negative affective state resulting in a decrease in their desire to interact with others; finally, the noise may cause people to focus on their own problems, ignoring other people altogether.

In sum, there is evidence that increases in ambient sound levels are associated with decreases in various forms of interpersonal sensitivity. This interference has been attributed to a variety of mechanisms including, among others, masking, increased arousal, information overload, and shifts in mood. Unfortunately, since the reviewed studies generally employed rather unsophisticated measures of the sonic environment, it is difficult to make any definitive statements about a dose threshold for these effects. The desire for privacy has been proposed as an important determinant of negative stress reactions to sound. In general, privacy is viewed as the freedom to decide on the social activity in which one participates (Klausner, 1971, p 130). Even unwanted passive interactions, such as hearing or being heard by others, are viewed as invasions of privacy that can result in increased annoyance and distress.

It is a common assumption in the psychological stress literature that unpredictable stressors are more stressing than predictable ones. In terms of Lazarus' (1966) model of the stress appraisal process, unpredictable sound would be evaluated as a greater threat than predictable sound because it is more difficult to develop strategies to cope adequately with unpredictable than predictable sound.

Studies of the effects of noise on performance support the view that the predictability of the sound moderates sound-behavior relationships. For example, subjects working on simultaneous tracking and digit-recall tasks show performance degradation on a secondary task (digital-recall) under unpredictable noise but not under predictable noise (Finkelman and Glass, 1970). When compared with predictable noise, unpredictable noise also results in greater variability of performance across subjects in paper-and pencil tasks (Sanders, 1961), and a reduction in complex psychomotor performance (Eschenbrenner, 1971).

A number of recent papers have emphasized that feelings of control over one's environment are central in determining the effects of a stressor on behavior and health (e.g. Averill, 1973; Cohen et al., 1979; Glass and Singer, 1972). It is important to note that control theorists often attribute stress to one's lack of control. That is, the physical stressor's role in the process is to elicit these feelings of helplessness. This is an important distinction, for it suggests that reactions attributable to perceived losses of personal control should be similar for a wide variety of stressors. Cognitive control has been implicated as a central determinant of the impact of noise on both behavior and health. For example, the adverse post-stress effects that follow loud, unpredictable noise are substantially reduced if the subjects believe they have control over the termination of the noise (Glass and Singer, 1972; see review by Cohen, 1980b). Increased control over high-intensity noise also results in an initially lower level of physiological response. Moreover, studies of the learned helplessness phenomenon, in which subjects are administered escapable or inescapable bursts of high-intensity sound, similarly indicate that post-stimulation deterioration of task performance occurs only after inescapable sound exposure (e.g. Hirota, 1974; Krantz et al., 1974). Two studies mentioned earlier (Donnerstien & Wilson, 1976; Sherrod and Downs, 1974) also provided subjects with the perception of control over termination of loud noise. The reader should recall that despite the fact that subjects did not actually terminate the noise, the feeling that they possessed such control ameliorated post-noise deficits.

Attribution processes have also been proposed as important determinants of one's response to a potential stressor. For example, one may view perceived noise in terms of Schachter's theory of emotion (Schachter,

1964; Schachter and Singer, 1962). According to this approach, one perceives a sound as noise only when a non-specific state of arousal is attributed to the sound (cf. work on crowding by Keating, 1979, and by Worchel and Teddlie, 1976). Both factors—arousal and the interpretation of the physical arousal as being due to sound—are necessary. An interesting twist of this theory is that the state of arousal may not actually be caused by intrusive sound; it will, however, be experienced as noise if, even mistakenly, it is attributed to the sound. Unfortunately, there are no existing studies demonstrating that attributing arousal actually caused by another source to sound causes noise effects. There is suggestive evidence, however, that the effects of other arousing stimuli can be lessened or eliminated when noise is provided as an alternative cause. That is, evidence exists that noise may be sometimes blamed for arousal caused by other sources. For example, Harris and Huang (1973) report less help for a woman in pain when loud noise is presented while viewing the woman. Presumably, the subjects were less upset by the woman's suffering when they could misattribute their arousal to the noise. Moreover, as noted earlier, noise can increase aggression in angered persons (Donnerstein and Wilson, 1976; Konecni, 1975); presumably because noise-induced arousal is misattributed to anger. Thus, noise may have an impact on social behavior when arousal, from other sources, is misattributed to the noise and when arousal from noise is misattributed to other sources.

Attitudes about The Stressor and its Source

The community noise literature suggests that one's attitudes about a stressor, the purpose it is serving, and those responsible for it, are important mediators of stress response. These data could be viewed as support for any of the approaches presented so far, and provide strong support for the argument that the meaning of a sound is a central determinant of its effects. Although social surveys often report a positive relationship between noise intensity and the average level of felt annoyance, intensity alone seldom explains more than one-quarter of the variance in individual annoyance reactions (el. McKenel, 1973). The major determinants of annoyance, often explaining over half of the variance, are the respondents' attitudes and beliefs about the noise source. A summary of the community noise literature (Borsky, 1969, 1980) suggests that annoyance is heightened when: (a) the noise is perceived as unnecessary; (b) those responsible for the noise are perceived as unconcerned about the exposed population's welfare; (c) the respondent dislikes other aspects of the environment; (d) the respondent believes that noise is harmful to health; or (e) the noise is associated with fear. This list is abstracted from several social surveys, and the operative factors affecting annoyance reactions vary from one study to another. Nevertheless, attitudes and expectancies concerning the sound are consistently more important determinants of individual annoyance than the acoustic properties of the sound.

Expectancies

One's beliefs and expectancies about effects of noise are also important determinants of the effects of high-intensity sound on behavior. In an early study, Mech (1953) showed that the effects of noise on performance could be altered by providing subjects with different pre-test expectancies about the 'usual' effects of noise on work efficiency. The group of subjects expecting detrimental effects did in fact show loss, whereas those expecting improvement improved."

7. Answer the following in about 250 words:

20x3=60

(a) Explain the psychosocial consequences of being a part of socially disadvantaged groups especially with reference to self-concept, identity, motivation and achievement. Give examples from Indian context.

TOPIC: *Application of Psychology to disadvantaged groups*
SUBTOPIC: *The concepts of disadvantaged, deprivation*
LEVEL: *Medium*
NATURE: *Fundamental - Applied*

REFERENCE:

Social psychologists have long been interested in the self-esteem consequences of being a member of a devalued social group. George Herbert Mead (1934) initially suggested that our self-appraisals depend on how other people see us. Given that members of devalued groups are more likely to experience negative responses from others—because of their group membership—compared with mainstream group members, self-esteem processes between these two groups have been closely examined. To account for how targets of prejudice maintain their self-esteem, Crocker and Major (1989) suggested that attributing negative outcomes to prejudice might be self-protective among those who are devalued and discriminated against. Specifically, they argued that an attribution for a negative outcome that points to another person's prejudice as the cause of one's poor outcome should be considered an external cause. For this reason, attributing a negative outcome to something outside the self should be self-protective.

In fact, these theorists speculated that because an attribution to prejudice is a sufficiently self-protective explanation for poor outcomes that it “may not only be used in response to negative evaluations or outcomes that do, in fact, stem from prejudice against the stigmatized group, but also in response to negative outcomes that do not stem from prejudice” (Crocker & Major, 1989, p. 612). This implies that there could be a self-esteem protection motivation that encourages attributions to prejudice among devalued group members. Yet there is overwhelming correlational evidence that the more disadvantaged group members perceive discrimination against their group, the worse their well-being. Therefore, negative outcomes that are seen as stemming from stable factors such as one's group membership are not predicting positive self-esteem. Such relationships between perceived discrimination and negative well-being have been obtained among members of different social groups, including women (Schmitt et al., 2002), black Americans (Branscombe, Schmitt, & Harvey, 1999), homosexuals (Herek, Gillis, & Cogan, 1999), Jewish Canadians (Dion & Earn, 1975), and people who are overweight (Crocker, Cornwell, & Major, 1993). Let's consider the evidence that experimental research has generated concerning these dual propositions: (1) that attributions to prejudice are external attributions and can therefore discount internal causes for negative outcomes, and (2) that attributions to prejudice for a specific negative outcome protect the well-being of devalued group members.

Should our group memberships be considered truly external to the self? As this chapter has already revealed, our social identities as members of a group can be an important aspect of the self. Use of Kelley's “covariation principle” (see Chapter 3) suggests that when something about the self (group membership) covaries with an outcome (discrimination), the attribution made will have a substantial internal component. That is, people will conclude that it is both something about me (my group membership) and something about the other's prejudice that causes discriminatory outcomes. To illustrate the previously unidentified internal component of attributions to prejudice, Schmitt and Branscombe (2002b) compared this attribution with a situation in which a clear external attribution for the same exclusionary outcome was plausible. These researchers had participants think about a situation in which a professor refused their request to let them into a course that required the professor's permission in order for them to enroll. This exclusion could be due to different reasons that would have differing implications for how the person would feel. By varying information about the professor and who was or was not let in the desired class, prejudice or an exclusively external cause for the participant's rejection was made plausible. In the “prejudice plausible” condition, participants learned that the professor had a reputation for being hostile toward their gender and that only members of the other gender were admitted to the class. In the “everyone excluded” condition, participants learned that the professor had a reputation of being hostile toward all students and that no one was given the special permission that was needed to be admitted. To what did the students attribute their failure to be admitted to the class? In the prejudice condition, they perceived the cause of their rejection as both due to something about the professor and due to something about themselves. Only when everyone was excluded was the internal attributional component (e.g., something about me) essentially absent. The finding that the self is implicated when a prejudice attribution is made (e.g., one's group membership is a part of the self, so internality is high), compared with when an attribution that does not involve prejudice is made, was subsequently replicated (Major, Kaiser, & McCoy, 2003).

Given that we know that attributions to prejudice have a substantial internal component (i.e., the self at the group level), we can ask whether they are likely to be self-protective. That is, if attributions to prejudice are not external explanations, and instead reflect something that is internal and stable, attributions to prejudice

may not protect self-esteem by discounting the self's role in causing the negative outcome. Indeed, Schmitt and Branscombe (2002b) found that, for women, making an attribution to the professor's prejudice against women harmed their well-being, compared with when everyone was excluded and the exclusion could not be attributed to prejudice. Using the same experimental materials involving the professor who refuses a student admittance to a course, Major, Kaiser, & McCoy (2003) found that there is an even worse attribution that can be made than either an attribution to prejudice or the professor's refusal to admit anyone. When the professor viewed the participant as uniquely stupid and, for this reason, the participant was the only person who was excluded from the class (i.e., all others who asked were admitted), this situation caused the participants' feelings about the self to be most negative.

The conclusions drawn about the emotional consequences of perceiving one's negative outcomes as stemming from prejudice against one's group clearly depend on the attribution to which it is compared. When negative outcomes are attributed to prejudice, this reflects an internal and relatively stable cause for disadvantaged group members. When compared with another important internal and stable feature of the self, such as one's lack of intelligence, an attribution to prejudice might be self-protective. To the extent that the other internal explanation is relevant to more situations or outcomes (is even more pervasive; Major, Kaiser, & McCoy, 2003), making that attribution could cause greater harm to well-being than attributing the outcome to prejudice. On the other hand, when compared with an actual external attribution, such as the professor's generally negative disposition (something that is not related to the participant's self at all), then attributions to prejudice are relatively harmful for well-being (Schmitt & Branscombe, 2002b). As Figure 5.16 illustrates, attributions for the same unfavorable outcome can be differentiated along a continuum in terms of the extent to which they have negative implications for psychological well-being. The worst possibility is when the outcome is attributed to an internal and stable factor that is likely to apply to many situations (e.g., being uniquely unintelligent for a college student). The next, slightly better attribution, for it is unlikely to be applicable across quite as many situations, is an attribution to prejudice. Making an attribution to prejudice that is seen as infrequent or isolated will be even better for psychological well-being. True external attributions, which could come in many different forms (e.g., professor is a jerk, having a bad day, bad luck), are most likely to be protective of the attributor's self and well-being.

An attribution to prejudice can reflect pervasive discriminatory circumstances, or it can be perceived as reflecting a rare or unusual instance. In effect, for any given experience, an attribution to prejudice could be seen as reflecting wider social circumstances or could be seen as an encounter with a lone bigot. Schmitt, Branscombe, and Postmes (2003) illustrated the importance of the perceived pervasiveness of prejudice for psychological well-being in women. Participants believed that they were taking part in a study concerning job interviewing skills and that one of the twenty male business people involved in the study would give them feedback. Each participant received the identical negative feedback from the interviewer. However, while waiting for their interviewing feedback, the experimenter ostensibly confided to the participant either that (1) "your interviewer is a real jerk and seems to give everyone a negative evaluation" (the nonsexist external attribution); (2) "your particular interviewer is really sexist and gives the women negative evaluations, but is positive toward the men" (the lone sexist); or (3) "all

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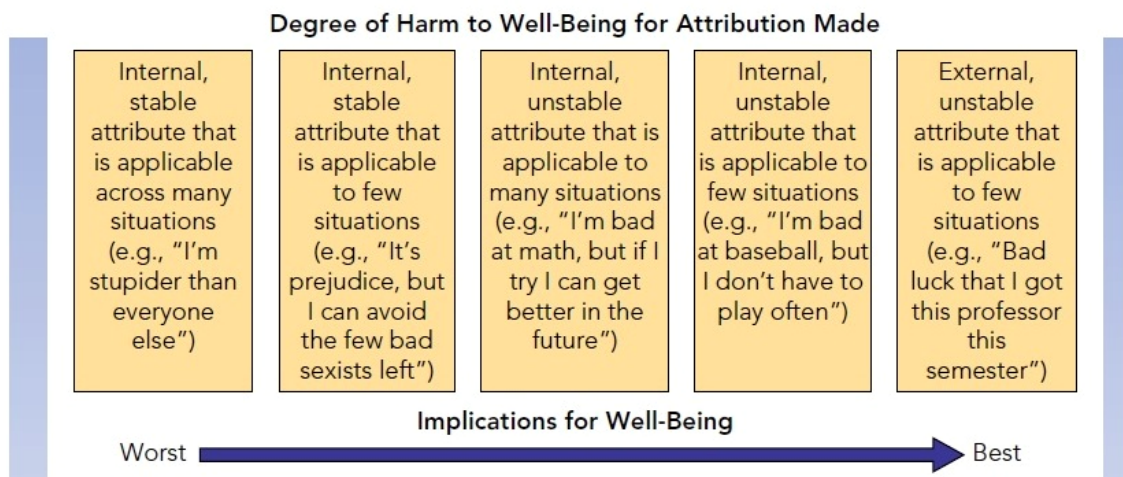


Figure 5.16 ■ Attributions for an Outcome Differ in How Harmful They Are for Well-Being

As this figure illustrates, the worst attribution a person can make for well-being is that there is something unique about themselves that is stable and applicable to many situations. The best attribution—for well-being—will be that the outcome is due entirely to something external that is unstable and is one that is unlikely to be encountered in many situations.

The Self as Target of Prejudice

of the interviewers, including yours, are really sexist" (pervasive sexism). Both feelings of self-esteem based on their gender and overall positive mood worsened when the prejudicial outcome was seen as also likely to occur in other situations (prejudice was seen as pervasive across the twenty interviewers), compared with either when prejudice could be seen as limited to the lone sexist or when a prejudice attribution was not made at all. When discrimination was seen as isolated, self-esteem and mood did not differ from when a "nonsexist jerk" delivered the negative feedback. Thus, all attributions to prejudice are not equal. What is fundamentally important for how an event is coped with and whether psychological well-being will be harmed by the experience or not is perceptions of how likely it is that such discriminatory treatment will be encountered in the future.

Cognitive Consequences: Performance Deficits

Perceived prejudice can not only affect psychological well-being, but also can interfere with our ability to learn and acquire new skills. Several studies have found that when people fear that others will discover their devalued group membership, as might be the case for concealable stigmas (i.e., think of gays and lesbians in the military), this fear can negatively affect people's ability to learn (Frible, Blackstone, & Scherbaum, 1990; Lord & Saenz, 1985). When we are in a position in which we feel we need to hide our identity and worry about how others might perceive us, it can be rather distracting. Studies measuring attention allocation reveal that when such distractions weigh on disadvantaged group members, their cognitive abilities are impaired and performance suffers. What is considered a valued versus devalued social identity can be culture specific. Therefore, cognitive deficits stemming from concerns about a given social identity might only be present when it is an identity that is devalued by the larger culture, but not when the identity is esteemed in the larger culture. Levy and Langer (1994) provided evidence that this is the case for cognitive tasks involving memory. Specifically, the photos in Figure 5.17 reveal that, in the United States, the elderly are negatively stereotyped in terms of poor memory ability, while in China, the elderly are a revered social category. When these researchers compared young and older adults in the United States and China, they found that the older U.S. citizens did show deficits in memory, while in China

this was not the case. Apparently, these differences stemmed from the fact that in the United States, being elderly is a negative aspect of identity, while in China, the opposite is true.

Behavioral Consequences: Stereotype Threat

Stereotype threat occurs when people believe they might be judged in light of a negative stereotype about their social identity or that they may inadvertently act in some way to confirm the stereotype of their group (Steele, 1997). When people value their ability in a certain domain (e.g., math), but it is one in which their group is stereotyped as performing poorly (e.g., women), stereotype threat may occur. When those who are vulnerable to stereotype threat are reminded in some overt or subtle way that the stereotype might apply to them, performance in that domain may be undermined.

Stereotype threat effects seem to be fairly difficult to control. For example, simply telling women before they take a math test that men do better on math than women do (Spencer, Steele, & Quinn, 1999) or having African Americans indicate their race before taking a difficult verbal test (Steele & Aronson, 1995) is sufficient to evoke stereotype threat and hurt their performance. Indeed, because women are negatively stereotyped as being worse at math than men, women tend to perform more poorly when they simply take a difficult math test in the presence of men, whereas they tend to perform better when the same test is taken in the presence of other women only (Inzlicht & Ben-Zeev, 2000). It is worth noting that these decrements in performance occur *only* with respect to stereotype relevant dimensions—it is not all types of performances that are harmed. Thus, women are vulnerable on math, but African Americans are vulnerable on tests of verbal ability. Precisely because such stereotype threat effects have been quite difficult to eliminate, investigators have considered the response options that are available to devalued group members when they are in settings in which they experience stereotype threat. One option that has been suggested is disidentification with the domain (Steele, Spencer, & Aronson, 2002). That is, people could try to distance themselves from domains in which they are stereotypically vulnerable. Such an option, though, is likely to be rather problematic for people who strongly value performing well in a given domain to begin with. In this research, the women who are selected are strongly concerned about doing well in math; likewise, African Americans who are selected are keen to do well in occupations requiring strong verbal skills. Another option that might be used in a stereotype threat situation is to attempt to distance the self from the group identity as a whole. That is, women could decrease how much they identify with their gender group, or African Americans might do the same with their race. However, this option also comes with long-term risks—minority group identification is known to be important for psychological well-being (Postmes & Branscombe, 2002).

Current research has revealed a third option that is available to those subjected to stereotype threat conditions. People who are vulnerable to stereotype threat can maintain their overall level of identification with their group, and distance themselves only from the stereotypic dimensions that represent a threat to their performance in a particular valued domain. Consider the dilemma of women who have taken a lot of math classes and who perceive math to be an important aspect of their self-concept. They also value their identity as women. When they then find themselves exposed to information that suggests there are reliable sex differences in math ability, with men doing better than women, these women do indeed experience threat. How then do they manage to cope with such threat, *without* simultaneously distancing from either the domain or their group as a whole? One possibility is suggested by social psychologists, Pronin, Steele, and Ross (2004), who found that high math-identified women distanced themselves only from gender stereotypic dimensions that are deemed to be incompatible with math success (e.g., leaving work to raise children, being flirtatious) but did not do so for gender stereotypic dimensions deemed to be irrelevant to math success (e.g., being empathic, being fashion conscious). Disidentification from such aspects of their gender group occurred only in the stereotype threat condition but not when it was absent, suggesting it was a motivated process designed to alleviate the threat experienced.

Why do stereotype threat-based performance decrements occur? Some researchers suggest that anxiety is evoked in women, blacks, and Latinos when their group membership is portrayed as predictive of poor performance (Osborne, 2001). As a result of such anxiety, their actual performance on the relevant test is disrupted. If this is the case, when stress-based anxiety is prevented, as occurs among women who use

humor as a coping strategy in stereotype threat situations, then performance decrements may be avoided (Ford et al., 2004).

Some studies have, however, failed to find increased self-reported anxiety among stigmatized group members in stereotype threat conditions (Aronson et al., 1999). This could be because members of stigmatized groups are reluctant to admit their feelings of anxiety in conditions in which they realize they will be compared with dominant group members, or it may be that they do not actually realize they are feeling anxious or aroused and so cannot accurately report those feelings.

Recent research that examines nonverbal measures of anxiety has revealed that anxiety can play a crucial role in stereotype threat effects. Although measures of self-reported anxiety have frequently failed to reveal the important role of anxiety, nonverbal measures of anxiety illustrate clearly the role that anxiety plays in stereotype threat effects. In a clever test of the hypothesis that anxiety does cause stereotype threat performance deficits, Bosson, Haymovitz, and Pinel (2004) first either reminded or did not remind gay and straight participants of their category membership before videotaping their interactions with young children in a nursery school. Participants were reminded of their sexual orientation by asking them to indicate their sexual orientation on a form just before they interacted with the children. After this subtle reminder that their group is stereotyped as one that is dangerous to children, the gay participants' childcare skills (as rated by judges blind to the hypotheses and procedure) suffered compared with when they were not so reminded of their category membership and its associated stereotype. This same group membership reminder had no effect on the straight participants because there is no such stereotype of danger to children. Consequently, straight participants were not at risk of potentially confirming a negative stereotype in the performance situation they faced. Was increased anxiety in the gay men the cause of the reduction in their rated childcare skills? On standard self-report measures of anxiety and evaluation apprehension, the answer would seem to be "no"—Bosson, Haymovitz, and Pinel (2004) did not obtain differences in these self-reports as a function of either sexual orientation or stereotype threat condition. Importantly, however, independent judges of nonverbal anxiety—as indicated by various behaviors pointing to discomfort during the interaction with the children—were affected by sexual orientation and stereotype threat. Among the gay men who were reminded of their category membership, their anxiety was discernible in their nonverbal behavior, compared with the gay men who were not experiencing stereotype threat. Although the gay men experiencing stereotype threat did not rate themselves as more anxious than those not experiencing stereotype threat, they were visibly more fidgety, they averted their eyes, and otherwise exhibited signs of discomfort. This nonverbally exhibited anxiety disrupted their interactions with the children. However, among heterosexual men, reminders of their category membership tended to result in fewer nonverbal symptoms of anxiety, compared with when their category was not made salient.

Is it only for groups that are historically devalued in the culture as a whole that stereotype threat effects have been observed? No, definitely not. Such effects occur with men who are not a devalued group as a whole, but who are stereotyped as being less emotional than women (Leyens, et al., 2000). When men were reminded of the stereotype concerning their emotional deficits, their performance on a task requiring them to identify emotions suffered. In an even more dramatic way, Stone and colleagues (1999) illustrated a similar point. They found that stereotype threat effects can occur among dominant group members as long as the implied comparison is based on dimensions on which their group is perceived less favorably. In their research, white men who were being compared with black men performed more poorly on an athletic performance task when they believed it reflected natural athletic ability. The reverse occurred when white men believed the exact same task reflected sports intelligence, which is a dimension on which white men expect to excel, as compared with black men. Likewise, although there is no stereotype that whites perform poorly on math, when they are threatened by a potentially negative comparison to Asians, who are stereotyped as performing better than whites in this domain, whites show math performance deficiencies (Aronson et al., 1999). Thus, the comparative context matters greatly for stereotype threat effects, and these effects are not limited to members of historically disadvantaged groups. Stereotype threat effects illustrate the importance of group membership for the experience of psychological threat, and how this can easily disrupt performance.

India specific examples can be added from the psychosocial composition of various disadvantaged groups e.g. lower castes, religious minorities, gender discrimination, disabled groups, economically disadvantaged etc.

(b) Distinguish between prejudice and discrimination. Explain the variables moderating the manifestation of prejudice into overt behavior.

TOPIC: *Psychological problems of social integration*

SUBTOPIC: *Nature and manifestation of prejudice*

LEVEL: *Medium*

NATURE: *Fundamental - Applied*

REFERENCE:

The Relation between Prejudice and Discrimination

As we noted earlier, when asked what causes interpersonal discrimination, most people would probably reply "prejudice." If that were the case, one would expect to find a strong correlation between people's prejudiced attitudes and their propensity to engage in discriminatory behavior. However, when John Dovidio and his colleagues (Dovidio, Brigham, Johnson, & Gaertner, 1996) reviewed the results of 23 studies of the prejudice-discrimination relationship, they found an average of correlation of $r = .32$. A meta-analysis of 60 studies found a similar correlation of $r = .36$, but also found a stronger relationship between prejudice and the intention to discriminate, $r = .45$ (Schütz & Six, 1996). That is, the relationship between prejudice and what people say they will do is stronger than the relationship between prejudice and what they actually do. Even when researchers find fairly high correlations between prejudice and discrimination, about 30 percent of the participants in those studies exhibited behavior that was inconsistent with their attitudes (Duckitt, 1994). Although results such as these might seem discouraging, they are, in fact, consistent with the results of research on the relationship between attitudes and behavior in general. For example, Stephen Kraus (1995) found an average correlation of $r = .38$ between attitudes and behavior across a wide variety of domains. As William Graziano and his colleagues note (Graziano, Bruce, Sheese, & Tobin, 2007), it is one thing to express negative attitudes toward a social group, but another thing to actually discriminate against someone. Hence, "the lake of prejudice is wider and deeper than the smaller pool of discrimination, even if the former feeds the latter" (p. 572). As it turns out, prejudice is related to discrimination (see Eagly & Chaiken, 1998), but the relationship is not a simple one: A number of factors influence the strength of this attitude-behavior relationship including personal stereotypes, attitude-behavior correspondence, and perceived social support for the attitude. Personal Stereotypes. Recall from Chapter 3 that stereotypes can exist at two levels. Social stereotypes are characteristics of groups that most people in a society agree on and personal stereotypes are individuals' beliefs about group characteristics. Personal stereotypes usually overlap with social stereotypes, but some of their content may be different. Similarly, people recognize the social norms about prejudice toward particular groups, but may not personally agree with those norms. Replicating the results shown in Table 10.1, William Graziano and colleagues (2007) found that people recognized that there are social norms which determine whether prejudice toward particular groups is acceptable or unacceptable. However, they also reported that people personally found it even more acceptable to discriminate against groups such as rapists and terrorists—those groups for which society approves prejudice.

Prejudiced people also are more likely to discriminate against those outgroup members who fit their personal stereotype than against those who do not. In a study of this process, Shawna Ramsey and her colleagues (Ramsey, Lord, Wallace, & Pugh, 1994) assessed college students' personal stereotypes of former mental patients. Several weeks later, the students read about a former mental patient who either closely matched their personal stereotype or who was very different from their stereotype but matched other students' stereotype. For example, some students stereotyped former mental patients in terms of schizophrenic symptoms whereas others stereotyped them in terms of depressive symptoms. The students then chose from a list of activities those they would be willing to engage in with the former mental patient, such as showing the person the university library or taking the person to a party. For students who read about a person who fit their personal stereotype, Ramsey and her colleagues found a correlation of $r = .43$

between attitudes toward former mental patients and the number of activities in which they were willing to engage. For students who read about a person who did not fit their personal stereotype, the correlation was only $r = -.07$.

Attitude-behavior Correspondence

The term attitude-behavior correspondence refers to how well an attitude matches, as it were, the behavior it is supposed to be associated with. A higher degree of correspondence results in a higher attitude-behavior correlation. One type of correspondence that is important to the prejudice-discrimination relationship is the degree to which people can control either their responses on the attitude measure or the behavior being measured. Dovidio and his colleagues (1996) noted that explicit paper-and-pencil measures of prejudice assess controllable responses: People can think about how they want to respond and carefully choose their responses, so social desirability response bias can affect their answers; however, implicit attitude measures assess relatively uncontrollable attitudes, so there is less opportunity for social desirability response bias to affect responses (see Chapter 2). Similarly, some behaviors, such as the content of what a person says, are controllable and so can be affected by a social desirability response bias, whereas other behaviors, such as many nonverbal behaviors, are more automatic and difficult to control and so are less likely to be influenced by a social desirability response bias. Drawing on the correspondence principle, Dovidio and his colleagues proposed that scores on controllable measures of prejudice should be correlated with controllable behaviors but not with automatic behaviors and that scores on implicit measures of prejudice should be correlated with automatic behaviors but not with controllable behaviors.

John Dovidio, Kerry Kawakami, and Samuel Gaertner (2002) tested this hypothesis in a study in which White college students completed explicit and implicit measures of prejudice. The participants then discussed several race-neutral topics, such as what personal belongings were most useful to bring to college, with a Black student confederate who played the role of another research participant. The interactions were videotaped, and raters later coded the White students' behaviors for the friendliness of their (automatic) nonverbal behaviors and for the friendliness of what they said (controllable behavior). The researchers found that, as they had expected, implicit prejudice correlated with nonverbal friendliness but not with verbal friendliness and explicit prejudice correlated with verbal friendliness but not with nonverbal friendliness. Similarly, Denise Sekaquaptewa and her colleagues (Sekaquaptewa, Espinoza, Thompson, Vargas, & von Hippel, 2003) found that an implicit measure of prejudice was related to White students' tendency to ask a Black student stereotypic rather than non-stereotypic questions from a list provided by the researchers. Because students were unaware that the questions varied in how stereotypic they were, this was considered an implicit behavioral measure.

Attitude-behavior correspondence also can be assessed by the degree to which people's general attitudes toward a social group match behaviors toward a specific group member. For example, Michael Olson and Russell Fazio (2007) studied whether White students' implicit attitudes toward Blacks in general corresponded to their attitudes toward a specific Black person. They reasoned that when these attitudes were similar—that is, if a White student had positive attitudes toward Blacks, in general, and also liked a specific Black person—the speaker's nonverbal responses should indicate little discomfort. However, if this same White student disliked the specific Black person, it would be evident in nonverbal behaviors, such as self-touching and speech interruptions. Results supported their hypothesis; regardless of whether implicit attitudes toward Blacks were positive or negative, when reactions to a specific Black person differed from those implicit attitudes, nonverbal "leakage" occurred. Hence, even non-prejudiced people can appear prejudiced if they dislike a specific person.

Perceived Social Support

The term perceived social support refers to the extent to which people believe that others share their attitudes and opinions. Generally, attitudes for which people perceive more social support are more closely related to their behavior than attitudes for which they perceive less social support. For example, Gretchen Sechrist and Charles Stangor (2001) pretested White college students' level of racial prejudice and selected those with high or low scores for participation in a study conducted several weeks later. As part of the study, participants learned that either 81 percent of the students at their university agreed with their racial

attitudes (high social support condition) or that 19 percent agreed with them (low social support condition). The researchers then used what is known as the waiting room ploy to assess discrimination: The research apparatus "malfunctioned" and the experimenter asked the participant to wait in the hallway, where seven chairs were lined up in a row, with a female African American student seated in the chair next to the door to the laboratory. Discrimination was assessed by how many chairs away from the Black student the participant sat. Not surprisingly, the students who had scored low on prejudice sat closer to the Black student than those who had scored high, an average of 2 seats versus 3.9 seats away. In addition, perceived social support affected the behavior of prejudiced participants, with those who thought that most of their fellow students also were prejudiced sitting farther from the Black woman than those who thought that most of their peers were unprejudiced, an average of 4.3 seats versus 3.4 seats. Perceived social support had no effect on seating distance of the students low on prejudice. Moreover, the prejudice-discrimination correlation was larger for the students high in prejudice, $r = .76$, than for the students low in prejudice, $r = .33$.

(c) What is glass-ceiling effect? Explain the causal factors underlying it, What remedial steps can be taken by the employing organizations to minimize the glass-ceiling effect?

TOPIC: *Psychology of Gender*
SUBTOPIC: *Glass ceiling effect*
LEVEL: *Easy*
NATURE: *Fundamental*

REFERENCE:

Glass ceiling

In economics, the glass ceiling is "the unseen, yet unbreachable barrier that keeps minorities and women from rising to the upper rungs of the corporate ladder, regardless of their qualifications or achievements." Initially, the metaphor applied to barriers in the careers of women but was quickly extended to refer to obstacles hindering the advancement of minority men, as well as women.

Definition

David Cotter et al. defined four distinctive characteristics that must be met to conclude that a glass ceiling exists. A glass ceiling inequality represents:

- "A gender or racial difference that is not explained by other job-relevant characteristics of the employee."
- "A gender or racial difference that is greater at higher levels of an outcome than at lower levels of an outcome."
- "A gender or racial inequality in the chances of advancement into higher levels, not merely the proportions of each gender or race currently at those higher levels."
- "A gender or racial inequality that increases over the course of a career."

Cotter and his colleagues found that glass ceilings are a distinctively gender phenomenon. Both white and African-American women face a glass ceiling in the course of their careers. In contrast, the researchers did not find evidence of a glass ceiling for African-American men.

The glass ceiling metaphor has often been used to describe invisible barriers ("glass") through which women can see elite positions but cannot reach them ("ceiling"). These barriers prevent large numbers of women and ethnic minorities from obtaining and securing the most powerful, prestigious, and highest-grossing jobs in the workforce. Moreover, this barrier can make many women feel as they are not worthy enough to have these high-ranking positions, but also they feel as if their bosses do not take them seriously or actually see them as potential candidates.

The glass ceiling continues to exist although there are no explicit obstacles keeping women and minorities from acquiring advanced job positions – there are no advertisements that specifically say "no minorities hired at this establishment", nor are there any formal orders that say "minorities are not qualified" (equal

employment opportunity laws forbid this kind of discrimination) – but they do lie beneath the surface. When a company exercises this type of discrimination they typically look for the most plausible explanation they can find to justify their decision. Most often this is done by citing qualities that are highly subjective or by retrospectively emphasizing/de-emphasizing specific criteria that gives the chosen candidate the edge. Mainly this invisible barrier seems to exist in more of the developing countries, in whose businesses this effect is highly "visible".

There are many different impediments placed upon women that makes it difficult for them to attain a higher work status. With these very negative effects on women and their self-esteem, the glass ceiling has created an even larger problem than just in the work place. Most see the glass ceiling as only being in the work place, which is where it originally was intended for, it has spread to encompass the household and others as well. The barrier within the household has been seen as the difficulty a woman has of getting out of the household and accumulating a job. Not all women feel as though they are being suppressed in the household and many women choose to be in the household in which case the glass ceiling does not apply to them. The term only applies to those women that wish to be out in the work field but are unable to be. Because the glass ceiling also limits the opportunities of women in developing countries, the term has broadened and also become an issue around the world.

Levels and types of glass ceiling barriers

Societal barriers

The Federal Glass Ceiling Commission of the United States Department of Labor identified two major societal barriers that cause and reinforce a glass ceiling. One societal barrier is with reference to the quantity barrier and the other is with reference to the difference barrier..

Internal business barriers

The following business-based barriers were identified:

- Outreach and recruitment practices that fail to seek out or recruit women and minorities
- Prevailing culture of many businesses is a white male culture and such corporate climates alienate and isolate minorities and women
- Initial placement and clustering in staff jobs or in highly technical and professional jobs that are not on the career track to the top
- Lack of mentoring and management training
- Lack of opportunities for career development, tailored training, and rotational job assignments that are on the revenue-producing side of the business
- Little or no access to critical developmental assignments such as memberships on highly visible task forces and committees
- Special or different standards for performance evaluation
- Biased rating and testing systems
- Little or no access to informal networks of communication
- Counterproductive behavior and harassment by colleagues
- The Federal Glass Ceiling Commission suggest that the underlying cause of the glass ceiling is the perception of many white males that as a group they are losing control of their advancement opportunities.

Governmental barriers

- The Federal Glass Ceiling Commission pinpointed three governmental barriers to the elimination of the glass ceiling. They are:
- Lack of vigorous and consistent monitoring and law enforcement
- Weaknesses in the collection of employment-related data which makes it difficult to ascertain the status of groups at the managerial level and to disaggregate the data

- Inadequate reporting and dissemination of information relevant to glass ceiling issues
- Other barriers
- Different pay for comparable work.
- Sexual, ethnic, racial, religious discrimination or harassment in the workplace
- Lack of family-friendly workplace policies (or, on the flipside, policies that discriminate against gay people, non-parents, or single parents)
- Exclusion from informal networks; Stereotyping and preconceptions of women's roles and abilities; Failure of senior leadership to assume accountability for women's advancement; Lack of role models; Lack of mentoring
- Requiring long hours for advancement, sometimes called the hour-glass ceiling.

Studies

The gender pay gap is the difference between male and female earnings. In 2008 the OECD found that the median earnings of female full-time workers were 17% lower than the earnings of their male counterparts and that "30% of the variation in gender wage gaps across OECD countries can be explained by discriminatory practices in the labour market." The European Commission found that women's hourly earnings were 17.5% lower on average in the 27 EU Member States in 2008. The female-to-male earnings ratio was 0.77 in the United States in 2009.

In 2006 economists Wiji Arulampalam, Alison L. Booth, and Mark L. Bryan analyzed gender pay gaps across the wage distribution in eleven European countries. They controlled for the effects of individual characteristics at different points of the distribution and calculated the part of the gap attributable to differing returns between men and women (i.e., pay discrimination). The economists found that the gender pay gaps typically widened toward the top of the wage distribution (the "glass ceiling" effect), and in exceptional cases it also widened at the bottom (the "sticky floor" effect).

A study by John McDowell, Larry Singell and James Ziliak investigated faculty promotion on the economics profession and found that, controlling for quality of Ph.D. training, publishing productivity, major field of specialization, current placement in a distinguished department, age and post-Ph.D. experience, female economists were still significantly less likely to be promoted from assistant to associate and from associate to full professor. The results suggest the presence of a glass ceiling.

In 2009, David R. Hekman et al. found that white men receive significantly higher customer satisfaction scores than equally well-performing women and minority employees. Customers who viewed videos featuring a black male, a white female, or a white male actor playing the role of an employee helping a customer were 19% more satisfied with the white male employee's performance and also were more satisfied with the store's cleanliness and appearance. This despite that all three actors performed identically, read the same script, and were in exactly the same location with identical camera angles and lighting. In a second study, they found that white male doctors were rated as more approachable and competent than equally well-performing women or minority doctors. They interpret their findings to suggest that customer ratings tend to be inconsistent with objective indicators of performance and should not be uncritically used to determine pay and promotion opportunities.

A customer preference for white men may also help explain why white men hold the highest paying, most prestigious, and most powerful jobs in the occupational structure. This is referred to as occupational segregation. Men tend to be highly concentrated in the top professions, such as supervisors, managers, executives, and production operators. On the other hand, women tend to be over-represented in the lowest-ranking and lowest paid professions in the workforce, such as secretaries, sales associates, teachers, nurses, and child care providers. As a result, occupations become "sex typed" as either being specifically male or female jobs. The stereotypically male-characterized occupations, in which at least 60–75% of the workers are males, are more highly paid than occupations in which 60–75% of the jobholders are women. This segregation of women into less-prestigious and lower-ranked jobs also decreases a woman's chance of being promoted, as well as the chance of having any type of power over others. Moreover, occupational segregation reduces women's access to insurance, benefits, and pensions.

Women are concentrated into the lower-ranked and lower-paid occupations within a given profession. If women are in management positions, they are more likely to be in personnel than in marketing professions; the averages salaries of each are \$48,048 and \$56,940 per year, respectively. Another example occurs within the medical field. Female doctors are much more likely to be heavily constricted in the family practice, obstetrics/gynecology or pediatric specialties, which average about \$130,000 and \$126,000 per year, respectively. However, men are more likely to become surgeons and highly specialized medical practitioners, who tend to average \$240,000 or more per year.

Women hold only 16% of the top executive positions in America's largest corporations and enterprises. Additionally, the median weekly income of full-time working women is only 70.5% of full-time working men. This statistic tends to hold true across all fields of work. This gender imbalance in occupations occurs to some degree because women are more likely than men to be newcomers in many fields; therefore, they lack the primacy and the increased pay that comes with seniority. When it comes to promotions, executives look at all the work that a woman has done but only looks at the potential that a man has. A woman has to prove herself and her talent in order to be considered for the same job that a man would only have to show potential for.

Gender Inequality is often embedded within the social hierarchy and this affects how women and men are perceived in leadership roles. Different traits are ascribed to females when compared to males that often color the selection process with unfounded bias. If a female does have other traits aside from the gendered traits that she is believed to possess, then she is viewed negatively. For example, in a study conducted by Thomas-Hunt and Phillips (2004) they found that when women possessed expertise they were actually viewed as less influential by others. However, expertise was positive for males. Also, female led groups were less productive than male led groups even though the women held expertise in the area just like males. Therefore, possessing expertise is not viewed as positively as it is for males. This also suggests that lack of skills is not the only reason why women are not deemed worthy of leadership roles. As cited by Lyness and Thompson in 1997, one consequence of sex stereotypes is that women's achievements tend to be devalued or attributed to luck or effort rather than ability or skill, and therefore this stereotype has the potential to reduce the organizational awards that they receive.

Lyness and Heilman (2006) found that in a study conducted with 448 upper-level employees that women were less likely to be promoted than males, and if they were promoted they had stronger performance ratings than males. However, performance ratings were more strongly connected to promotions for women than men. This suggests that women had to be highly impressive to be considered eligible for leadership roles, whereas this was not the case for men. In a number of longitudinal studies (Cox & Harquail, 1991; Olson, Frieze, & Good, 1987; Strober, 1982; Wallace, 1989; Wood, Corcoran, & Courant, 1993), that track comparably qualified men and women, such as graduates of the same MBA program or law school, it has been shown that over time there is degradation of the women's compensation that cannot fully be explained by differences in qualifications, work history, experience, or career interruptions.

Women are more likely to choose jobs based on factors other than pay, for instance: health care and scheduling that can be managed with the duties of primary care of children for which women are still overwhelmingly responsible, and thus they may be less likely to take jobs that require travel or relocation or jobs that are hazardous. On average, women take more time off and work fewer hours, often due to the unequal distribution of childcare labor, domestic labor, medical needs specific to women, and other family issues that tend to fall to a woman's responsibility per the gender roles assigned by society. The ending result of women's extensive obligation to attend to responsibilities of the home and children is that their wages plummet. Family demands have a downward pull on women's earnings as they proceed throughout their life course. The earnings gap tends to widen considerably when men and women are in their early to mid-thirties; the gap reaches the widest point when men and women are in their fifties.

Another perspective on the gender wage gap comes from a 2008 research study by Judge and Livingston. They investigated the relationship(s) between gender, gender role orientation, and labor market earnings. The study did not specifically look at the gender wage gap, but focused more on the impact that the interaction between gender role orientation (people's beliefs about what occupations are considered suitable and appropriate for males and females) and gender has on earnings. The researchers suggested

that the gender wage gap cannot fully be explained through economic factors, offering that underlying psychological components and attitudes account for some of the difference. They found that while traditional gender roles were positively connected to earnings, that gender significantly predicted the amount and direction of this relationship. For instance, traditional gender role orientation was positively related with earnings for males, providing them with strong earnings. Meanwhile, traditional gender role orientation was slightly negatively associated with earnings for females, providing them weaker earnings. This suggests that men who have traditional male-female attitudes about working are rewarded in the workplace for seeking to maintain the social order, while women were neither rewarded nor punished. In general, the study indicated that even though gender role beliefs are beginning to become less traditional for men and women, traditional gender role orientation continues to intensify the gender wage gap.

The Pipeline Theory

The Pipeline Theory describes the situation in which women are placed on a track that would eventually promote them to a top executive position. However, this process is long, and women sometimes spend 20–35 years in the pipeline waiting to advance to CEO positions. While many argue that women in the pipeline are becoming sufficiently trained and educated to compete for top-level positions, others contend that women in the pipeline are being unjustly held back from advancement. The latter would call this situation the "leaky pipe," describing a situation in which the pipeline has not advanced women to top-level positions due to "leaks" and "blockages" in the pipe. For example, some believe that there are not enough women in the pipeline. Secondly, women make many sacrifices and tradeoffs while moving up the pipeline. Lastly, the environment in many companies discourages women from advancing because they are male dominated. In order for the pipeline to work there must be a desire from women to fill the high executive positions in order for them to even be considered for those positions.

The glass ceiling and disclosure of sexual orientation

In order to excel in the workplace it is important that people are familiar with a worker's strong attributes. This may present obstacles for the LGBT community because their sexual orientation may be a large factor that plays in to how they identify themselves. In a study done by Ragins in 2004, disclosure of sexual orientation has been found to have some positive, some negative, and nonsignificant effects on work attitudes, psychological strain, and compensation. Ragins, Singh and Cornwell in 2007, found that in some cases disclosure of sexual orientation has been found to result in reports of verbal harassment, job termination, and even physical assault. (D'Augelli & Grossman, 2001; Friskopp & Silverstein, 1996). In their study, Ragins, Singh and Cornwell examined fear of disclosure only among LGBT employees who had not disclosed, or had not fully disclosed their sexual identity at work. Promotion rate and compensation were used to measure career outcomes. Promotions were defined as involving two or more of the following criteria that may occur within or between organizations: significant increases in salary; significant increases in scope of responsibility; changes in job level or rank; or becoming eligible for bonuses, incentives, and stock plans. Given this definition, respondents were asked how many promotions they had received over the past 10 years. Respondents also reported their current annual compensation, which included salary, bonuses, commissions, stock options, and profit sharing. The findings showed that those who feared more negative consequences to disclosure reported less job satisfaction, organizational commitment, satisfaction with opportunities for promotion, career commitment, and organization-based self-esteem and greater turnover intentions than those who feared less negative consequences.

Recommendations: What HR Can Do to Help Break the Glass Ceiling

HR professionals should take a proactive role to identify whether the glass-ceiling phenomenon is operating within their organization and should lead the way to find solutions to overcome it. Below are a number of actions that HR professionals can take to break the glass-ceiling barriers. By no means is this an exhaustive list, but instead it serves as a starting place. Understanding the organization's culture, values and norms is the first step. Change, however, will only successfully occur with the commitment of the organization's top management. Key to organizational change is education—of management, women and the overall workforce. Finally, measurement is critical to map the path for change and chart the results.

Examine the Organizational Culture

- Review HR policies and practices to determine if they are fair and inclusive (e.g., pay differences, hiring practices, history of promotions to senior positions, affirmative action plans).
- Examine the organization's informal culture: look at subtle behaviors, traditions and norms that may work against women.
- Through surveys and focus groups, discover men's and women's perceptions about the organization's culture, their career expectations and what drives their intentions to stay or leave.
- Identify the organization's best practices that support women's advancement.
- Map the strengths and weaknesses of policies and programs.

Drive Change Through Management Commitment

- Support top-management commitment to talent management, including women in senior positions.
- Ensure that diversity (including women in senior positions) is a key business measurement for success that is communicated to all employees by top management.
- Require line management accountability for advancement of women by incorporating it in performance goals.
- Train line managers to raise awareness and understand barriers to women's advancement.

Foster Inclusion

- Establish and lead a change-management diversity program for managers and employees.
- Affirm diversity inclusion in all employment brand communications.
- Develop a list of women for succession planning.
- Develop and implement retention programs for women.

Educate and Support Women in Career Development

- Emphasize the importance of women acquiring line management experience.
- Encourage mentoring via informal and formal programs.
- Acknowledge successful senior-level women as role models.
- Support the development and utilization of women's networks inside and outside the organization.
- Create and implement leadership development programs for women, including international assignments, if applicable.

Measure for Change

- Monitor the impact of recruiting strategies designed to attract women to senior levels of the organization.
- Track women's advancement in the organization (hiring, job rotation, transfers, international assignments, promotions).
- Determine who gets access to leadership and management training and development opportunities.
- Evaluate differences between salary of men and women at parallel levels within the organization.
- Measure women's turnover against men's.
- Explore reasons why women leave the organization.

Conclusion

Both domestically and globally, women represent a relatively untapped source of talent for leadership in the workplace. While progress has been made across the globe, barriers to women's advancement continue to exist, including cultural norms, stereotypes, and employer policies and practices. As the renowned economist Lester Thurow, Lemelson Professor of Management and Economics at the Massachusetts Institute of Technology, recently said, "Great challenges lay ahead and our economic future is at stake. Organizations cannot compete in a global environment without using women." Human resource

professionals have a significant part to play—through organizational culture, workplace policies and practices, change management and workforce education—to develop women leaders at home and abroad.

8. Answer the following in about 250 words:

20x3=60

(a) Discuss critically the utility of IT and mass media in the context of distance learning. Throw light on the strengths and limitations of distance learning.

TOPIC: *Application of Psychology in IT and Mass Media*
SUBTOPIC: *Distance learning through IT and mass media*
LEVEL: *Easy*
NATURE: *Applied*

REFERENCE:

VISION IAS

Compared to the traditional way of teaching, this new method, which reaches students who otherwise would not have taken these courses, provides learning opportunities to a much larger and diversified audience, thanks to the absence of time and physical constraints. Students in different countries can now, without leaving their families or their companies, attend courses virtually anywhere in the world. In addition the fact that the archived lectures are available on the Internet as soon as they are taught while a video may take several days to reach the student constitutes a considerable advantage over common courier/mail delivery of video tapes since delays are minimized or eliminated entirely.

In addition, archived lectures allow students who are attending the course on-campus to view entire lectures or parts thereof as many times as necessary. In this aspect this method complements and enhances the traditional teaching. Another advantage of the Internet streaming video technology over videotapes is the protection against unlawful copying of the audio/video material. While there is no simple way to prevent videocassettes from being copied, the streaming technology prevents lectures from being downloaded. Furthermore by changing passwords every year we can make sure that the lectures are not being illegally accessed by unauthorized users over time.

A great deal of educational and cognitive research has shown that the most effective learning environment involves interactive collaborative, “learning-by-doing” models. Clearly the traditional classroom setting facilitates spontaneous interaction among students and between students and instructors. However social preferences and learned habits often suppress this collaborative, active learning in most classrooms and many in-class learning experiences are simply one-way lectures. It takes a great deal of effort on the part of instructor and students to generate a collaborative learning environment in the classroom, in which students work in groups on problem-solving and share findings—discoveries—and insight with each other. This “ideal” in-class model may well be described as a “synchronous learning network”—a “network” of people learning from each other—with the instructor serving the role of facilitator and coordinator rather than the source of a one way flow of canned information.

www.numerons.com

Our efforts in developing the hybrid synchronous and asynchronous learning model seek to simultaneously enhance the learning experience of three (3) distinct groups, namely traditional on-campus students, students at a distance who join the class in real-time via the Internet and students who take the class completely asynchronously.

1) On-Campus Students: The first group is the in-class students who can make use of the online materials at anytime and from a location of choice to supplement and complement their in-class learning. The asynchronous interaction such as electronic conferencing, chat-rooms and mailing lists provides alternative, and often, more desirable forum for collaborative learning, since many students are more comfortable with contributing to a discussion on their own terms, with ample time for reflective responses, rather than to be put on the spot in the live classroom. It takes much skill and sensitivity on the part of an instructor to get a lively and informal in-class discussion going without causing embarrassment to some students. The asynchronous mechanisms such as mailing lists and electronic conferencing systems do help in this regard—though experience has also shown that the meaningful use of these facilities must be

encouraged and even required initially, so that the real benefits of these interactions can be perceived as a means to overcome inhibitions of custom. An additional benefit for on-campus students is that they now have greater flexibility in scheduling, since they can take some classes entirely asynchronously or via a live on-line connection from a remote location. Moreover, when entire courses are available online, the options become almost infinite: self-paced course completion, access to prerequisite classes, which are not offered by traditional classes in a given semester, as well as the ability to take a class when the traditional in-class sections are full. The list of potential benefits of the availability of high quality asynchronous classes for even on-campus students is clearly significant and these open new possibilities and modes of learning.

2) Off-Campus Students—Live Lectures: The facilities described in this paper allow remote students anywhere on the Internet to join and actively participate in live on-line classes. These students would simply point their Web browsers to the URL for the live classroom lecture to get a connection to the streaming video and audio with optional links to the chat-room and online class materials. In this mode the student can ask questions as the lecture is being given using the live chat window. The instructor either repeats the question to the class or can display the question on the class TV monitors which is then sent via the streaming video to all participants. The investment in hardware and software on the part of the online student is simply a standard multimedia PC with at least a 28.8-kbps Internet connection. A full duplex sound card (or alternatively a second half-duplex card) would allow voice interaction as well as or instead of the live chat window. It takes some coordination effort to manage these interactions, such as the need for requesting permission to speak (say via the chat window) and being acknowledged by the instructor, being given permission to “speak” including access to the feedback audio system. However our experience is that for small groups of remote students the system works quite well, depending on Internet latencies. Of course, for live Internet classes, it does help to have the lecture materials online or sent a priori to the students, as well as frequent references during the lecture to tags or locations in the class materials to facilitate coordination. Our experience is that while the video window attempts to send what the in-class students see, some material is less intelligible than others. In particular, it appears to be quite difficult to find an optimal set of contrasts and colors in the video capture and encoding process which deals uniformly well with computer screen projections and material written on the chalk board. The use of multi-way application-sharing programs such as NetMeeting provides a partial answer to this problem but further work is required in this area. A final point worth mentioning is that there is an unavoidable delay of several seconds between the live in-class lecture and the streaming video/audio at the remote students location. However the delay is usually tolerable on non-congested Internet connections.

3) Off-Campus-Asynchronous Students: Complete asynchronous access to the “virtual classroom” environment described above allows access to course materials by students who could not otherwise take the desired courses. This realization offsets some of the real or perceived disadvantages of taking online courses via ALN’s. On the other hand, the rich set of information sources embedded in the ALN design described in this paper provides an appealing environment with high-quality slides and images of handwritten notes synchronized with the streaming video and audio. The mailing list and electronic conferencing facility allow collaborative interaction with other class members as the lecture is being viewed and this captures the desirable benefits of a network or people—albeit asynchronous in time and space—learning together.

Strengths and Limitations of Distance Learning

While online programs have significant strengths and offer unprecedented accessibility to quality education, there are weaknesses inherent in the use of this medium that can pose potential threats to the success of any online program. These problems fall into six main categories:

1. The Technology
2. The Students
3. The Facilitator
4. The Administration and Faculty
5. The Online Environment
6. The Curriculum

The Technology

Equity and Accessibility to Technology

Before any online program can hope to succeed, it must have students who are able to access the online learning environment. Lack of access whether it be for economical or logistics reasons will exclude otherwise eligible students from the course. This is a significant issue in rural and lower socioeconomic neighborhoods. Furthermore, speaking from an administrative point of view, if students cannot afford the technology the institution employs, they are lost as customers. As far as Internet accessibility is concerned, it is not universal, and in some areas of the United States and other countries, Internet access poses a significant cost to the user. Some users pay a fixed monthly rate for their Internet connection, while others are charged for the time they spend online. If the participants' time online is limited by the amount of Internet access they can afford, then instruction and participation in the online program will not be equitable for all students in the course. This is a limitation of online programs that rely on Internet access.

Computer Literacy

Both students and facilitators must possess a minimum level of computer knowledge in order to function successfully in an online environment. For example, they must be able to use a variety of search engines and be comfortable navigating on the World Wide Web, as well as be familiar with Newsgroups, FTP procedures and email. If they do not possess these technology tools, they will not succeed in an online program; a student or faculty member who cannot function on the system will drag the entire program down.

Limitations of Technology

User friendly and reliable technology is critical to a successful online program. However, even the most sophisticated technology is not 100% reliable. Unfortunately, it is not a question of if the equipment used in an online program will fail, but when. When everything is running smoothly, technology is intended to be low profile and is used as a tool in the learning process. However, breakdowns can occur at any point along the system, for example, the server which hosts the program could crash and cut all participants off from the class; a participant may access the class through a networked computer which could go down; individual PCs can have numerous problems which could limit students' access; finally, the Internet connection could fail, or the institution hosting the connection could become bogged down with users and either slow down, or fail all together. In situations like these, the technology is neither seamless nor reliable and it can detract from the learning experience.

The Students

While an online method of education can be a highly effective alternative medium of education for the mature, self-disciplined student, it is an inappropriate learning environment for more dependent learners. Online asynchronous education gives students control over their learning experience, and allows for flexibility of study schedules for non traditional students; however, this places a greater responsibility on the student. In order to successfully participate in an online program, student must be well organized, self-motivated, and possess a high degree of time management skills in order to keep up with the pace of the course. For these reasons, online education is not appropriate for younger students (i.e. elementary or secondary school age), and other students who are dependent learners and have difficulty assuming responsibilities required by the online paradigm.

The Facilitator

Lack of Essential Online Qualities

Successful on-ground instruction does not always translate to successful online instruction. If facilitators are not properly trained in online delivery and methodologies, the success of the online program will be compromised. An instructor must be able to communicate well in writing and in the language in which the

course is offered. An online program will be weakened if its facilitators are not adequately prepared to function in the Virtual Classroom.

An online instructor must be able to compensate for lack of physical presence by creating a supportive environment in the Virtual Classroom where all students feel comfortable participating and especially where students know that their instructor is accessible. Failure to do this can alienate the class both from each other and from the instructor. However, even if a virtual professor is competent enough to create a comfortable virtual environment in which the class can operate, still the lack of physical presence at an institution can be a limitation for an online program. For the faculty as well as the participants, such things as being left out of meetings and other events that require on-site interaction could present a limiting factor in an online program.

The Administration and Faculty

Some environments are disruptive to the successful implementation of an online program. Administrators and/or faculty members who are uncomfortable with change and working with technology or feel that online programs cannot offer quality education often inhibit the process of implementation. These people represent a considerable weakness in an online program because they can inhibit its success.

Sometimes administration cannot see beyond the bottom line and look at online programs only as ways to increase revenues and are thus not committed to seeing online programs as a means of providing quality education to people who would otherwise not be able to access it. In such a case, an institution that is not aware of the importance of proper facilitator training, essential facilitator characteristics, and limitations of class size would not understand the impact that these elements can have on the success of an online program.

The Online Environment

Levels of Synergy

Online learning has its most promising potential in the high synergy represented by active dialog among the participants, one of the most important sources of learning in a Virtual Classroom. However, in larger classes (20 or more students), the synergy level starts to shift on the learning continuum until it eventually becomes independent study to accommodate the large class. At this point, dialog is limited as well as interaction among participants and the facilitator. The medium is not being used to its greatest potential.

What Should Not Be Taught Online

In the excitement and enthusiasm for online programs that has been generated recently, it is important to recognize that some subjects should not be taught online because the electronic medium in its current state of development does not permit the best method of instruction. Examples are hands-on subjects such as public speaking, surgery, dental hygiene, and sports where physical movement and practice contribute to the achievement of the learning objectives. These subjects are probably best taught in a face-to-face traditional learning environment. Hybrid courses may represent a temporary solution to this problem thus making that portion of the course more accessible to a greater number of people who would otherwise have difficulty getting to campus. However, solutions of that sort still underline the fact that online teaching cannot satisfy all educational needs and goals. Just because it may be technologically possible to simulate a physical learning experience, this does not necessarily mean that it is the best way to teach it.

The Curriculum

The curriculum of any online program must be carefully considered and developed in order to be successful. Many times, in an institution's haste to develop distance education programs, the importance of the curriculum and the need for qualified professionals to develop it is overlooked. Curriculum and teaching methodology that are successful in on-ground instruction will not always translate to a successful online program where learning and instructional paradigms are quite different. Online curriculum must

reflect the use of dialog among students (in the form of written communication), and group interaction and participation. Traditional classroom lectures have no place in a successful online program. Education of the highest quality can and will occur in an online program provided that the curriculum has been developed or converted to meet the needs of the online medium.

Today is a very exciting time for technology and education. Online programs offer technology-based instructional environments that expand learning opportunities and can provide top quality education through a variety of formats and modalities. With the special needs of adult learners who need or want to continue their education, online programs offer a convenient solution to conflicts with work, family and study schedules. Institutions of higher education have found that online programs are essential in providing access to education for the populations they wish to serve. In order for an online program to be successful, the curriculum, the facilitator, the technology and the students must be carefully considered and balanced in order to take full advantage of the strengths of this format and at the same time, avoid pitfalls that could result from its weaknesses.

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The Disadvantages of Online Learning

The most relevant disadvantages of online learning are directly tied to the specificities of the web environment itself that bring people to choose this method of education. The nonexistence of a physical classroom, flexible schedules and reduced personal interaction are all factors that attract people, but have their own negative aspects that should be highlighted.

Most of these disadvantages of online learning are connected to the one overarching characteristic of e-learning, which is the reduced personal interaction inherent in an online learning system. Firstly, participants can only receive information from one source – the professor or the media content, and usually have limited opportunities to exchange ideas and information with other students or even learn from their mistakes and experiences. The lack of non-visual cues may bring delays or misunderstandings when information is transmitted, as well as depriving the user from practicing his interpersonal skills and self-confidence in work presentations, advantages that can be decisive in the workforce. Lastly, the relayed nature of communication between teacher and student dampens a timely exchange of questions which, according to a study in the American Economic Review, may result in poorer test scores when analytical thought is required of the student.

One of the factors that bring users to this type of training environment is the schedule flexibility and the reduced time investment it seems at first to require. Saving on commute hours and being able to maintain a full or part time job and work schedule are most certainly attractive features, but many make the mistake of not allotting much time for school related activities from the beginning. While a meager time allowance for the course may be just enough to attend and perform homework, greater benefits can be achieved through extra research and study.

The characteristic that makes online classes what they are and appealing in so many ways (the ability to attend from anywhere in the world) also presents an obvious hindrance – there are no facilities. Most colleges and schools offer their students physical resources to enhance achievement like libraries, study rooms and research material, like labs and field study opportunities. Fields like scientific research or interpersonal relations may be extremely hard or near impossible to assemble in an entirely virtual environment without a loss of quality.

Consequentially, the students may want to ensure the place from where they attend classes provide adequate conditions to focus on their course of study. Not every single student has the possibility of ensuring a time and place to attend an online class without any interruptions. Another disadvantage of online learning often heard from e-learning users is the struggle to make family and room mates understand the concentration required to properly benefit from the online program. As this type of education is still in an evolving stage, many people don't quite understand it yet as something as meritorious and important as classes that require a physical classroom presence. Here, the learner may have to manage both physical interruptions and often quite a bit of negativity in his life "outside of the virtual classroom."

The globalization of student access may bring a subtle negative aspect to the professional life of the graduate – the loss of networking opportunities. With users logging in from various parts of the country and even the world, the contacts gained may be of little practical application. Also, it is frequently by interacting with professors, teachers, and professionals in the field that a student opens the gateway for post-graduate jobs, something that may be lacking in the limited interaction of online learning management systems.

In conclusion, all these disadvantages of online learning can be to a certain degree mollified by the user himself, but require a high degree of self awareness and motivation. The main drawbacks to online learning can therefore be overcome with a sincere effort in interpersonal interaction within the web environment and by fostering contacts in real life that relate to the field of study, an effort that is clearly strenuous and demanding in terms of willpower and time expended.

Other Disadvantages of Online Learning

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Employment - Student may find that employers as well as institutions of higher learning are less willing to accept degrees, transcripts, and certifications from online programs as they are for their more traditional accredited programs in a face-to-face environment. While the acceptance of the quality of online learning is growing, there may still be some who think the quality of an online education is not the same as one gained in a physical building.

Communication/Less Interaction - Most, if not all, of your communication and interaction with your instructor and fellow students will be through electronic medium including email, chat rooms, discussion boards, or perhaps Skype or online meeting technology. Not having access to the visual cues, body language, and non-verbal communication of a traditional program could make it difficult to discern true meaning. Online learning can limit the amount of public speaking practice and team work that are so much a part of in class presentations, group work, and discussions.

Course Availability- Not all courses of study are available online. If you're interested in an unusual field or one that requires lab work, you may find it difficult to find a suitable source for an online education.

Access to Instructors - Another disadvantage of online learning is that Instructors will not be on hand or "on campus" and easily accessible to answer questions. While they may be available on email, that's not the same as having access to a living, breathing person and to be able to ask questions during a break or after class.

Technology - While technology tools and the Internet infrastructure are becoming more and more stable, there are still instances when technology fails. Servers may be down, or you may experience periods when your connection to the Internet is interrupted. Hard drives fail, and email may get caught in spam filters and never be delivered. It's important to backup important class information and make certain that you have alternative ways to communicate.

Working Alone - Working alone can isolate a student, making it easy to put off or neglect course work or drop out of an online class completely. It takes a certain amount of internal motivation to continue when you're pressed for time and don't have fellow students to talk with and help to motivate you along the way.

For many online classes, there is the potential for less interaction with faculty and other students. Students may have limited access to the online instructor. Another disadvantage of online learning is that students may find the lack of non-verbal communication that is a part of traditional face to face learning difficult to get used to along with fewer networking opportunities.

Discussions and Implications for Online Learning Environment (OLE)

This research study provides some 'food for thought' on researching and practicing online learning in a broader distance education system such as an open university rather than within a single unit of a course.

Considering the different mixture of study participants, the analysis of data was carried out separately between students who can opt for using the OLE and students required to access the OLE on a regular basis. The analysis confirmed the assumption that students in compulsory OLE courses are generally more active users than students in an optional mode of the OLE. However, there were no significant differences between undergraduate and graduate students in web related behaviors such as log-in frequency, average time spent per visit, and self-evaluation of level of activity in using the OLE as well as level of Internet skill. This finding appears to challenge some of the course coordinators' perspectives that the OLE can be used more effectively for graduate courses than for undergraduate ones due to the relatively more mature and serious attitudes that graduate students project towards course participation (Shin, 2002c). At present, however, it is difficult to determine which data are more valid and reliable; given potential impact of these findings on institutional policy, further investigation is required.

Another disputable point is the statistically unsupported relationship between student's engagement in the OLE and perceived learning outcomes, found in the analysis of the compulsory OLE courses. One possible explanation for this is that for the students who are required to access the OLE on a regular basis, what matters to their learning is not so much the sheer frequency of visits to the course site as a measure of the quality of engagement in course activities. Given the usage of the compulsory mode, tutors or course coordinators may well try harder to engage students in the OLE than do the tutors and course coordinators in optional OLE courses. Future studies should take notice of this point, using more sophisticated measures of students' engagement in the OLE, either quantitatively or qualitatively.

When the use of the OLE was a matter of a student's choice, however, the effect of the OLE seems to be direct in relation to learning outcomes. This finding hints that students who are active in making use of the virtual component of learning materials or course activities may actually gain more from the course than students less interested in what the additional medium of instruction offers. But a subtle caution is needed in putting this observation into practice, for the finding was only true for the students in an optional mode of the OLE. This would imply that while it is important to encourage students to be autonomous in participating in the OLE, worrying too much about the possible low level of participation may be unnecessary.

The data also reveal information about individual student backgrounds that can result in varying levels of engagement in online learning, including level of previous education, previous online learning experience and level of competence using the Internet. Among these, self-assessed Internet skill was the strongest variable affecting both groups of students. Given this finding, the institution's current practice of providing students with the 'Online User's Guide' or 'OLE training video' is viewed as helpful to students in using the OLE (OUHK Working Group, 1999). Literature, too, stresses that ensuring a smooth 'learner-Interface interaction' with instructional media should be a prerequisite for distance students to effectively communicate with course content, instructors or peer students (Hillman et al, 1994).

Apart from the aspects related to the OLE, what may be noteworthy for distance education researchers are the observed significant connections between students' sense of institutional presence and the three indicators of involvement with distance learning (Figures 2 and 3). Put simply, distance students who have a stronger sense of availability of, and connectedness with, educational programme providers are likely to be more positive about learning outcomes, more satisfied with their learning experiences and more willing to continue being involved in distance learning than are students with a weaker sense of institutional presence. This finding backs the assertion that established 'studentship' can be crucial to distance students' academic success as well as course or programme completion, particularly for the students involved in an open university system (Shin, 2002b; Student Research Centre I ET OU, 1986). From this, practical lessons may be drawn such as that distance education programs or institutions need to be in continual communication with their students and should assure the students that their needs are taken care of despite the distance element. On the research side, too, the confirmed significance of institutional presence on various aspects of distance learning should compel researchers to attend to the 'totality of students' experience' rather than focusing on the use of individual technologies within a course (Gibbs, 2002, 101).

(b) Explain the psychosocial factors and myths that demotivate people from following small family norms. Suggest relevant motivational strategies in this context.

TOPIC: *Application of psychology to environment and related fields*
SUBTOPIC: *Motivating for small family norm*
LEVEL: *Medium*
NATURE: *Applied*

REFERENCE:

A close elimination of the MCA results reveals that the perception of the family size ideal had a substantial effect on the decision to initiate contraception. It showed that 65 percent of those respondents who preferred a one-child family were early acceptors. It is possible that women with a preference for a small family would also prefer to end their childbearing process early and therefore, start contraception earlier than those who have larger family size ideals. At the same time, these women are likely to be conscious of the health of their children "as they have planned for fewer children" and therefore tend to space the births. This explains the acceptance of spacing methods in the early stages. Bulatao has reported similar findings among Filipino women; women who initiated early contraceptive use were those who showed a preference for small ideal family sizes.

The relationship between age at marriage, which emerged as a second important variable and the initiation of contraception, indicated that a higher proportion of those of who married late went for early family planning acceptance. It can be seen that 38 percent of those who married at the age of 24 years or above had accepted contraception before their second pregnancy as against those who had married before 24 years of age. Marriage in the Indian context is linked with the larger issues of the value system, where early marriages are still prevalent and signify a woman's primary role, in terms of home-making, . Women who marry late have a relatively smaller reproductive span during which they have to complete their childbearing. Therefore, it is likely that women marrying late possess a modern outlook towards life and so may have started to contracept earlier in order to complete the process of childbearing.

Women's education was found to have a strong association with the initiation of contraception. The higher the level of education, the earlier was the adoption of contraception. Education facilitates rational thinking of individuals in terms of a planned family. Hence, more educated people make appropriate fertility decisions well in advance in the course of their marital life and tend to go for early contraceptive adoption. This finding is in the expected direction; the association between education and timing of acceptance has also been reported earlier, where early acceptors of family planning were found to be better educated as compared to late acceptors. Similarly, a positive association of education and early initiation of contraceptive use has been reported among Filipino women.

Knowledge of family planning methods was also found to have a substantial impact on contraceptive initiation. Respondents possessing higher knowledge of family planning methods were more likely to acquire correct knowledge. This would enable them to try different temporary methods. In addition, the tendency to acquire more knowledge is expected to be associated with the desire to space children and small family size preferences. For both these reasons, women with higher knowledge about family planning methods tend to use contraceptives earlier than those who have less knowledge.

The couple's income, and need for order and for achievement had a moderate to low impact on the time of contraceptive acceptance. This finding is consistent with that of earlier researchers.

From the point of policy implications, the findings suggest that in order to have any perceptible impact on family planning behavior, it is essential to bring about changes in family size ideals, improve contraceptive knowledge, and increase the age at marriage. In fact, it can be said that changing these dimensions is more crucial and immediate in terms of their impact on contraceptive behavior than enhancing the level of education per se. In other words, improvements in education will yield a desirable result if it is accompanied by concurrent changes in the value system and contraceptive knowledge status. For this purpose, the programme will have to depend heavily on communication efforts, both mass media and interpersonal.

Attached PDF files for further reference:

[PDF File Link: Contraceptive Use in India](#)

[PDF File Link: Understanding Religion and the Economics of Fertility in India, Sriya Iyer](#)

(c) What is man-machine system in the context of human engineering? Highlight the applications of human engineering in defence with reference to equipment design.

TOPIC: *Military Psychology*
SUBTOPIC: *Human Engineering in Defense*
LEVEL: *Easy*
NATURE: *Applied*

REFERENCE:

VISION IAS

Human factors

Human factors science or human factors technologies is a multidisciplinary field incorporating contributions from psychology, engineering, industrial design, statistics, operations research and anthropometry. It is a term that covers:

- The science of understanding the properties of human capability (Human Factors Science).
- The application of this understanding to the design, development and deployment of systems and services (Human Factors Engineering).
- The art of ensuring successful application of Human Factors Engineering to a program (sometimes referred to as Human Factors Integration). It can also be called ergonomics.

In general, a human factor is a physical or cognitive property of an individual or social behavior, which is specific to humans and influences functioning of technological systems as well as human-environment equilibriums.

In social interactions, the use of the term human factor stresses the social properties unique to or characteristic of humans.

Human factors involves the study of all aspects of the way humans relate to the world around them, with the aim of improving operational performance, safety, through life costs and/or adoption through improvement in the experience of the end user.

The terms human factors and ergonomics have only been widely used in recent times; the field's origin is in the design and use of aircraft during World War II to improve aviation safety. It was in reference to the psychologists and physiologists working at that time and the work that they were doing that the terms "applied psychology" and "ergonomics" were first coined. Work by Elias Porter, Ph.D. and others within the RAND Corporation after WWII extended these concepts. "As the thinking progressed, a new concept developed - that it was possible to view an organization such as an air-defense, man-machine system as a single organism and that it was possible to study the behavior of such an organism. It was the climate for a breakthrough."

Specializations within this field include cognitive ergonomics, usability, human computer/ human machine interaction, and user experience engineering. New terms are being generated all the time. For instance, "user trial engineer" may refer to a human factors professional who specializes in user trials. Although the names change, human factors professionals share an underlying vision that through application of an understanding of human factors the design of equipment, systems and working methods will be improved, directly affecting people's lives for the better.

Human factors practitioners come from a variety of backgrounds, though predominantly they are psychologists (engineering, cognitive, perceptual, and experimental) and physiologists. Designers

(industrial, interaction, and graphic), anthropologists, technical communication scholars and computer scientists also contribute. Though some practitioners enter the field of human factors from other disciplines, both M.S. and Ph.D. degrees in Human Factors Engineering are available from several universities worldwide.

The Formal History of American Human Factors Engineering

The formal history describes activities in known chronological order. This can be divided into 5 markers:

Developments prior to World War I

Prior to WWI the only test of human to machine compatibility was that of trial and error. If the human functioned with the machine, he was accepted, if not he was rejected. There was a significant change in the concern for humans during the American civil war. The US patent office was concerned whether the mass produced uniforms and new weapons could be used by the infantry men. The next development was when the American inventor Simon Lake tested submarine operators for psychological factors, followed by the scientific study of the worker. This was an effort dedicated to improve the efficiency of humans in the work place. These studies were designed by F W Taylor. The next step was the derivation of formal time and motion study from the studies of Frank Gilbreth, Sr. and Lillian Gilbreth.

Developments during World War I

With the onset of WWI, more sophisticated equipment was developed. The inability of the personnel to use such systems led to an increase in interest in human capability. Earlier the focus of aviation psychology was on the aviator himself. But as time progressed the focus shifted onto the aircraft, in particular, the design of controls and displays, the effects of altitude and environmental factors on the pilot. The war saw the emergence of aeromedical research and the need for testing and measurement methods. Still, the war did not create a Human Factors Engineering (HFE) discipline, as such. The reasons attributed to this are that technology was not very advanced at the time and America's involvement in the war only lasting for 18 months.

Developments between World War I and World War II

This period saw relatively slow development in HFE. Although, studies on driver behavior started gaining momentum during this period, as Henry Ford started providing millions of Americans with automobiles. Another major development during this period was the performance of aeromedical research. By the end of WWI, two aeronautical labs were established, one at Brooks Airforce Base, Texas and the other at Wright field outside of Dayton, Ohio. Many tests were conducted to determine which characteristic differentiated the successful pilots from the unsuccessful ones. During the early 1930s, Edwin Link developed the first flight simulator. The trend continued and more sophisticated simulators and test equipment were developed. Another significant development was in the civilian sector, where the effects of illumination on worker productivity were examined. This led to the identification of the Hawthorne Effect, which suggested that motivational factors could significantly influence human performance.

Developments during World War II

With the onset of WW II, it was no longer possible to adopt the Tayloristic principle of matching individuals to preexisting jobs. Now the design of equipment had to take into account human limitations and take advantage of human capabilities. This change took time to come into place. There was a lot of research conducted to determine the human capabilities and limitations that had to be accomplished. A lot of this research took off where the aeromedical research between the wars had left off. An example of this is the study done by Fitts and Jones (1947), who studied the most effective configuration of control knobs to be used in aircraft cockpits. A lot of this research transcended into other equipment with the aim of making the controls and displays easier for the operators to use. After the war, the Army Air Force published 19 volumes summarizing what had been established from research during the war.

Developments after World War II

In the initial 20 years after the WW II, most activities were done by the founding fathers: Alphonse Chapanis, Paul Fitts, and Small. The beginning of cold war led to a major expansion of Defense supported research laboratories. Also, a lot of labs established during the war started expanding. Most of the research following the war was military sponsored. Large sums of money were granted to universities to conduct research. The scope of the research also broadened from small equipments to entire workstations and systems. Concurrently, a lot of opportunities started opening up in the civilian industry. The focus shifted from research to participation through advice to engineers in the design of equipment. After 1965, the period saw a maturation of the discipline. The field has expanded with the development of the computer and computer applications.

Founded in 1957, the Human Factors and Ergonomics Society is the world's largest organization of professionals devoted to the science of human factors and ergonomics. The Society's mission is to promote the discovery and exchange of knowledge concerning the characteristics of human beings that are applicable to the design of systems and devices of all kinds.

The Cycle of Human Factors

Human Factors involves the study of factors and development of tools that facilitate the achievement of these goals. In the most general sense, the three goals of human factors are accomplished through several procedures in the human factors cycle, which depicts the human operator (brain and body) and the system with which he or she is interacting. First it is necessary to diagnose or identify the problems and deficiencies in the human-system interaction of an existing system. After defining the problems there are five different approaches that can be used in order to implement the solution. These are as follows:

- Equipment Design: changes the nature of the physical equipment with which humans work.
- Task Design: focuses more on changing what operators do than on changing the devices they use. This may involve assigning part or all of tasks to other workers or to automated components.
- Environmental Design: implements changes, such as improved lighting, temperature control and reduced noise in the physical environment where the task is carried out.
- Training the individuals: better preparing the worker for the conditions that he or she will encounter in the job environment by teaching and practicing the necessary physical or mental skills.
- Selection of individuals: is a technique that recognizes the individual differences across humans in every physical and mental dimension that is relevant for good system performance. Such a performance can be optimized by selecting operators who possess the best profile of characteristics for the job.

Human Factors Science

Human factors are sets of human-specific physical, cognitive, or social properties which either may interact in a critical or dangerous manner with technological systems, the human natural environment, or human organizations, or they can be taken under consideration in the design of ergonomic human-user oriented equipment. The choice or identification of human factors usually depends on their possible negative or positive impact on the functioning of human-organizations and human-machine systems.

The human-machine model

The simple human-machine model is a person interacting with a machine in some kind of environment. The person and machine are both modeled as information-processing devices, each with inputs, central processing, and outputs. The inputs of a person are the senses (e.g., eyes, ears) and the outputs are effectors (e.g., hands, voice). The inputs of a machine are input control devices (e.g., keyboard, mouse) and the outputs are output display devices (e.g., screen, auditory alerts). The environment can be characterized physically (e.g., vibration, noise, zero-gravity), cognitively (e.g., time pressure, uncertainty, risk), and/or organizationally (e.g., organizational structure, job design). This provides a convenient way for organizing

some of the major concerns of human engineering: the selection and design of machine displays and controls; the layout and design of workplaces; design for maintainability; and the design of the work environment.

Example: Driving an automobile is a familiar example of a simple man-machine system. In driving, the operator receives inputs from outside the vehicle (sounds and visual cues from traffic, obstructions, and signals) and from displays inside the vehicle (such as the speedometer, fuel indicator, and temperature gauge). The driver continually evaluates this information, decides on courses of action, and translates those decisions into actions upon the vehicle's controls—principally the accelerator, steering wheel, and brake. Finally, the driver is influenced by such environmental factors as noise, fumes, and temperature.

No matter how important it may be to match an individual operator to a machine, some of the most challenging and complex human problems arise in the design of large man-machine systems and in the integration of human operators into these systems. Examples of such large systems are a modern jet airliner, an automated post office, an industrial plant, a nuclear submarine, and a space vehicle launch and recovery system. In the design of such systems, human-factors engineers study, in addition to all the considerations previously mentioned, three factors: personnel, training, and operating procedures.

- Personnel are trained; that is, they are given appropriate information and skills required to operate and maintain the system. System design includes the development of training techniques and programs and often extends to the design of training devices and training aids.
- Instructions, operating procedures, and rules set forth the duties of each operator in a system and specify how the system is to function. Tailoring operating rules to the requirements of the system and the people in it contributes greatly to safe, orderly, and efficient operations.

Human Factors Engineering

Human Factors Engineering (HFE) is the discipline of applying what is known about human capabilities and limitations to the design of products, processes, systems, and work environments. It can be applied to the design of all systems having a human interface, including hardware and software. Its application to system design improves ease of use, system performance and reliability, and user satisfaction, while reducing operational errors, operator stress, training requirements, user fatigue, and product liability. HFE is distinctive in being the only discipline that relates humans to technology.

Human factors engineering focuses on how people interact with tasks, machines (or computers), and the environment with the consideration that humans have limitations and capabilities. Human factors engineers evaluate "Human to Human," "Human to Group," "Human to Organizational," and "Human to Machine (Computers)" interactions to better understand these interactions and to develop a framework for evaluation.

Human Factors engineering activities include: 1. Usability assurance 2. Determination of desired user profiles 3. Development of user documentation 4. Development of training programs.

Usability assurance

Usability assurance is an interdisciplinary concept, integrating system engineering with Human Factors engineering methodologies. Usability assurance is achieved through the system or service design, development, evaluation and deployment.

- User interface design comprises physical (ergonomic) design, interaction design and layout design.
- Usability development comprises integration of human factors in project planning and management, including system specification documents: requirements, design and testing.
- Usability evaluation is a continuous process, starting with the operational requirements specification, through prototypes of the user interfaces, through usability alpha and beta testing, and through manual and automated feedback after the system has been deployed.

User Interface Design

Human-computer interaction is a discipline concerned with the design, evaluation and implementation of interactive computing systems for human use and with the study of major phenomena surrounding them. This is a well known subject of Human Factors within the Engineering field. There are many different ways to determine human computer interaction at the user interface by usability testing.

Human Factors Evaluation Methods

Human Factors evaluation methods are part of Human Factors methodology, which is part of Human Factors Engineering.

Besides evaluation, Human Factors Engineering also deals with methods for usability assurance, for assessing desired user profiles, for developing user documentation and training programs, etc.

Until recently, methods used to evaluate human factors ranged from simple questionnaires to more complex and expensive usability labs.

Recently, new methods were proposed, based on analysis of logs of the activity of the system users.

Actually, the work in usability labs and that of the new methods is part of Usability Engineering, which is part of Human Factors Engineering.

Brief Summary of Human Factors Evaluation Methods

Ethnographic analysis: Using methods derived from ethnography, this process focuses on observing the uses of technology in a practical environment. It is a qualitative and observational method that focuses on "real-world" experience and pressures, and the usage of technology or environments in the workplace. The process is best used early in the design process.

- **Focus Groups:** Focus groups are another form of qualitative research in which one individual will facilitate discussion and elicit opinions about the technology or process under investigation. This can be on a one to one interview basis, or in a group session. Can be used to gain a large quantity of deep qualitative data, though due to the small sample size, can be subject to a higher degree of individual bias. Can be used at any point in the design process, as it is largely dependent on the exact questions to be pursued, and the structure of the group. Can be extremely costly.
- **Iterative design:** Also known as prototyping, the iterative design process seeks to involve users at several stages of design, in order to correct problems as they emerge. As prototypes emerge from the design process, these are subjected to other forms of analysis as outlined in this article, and the results are then taken and incorporated into the new design. Trends amongst users are analyzed, and products redesigned. This can become a costly process, and needs to be done as soon as possible in the design process before designs become too concrete.
- **Meta-analysis:** A supplementary technique used to examine a wide body of already existing data or literature in order to derive trends or form hypotheses in order to aid design decisions. As part of a literature survey, a meta-analysis can be performed in order to discern a collective trend from individual variables.
- **Subjects-in-tandem:** Two subjects are asked to work concurrently on a series of tasks while vocalizing their analytical observations. This is observed by the researcher, and can be used to discover usability difficulties. This process is usually recorded.
- **Surveys and Questionnaires:** A commonly used technique outside of Human Factors as well, surveys and questionnaires have an advantage in that they can be administered to a large group of people for relatively low cost, enabling the researcher to gain a large amount of data. The validity of

the data obtained is, however, always in question, as the questions must be written and interpreted correctly, and are, by definition, subjective. Those who actually respond are in effect self-selecting as well, widening the gap between the sample and the population further.

- **Task analysis:** A process with roots in activity theory, task analysis is a way of systematically describing human interaction with a system or process to understand how to match the demands of the system or process to human capabilities. The complexity of this process is generally proportional to the complexity of the task being analyzed, and so can vary in cost and time involvement. It is a qualitative and observational process. Best used early in the design process.
- **Think aloud protocol:** Also known as "concurrent verbal protocol", this is the process of asking a user to execute a series of tasks or use technology, while continuously verbalizing their thoughts so that a researcher can gain insights as to the users' analytical process. Can be useful for finding design flaws that do not affect task performance, but may have a negative cognitive affect on the user. Also useful for utilizing experts in order to better understand procedural knowledge of the task in question. Less expensive than focus groups, but tends to be more specific and subjective.
- **User analysis:** This process is based around designing for the attributes of the intended user or operator, establishing the characteristics that define them, creating a persona for the user. Best done at the outset of the design process, a user analysis will attempt to predict the most common users, and the characteristics that they would be assumed to have in common. This can be problematic if the design concept does not match the actual user, or if the identified are too vague to make clear design decisions from. This process is, however, usually quite inexpensive, and commonly used.
- **"Wizard of Oz":** This is a comparatively uncommon technique but has seen some use in mobile devices. Based upon the Wizard of Oz experiment, this technique involves an operator who remotely controls the operation of a device in order to imitate the response of an actual computer program. It has the advantage of producing a highly changeable set of reactions, but can be quite costly and difficult to undertake.

Problems with Human Factors Methods

Problems in how usability measures are employed include:

- (1) measures of learning and retention of how to use an interface are rarely employed during methods and
- (2) some studies treat measures of how users interact with interfaces as synonymous with quality-in-use, despite an unclear relation.

Weakness of Usability Lab Testing

Although usability lab testing is believed to be the most influential evaluation method, it does have some limitations. These limitations include:

- (1) Additional resources and time than other methods
- (2) Usually only examines a fraction of the entire market segment
- (3) Test scope is limited to the sample tasks chosen
- (4) Long term ease-of-use problems are difficult to identify
- (5) May reveal only a fraction of total problems
- (6) Laboratory setting excludes factors that the operational environment places on the products usability

Weakness of Inspection Methods

Inspection methods (expert reviews and walkthroughs) can be accomplished quickly, without resources from outside the development team, and does not require the research expertise that usability tests need. However, inspection methods do have limitations, which include:

- (1) Do not usually directly involve users
- (2) Often do not involve developers
- (3) Set up to determine problems and not solutions
- (4) Do not foster innovation or creative solutions
- (5) Not good at persuading developers to make product improvements

Weakness of Surveys, Interviews, and Focus Groups

These traditional human factors methods have been adapted, in many cases, to assess product usability. Even though there are several surveys that are tailored for usability and that have established validity in the field, these methods do have some limitations, which include:

- (1) Reliability of all surveys is low with small sample sizes (10 or less)
- (2) Interview lengths restricts use to a small sample size
- (3) Use of focus groups for usability assessment has highly debated value
- (4) All of these methods are highly dependent on the respondents

Weakness of Field Methods

Although field methods can be extremely useful because they are conducted in the users natural environment, they have some major limitations to consider. The limitations include:

- (1) Usually take more time and resources than other methods
- (2) Very high effort in planning, recruiting, and executing than other methods
- (3) Much longer study periods and therefore requires much goodwill among the participants
- (4) Studies are longitudinal in nature, therefore, attrition can become a problem.

Application of Human Factors Engineering

Before World War II, HFE had no significance in the design of machines. Consequently, many fatal human errors during the war were directly or indirectly related to the absence of comprehensive HFE analyses in the design and manufacturing process. One of the reasons for so many costly errors was the fact that the capabilities of the human were not clearly differentiated from those of the machine.

Furthermore, human performance capabilities, skill limitation, and response tendencies were not adequately considered in the designs of the new systems that were being produced so rapidly during the war. For example, pilots were often trained on one generation of aircraft, but by the time they got to the war zone, they were required to fly a newer model. The newer model was usually more complex than the older one and, even more detrimental, the controls may have had opposing functions assigned to them. Some aircraft required that the control stick be pulled back toward the pilot in order to pull the nose up. In other aircraft the exact opposite was required; namely, in order to ascend you would push the stick away from you. Needless to say, in an emergency situation many pilots became confused and performed the incorrect maneuver, with disastrous results.

Along the same line, pilots were subject to substitution errors due mostly to lack of uniformity of control design, inadequate separation of controls, or the lack of a coding system to help the pilot identify controls by the sense of touch alone. For example, in the early days of retractable landing gear, pilots often grabbed the wrong lever and mistakenly raised the landing gear instead of the flaps. Sensory overload also became a problem, especially in cockpit design. The 1950s brought a strong program of standardizing control shapes, locations and overload management.

The growth of human factors engineering during the mid- to late-forties was evidenced by the establishment of several organizations to conduct psychological research on equipment design. Toward the end of 1945, Paul Fitts established what came to be known as the Behavioral Sciences Laboratory at the Army Corps Aeromedical Laboratory in Dayton, Ohio. Around the same time, the U.S. Navy established the Naval Research Laboratory at Anacostia, Maryland (headed by Frank V. Taylor), and the Navy Special

Devices Center at Port Washington, New York (headed by Leonard C. Mead). The Navy Electronics Laboratory in San Diego, California, was established about a year later with Arnold M. Small as head.

In addition to the establishment of these military organizations, the human factors discipline expanded within several civilian activities. Contract support was provided by the U.S. Navy and the U.S. Air Force for research at several noted universities, specifically Johns Hopkins, Tufts, Harvard, Maryland, Holyoke, and California (Berkeley). Paralleling this growth was the establishment of several private corporate ventures. Thus, as a direct result of the efforts of World War II, a new industry known as engineering psychology or human factors engineering was born.

Why is HFE important to the military?

Until today, many project managers and designers are still slow to consider Human Factors Engineering (HFE) as an essential and integral part of the design process. This is sometimes due to their lack of education on the purpose of HFE, in other instances it is due to others being perfectly capable of considering HFE related issues. Nevertheless, progress is being made as HFE is becoming more and more accepted and is now implemented in a wide variety of applications and processes. The U.S. military is particularly concerned with the implementation of HFE in every phase of the acquisition process of its systems and equipment. Just about every piece of gear, from a multi-billion dollar aircraft carrier to the boots that servicemen wear, goes at least in part through some HFE analyses before procurement and throughout its lifecycle.

Lessons learned in the aftermath of World War II prompted the U.S. War Department (now U.S. Department of Defense) to take some steps in improving safety in military operations. U.S. Department of Defense regulations require a comprehensive management and technical strategy for human systems integration (HSI) be initiated early in the acquisition process to ensure that human performance is considered throughout the system design and development process.

HFE applications in the U.S. Army

In the U.S. Army, the term MANPRINT is used as the program designed to implement HSI. The program was established in 1984 with a primary objective to place the human element (functioning as individual, crew/team, unit and organization) on an equal footing with other design criteria such as hardware and software. The entry point of MANPRINT in the acquisition process is through requirements documents and studies.

What is MANPRINT?

MANPRINT (Manpower and Personnel Integration) is a comprehensive management and technical program that focuses attention on human capabilities and limitations throughout the system's life cycle: concept development, test and evaluation, documentation, design, development, fielding, post-fielding, operation and modernization of systems. It was initiated in recognition of the fact that the human is an integral part of the total system. If the human part of the system can't perform efficiently, the entire system will function sub-optimally.

MANPRINT's goal is to optimize total system performance at acceptable cost and within human constraints. This is achieved by the continuous integration of seven human-related considerations (known as MANPRINT domains) with the hardware and software components of the total system and with each other, as appropriate. The seven MANPRINT domains are: Manpower (M), Personnel (P), Training (T), Human Factors Engineering (HFE), System Safety (SS), Health Hazards (HH), Soldier Survivability (SSv). They are each expounded on below:

Manpower (M)

Manpower addresses the number of military and civilian personnel required and potentially available to operate, maintain, sustain, and provide training for systems. It is the number of personnel spaces (required

or authorized positions) and available people (operating strength). It considers these requirements for peacetime, conflict, and low intensity operations. Current and projected constraints on the total size of the Army/organization/unit are also considered. The MANPRINT practitioner evaluates the manpower required and/or available to support a new system and subsequently considers these constraints to ensure that the human resource demands of the system do not exceed the projected supply.

Personnel (P)

Manpower and personnel are closely related. While manpower looks at numbers of spaces and people, the domain of personnel addresses the cognitive and physical characteristics and capabilities required to be able to train for, operate, maintain, and sustain materiel and information systems. Personnel capabilities are normally reflected as knowledge, skills, abilities, and other characteristics (KSAOs). The availability of personnel and their KSAOs should be identified early in the acquisition process and may result in specific thresholds. On most systems, emphasis is placed on enlisted personnel as the primary operators, maintainers, and supporters of the system. Personnel characteristics of enlisted personnel are easier to quantify since the Armed Services Vocational Aptitude Battery (ASVAB) is administered to potential enlistees.

While normally enlisted personnel are operators and maintainers; that is not always the case, especially in aviation systems. Early in the requirements determination process, identification of the target audience should be accomplished and used as a baseline for assessment. Cognitive and physical demands of the system should be assessed and compared to the projected supply. MANPRINT also takes into consideration personnel factors such as availability, recruitment, skill identifiers, promotion, and assignment.

Training (T)

Training is defined as the instruction or education, on-the-job, or self development training required to provide all personnel and units with their essential job skills, and knowledge. Training is required to bridge the gap between the target audiences' existing level of knowledge and that required to effectively operate, deploy/employ, maintain and support the system. The MANPRINT goal is to acquire systems that meet the Army's training thresholds for operation and maintenance. Key considerations include developing an affordable, effective and efficient training strategy (which addresses new equipment, training devices, institutional, sustainment, and unit collective tactical training); determining the resources required to implement it in support of fielding and the most efficient method for dissemination (contractor, distance learning, exportable packages, etc.); and evaluating the effectiveness of the training.

Training is particularly crucial in the acquisition and employment of a new system. New tasks may be introduced into a duty position; current processes may be significantly changed; existing job responsibilities may be redefined, shifted, or eliminated; and/or entirely new positions may be required. It is vital to consider the total training impact of the system on both the individuals and the organization as a whole.

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Human Factors Engineering (HFE)

The goal of HFE is to maximize the ability of an individual or crew to operate and maintain a system at required levels by eliminating design-induced difficulty and error. Human factors engineers work with systems engineers to design and evaluate human-system interfaces to ensure they are compatible with the capabilities and limitations of the potential user population. HFE is conducted during all phases of system development, to include requirements specification, design and testing and evaluation. HFE activities during requirements specification include: evaluating predecessor systems and operator tasks; analyzing user needs; analyzing and allocating functions; and analyzing tasks and associated workload. During the design phase, HFE activities include: evaluating alternative designs through the use of equipment mockups and software prototypes; evaluating software by performing usability testing; refining analysis of tasks and workload; and using modeling tools such as human figure models to evaluate crew station and workplace design and operator procedures. During the testing and evaluation phase, HFE activities include:

confirming the design meets HFE specification requirements; measuring operator task performance; and identifying any undesirable design or procedural features.

System Safety (SS)

System Safety is the design features and operating characteristics of a system that serve to minimize the potential for human or machine errors or failures that cause injurious accidents. Safety considerations should be applied in system acquisition to minimize the potential for accidental injury of personnel and mission failure.

Health Hazards (HH)

Health Hazards addresses the design features and operating characteristics of a system that create significant risks of bodily injury or death. Along with safety hazards, an assessment of health hazards is necessary to determine risk reduction or mitigation. The goal of the Health Hazard Assessment (HHA) is to incorporate biomedical knowledge and principles early in the design of a system to eliminate or control health hazards. Early application will eliminate costly system retrofits and training restrictions resulting in enhanced soldier-system performance, readiness and cost savings. HHA is closely related to occupational health and preventive medicine but gets its distinctive character from its emphasis on soldier-system interactions of military unique systems and operations.

Health Hazard categories include acoustic energy, biological substances, chemical substances, oxygen deficiency, radiation energy, shock, temperature extremes and humidity, trauma, vibration, and other hazards. Health hazards include those areas that could cause death, injury, illness, disability, or a reduction in job performance.

Organizational and Social

The seventh domain addresses the human factors issues associated with the socio-technical systems necessary for modern warfare. This domain has been recently added to investigate issues specific to Network Enabled Capability (NEC) also known as Network Centric Warfare (NCW). Elements such as dynamic command and control structures, data assimilation across multiple platforms and its fusion into information easily understood by distributed operators are some of the issues investigated.

A soldier survivability domain was also proposed but this was never fully integrated into the MANPRINT model.

Domain Integration

Although each of the MANPRINT domains has been introduced separately, in practice they are often interrelated and tend to impact on one another. Changes in system design to correct a deficiency in one MANPRINT domain nearly always impact another domain.

Human Factors Integration

Areas of interest for human factors practitioners may include: training, staffing evaluation, communication, task analyses, functional requirements analyses and allocation, job descriptions and functions, procedures and procedure use, knowledge, skills, and abilities; organizational culture, human-machine interaction, workload on the human, fatigue, situational awareness, usability, user interface, learnability, attention, vigilance, human performance, human reliability, human-computer interaction, control and display design, stress, visualization of data, individual differences, aging, accessibility, safety, shift work, work in extreme environments including virtual environments, human error, and decision making.

Real World Applications of Human Factors - MultiModal Interfaces

Multi-Modal Interfaces

In many real world domains, ineffective communication occurs partially because of inappropriate and ineffective presentation of information. Many real world interfaces both allow user input and provide user output in a single modality (most often being either visual or auditory). This single modality presentation can often lead to data overload in that modality causing the user to become overwhelmed by information and cause him/her to overlook something. One way to address this issue is to use multi-modal interfaces.

Reasons to Use Multimodal Interfaces

- Time Sharing – helps avoid overloading one single modality
- Redundancy – providing the same information in two different modalities helps assure that the user will see the information

Allows for more diversity in users (blind can use tactile input; hearing impaired can use visual input and output)

- Error Prevention – having multiple modalities allows the user to choose the most appropriate modality for each task (for example, spatial tasks are best done in a visual modality and would be much harder in an olfactory modality)

Examples of Well Known Multi-Modality Interfaces

Cell Phone – The average cell phone uses auditory, visual, and tactile output through use of a phone ringing, vibrating, and a visual display of caller ID.

ATM – Both auditory and visual outputs

Early Multi-Modal Interfaces by the Experts

Bolts “Put That There” – 1980 – used speech and manual pointing

Cohen and Oviatt’s “Quickset” – multi user speech and gesture input

Worker Safety and Health

One of the most prevalent types of work-related injuries are musculoskeletal disorders. Work-related musculoskeletal disorders (WRMDs) result in persistent pain, loss of functional capacity and work disability, but their initial diagnosis is difficult because they are mainly based on complaints of pain and other symptoms. Every year 1.8 million U.S. workers experience WRMDs and nearly 600,000 of the injuries are serious enough to cause workers to miss work. Certain jobs or work conditions cause a higher rate worker complaints of undue strain, localized fatigue, discomfort, or pain that does not go away after overnight rest. These types of jobs are often those involving activities such as repetitive and forceful exertions; frequent, heavy, or overhead lifts; awkward work positions; or use of vibrating equipment. The Occupational Safety and Health Administration (OSHA) has found substantial evidence that ergonomics programs can cut workers' compensation costs, increase productivity and decrease employee turnover. Therefore, it is important to gather data to identify jobs or work conditions that are most problematic, using sources such as injury and illness logs, medical records, and job analyses.

Job analysis can be carried out using methods analysis, time studies, work sampling, or other established work measurement systems.

- **Methods Analysis** is the process of studying the tasks a worker completes using a step-by-step investigation. Each task is broken down into smaller steps until each motion the worker performs is described. Doing so enables you to see exactly where repetitive or straining tasks occur.

- **Time studies** determine the time required for a worker to complete each task. Time studies are often used to analyze cyclical jobs. They are considered “event based” studies because time measurements are triggered by the occurrence of predetermined events.
- **Work Sampling** is a method in which the job is sampled at random intervals to determine the proportion of total time spent on a particular task. It provides insight into how often workers are performing tasks which might cause strain on their bodies.
- **Predetermined time systems** are methods for analyzing the time spent by workers on a particular task. One of the most widely used predetermined time system is called Methods-Time-Measurement or MTM. Other common work measurement systems include MODAPTS and MOST.

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