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BURNOUT:
THE EFFECT OF JUNGIAN TYPE

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INTRODUCTION

This paper is concerned with a phenomenon which has recently received enormous attention from the public, the media, people professions and certain sections of academia in the United States. A word, "burnout", which was barely known at the beginning of the 70's, at least in its association with people at work, has become part of the common lexicon within a decade. To some this is simply an indication of the seriousness and pervasiveness of a real problem; to others such sudden popularity suggests it is merely the latest media-created fashionable neurosis. The working assumption underlying this paper, and my belief, is that burnout is a real and distressing problem and is not simply an old ill with a new label. Whatever one chooses to believe, it is clear that the popularity, if not faddishness, of the topic has had a strong influence on the field, and whilst the term itself is commonly known, it is variously and usually inaccurately understood.

Not all the blame however, can be attributed to the concept's popularity for even within the academic or empirical arena, the research and writing has neither been directed towards, nor has achieved, a clear grounded view of what burnout is all about. For example, most of the research has focused on correlating a specific, postulated measure of burnout with other variables, [e.g. Pines et al., 1981; Berkeley Planning Associates, 1977; Gann, 1979.], rather than on whether or not that particular measure of burnout really is referring to burnout and nothing else. The various measures and definitions used in this way in the field are quite different from each other, although each purports to relate to "the" burnout syndrome or "the" burnout process.
Another influence on the "state of the art" in the field is that, for those who "believe in it", burnout is a "real world" problem and as such draws the involvement of practitioners as well as academics. This has led to the conflict between the need to do something about the problem immediately (to create an inventory to measure burnout, for example), and the need to know more exactly what it is we are "doing something about" (to make sure the inventory really is measuring burnout, for example).

Thus both the popularity of the topic as well as the pragmatic immediacy of the orientation have influenced the development of the field. In addition, the very youth of the field means that the available literature is still small and there has been very little empirical research. For all these reasons the field remains one which is still beset with many unresolved definitional and methodological issues, and there exists considerable uncertainty about the characteristics, causes and consequences of burnout. Those who are considered the "leaders of the field" have themself been "critical of much that has been said and done in the name of burnout" (Maslach, 1982, p.30). Perlman and Hartman in a 1980 review article concluded "It cannot be overemphasised that thus far burnout has been primarily, if not entirely, a descriptive term yielding little insight into explaining its causes, prevention and cures" (Perlman and Hartman, 1980, p. 302).

Perhaps the most serious issue, within this overall state of confusion, is the fact that nobody actually knows what burnout is. This lack of a precise understanding about the true nature of this phenomenon is acknowledged. As Maslach has stated "to understand burnout, we need to know first what it is. Herein lies the major source of confusion and controversy about the concept" (Maslach, 1982, p. 30). Paine, the editor of a review book on burnout, cited "identification of burnout to be one of the major goals for
the field to adopt in the future" (Paine, 1982, p. 19). "Until this confusion over definitions is dispelled, little progress can be made in identifying causes and cures". The present paper attempts to make some headway in dispelling such confusion.

WHAT IS BURNOUT?

Burnout is both a metaphor and label, sign and symbol, but it is its evocative quality which registers. Freudenberger, who first applied the term to the occupational setting in the early 70's, has described the way he hit upon the term for the phenomenon he observed and himself experienced. "In talking to some of these people...I began to use the term "Burn Out" and each time I did, I got a profound reaction. Immediate identification." (Freudenberger, 1980, p. xvii).

Whilst this evocative quality enables a reasonable "ball park" understanding of what is being referred to, this same quality can create considerable difficulty when attempting to create a definition or to operationalize the concept. It is in the very nature of a metaphor to convey different interpretations to different people.

As Maslach has pointed out in a review article on the definitions of burnout "for some authors burnout is an internal 'fire' that consumes the person, leaving them burnt out, while for other authors the fire is external to the individual and the person is like a pot being heated up" (Maslach, 1982, p. 37). Many authors rely only on the evocative image created rather than precisely "nailing down" what is being described. Some writers rely solely on the general meaning conveyed by a dictionary. Others, like Freudenberger, use a dictionary definition although he also puts forward his own definition. He defines burnout as "To deplete oneself. To exhaust
one's physical and mental resources. To wear oneself out by excessively striving to reach some unrealistic expectation imposed by one's self or by the values of society" (Freudenberger, 1980, p. 17).

Some of the other "main" definitions in the field are that of Berkeley Planning Associates (1977) who define burnout as "estrangement from clients co-workers, job and agency," sounding very like job alienation. Pines et al. (1981, p. 3) define it as "a state of mind which frequently afflicts individuals who work with other people...and who pour in much more than they get back from their clients, supervisors and colleagues", and also as a state of "physical, emotional and mental exhaustion" (p. 15). Veninga and Spradley include behavioural symptoms in their definition: "a debilitating psychological condition brought about by unrelieved work stress which results in:

1. depleted energy reserves.
2. lowered resistance to illness.
3. increased dissatisfaction and pessimism.
4. increased absenteeism and inefficiency."

(Veninga and Spradley, 1981, p. 6)

Cherniss, in one definition, states it is "a process in which a previously committed professional disengages from his or her work in response to stress and strain experienced in the job" (1980, p. 18).

The above definitions illustrate the variation which exists in terms of breadth, the level of the phenomenon being referred to, reference to behaviours or purely to a psychological state, whether it is a process or a syndrome, etc. It is clear, also, that some definitions are making fundamental assumptions about burnout intrinsic to their definition without empirically testing those assumptions. Cherniss, for example, appears to limit burnout to professionals, implying non-professionals cannot, by
definition, burn out. Similarly, he presumes burnout is caused by stress, and that it is located within the work-sphere. One could not, according to this definition, burn out from a relationship or "way of life" as Freudenberger asserts.

Some of these definitions illustrate more clearly than others the degree to which they have been derived from the particular setting in which observations have been made (e.g., Pines, et al. and the Berkeley Planning Associates). Since Cherniss, Maslach and the Berkeley Planning Associates have focused primarily if not exclusively on human service workers as they perform their jobs, it is not surprising that their definitions reflect that setting. Freudenberger, as a practising psychoanalyst, observes his subjects away from the work sphere and has not, therefore, restricted his definition in the same way.

It should be noted that, while the definitions within the field are varied there is more commonality in the descriptions. There the reader can sense the "sameness" in the quality of the experience being described. Indeed, without the description, it is often very difficult to get an idea of what exactly is being referred to. From the definition alone of Berkeley Planning Associates, for example, one would not necessarily infer that burnout was the phenomenon in question.

RESOLVING THE DEFINITIONAL CONFUSION

The above brief overview of how burnout is presently defined has illustrated some of the issues in formulating a clear precise view of what this nebulous phenomenon is all about.

There have been a number of approaches suggested to resolve these basic definitional issues. Maslach (1982, p. 30) appears to encourage the
acceptance of a single standard definition. Perlman and Hartman (1980, p. 292), who attribute the confusion to overly simple data analysis techniques, encourage the use of more sophisticated statistical techniques, and also try to resolve the definitional confusion by performing a content analysis on all the existing definitions in order to derive an overall one for the field to adopt. Others (e.g. Shinn, 1982, p. 38) suggest the adoption of a rigorous model to guide research, using an existing definition/measure.

The approach taken in this paper, directed towards the same goal of bringing order out of the definitional confusion, is different from any of those suggested above. My view of what is the ultimate cause of the definitional problems is the existence in the field of pervasive underlying and untested assumptions about what burnout is. Because these assumptions are questionable and in need of validation, approaches based on the use of existing definitions or measures, on more sophisticated statistical techniques, or on content analysis of existing definitions will still be beset with problems since they each presume the correctness of those underlying assumptions.

Two of these underlying assumptions commonly held within the field are focused on in this paper. These are:

(a) burnout is a phenomenon primarily if not exclusively associated with "people professions."

(b) burnout is what you observe it to be.

It should be emphasized that each of the above is an assumption. They have not been empirically tested yet almost all writing and research in the field derives from them; and each of these assumptions influences the description and definition of what burnout is. The first assumption has arisen from an almost universal lack of attention to generalizability. The
second has arisen from confusion over levels of analysis and over levels of
the burnout phenomenon itself. The issue here is primarily that of construct
validity.

The definition I have chosen to test those assumptions and issues with,
and to examine its validity as a generic definition, is that of Maslach. She
defines burnout as "a syndrome of: (a) emotional exhaustion, (b)
depersonalisation, and (c) lowered productivity" (Maslach, 1982, p. 3). These
three defining dimensions are the same as those used to measure burnout in the
Maslach Burnout Inventory (Maslach and Jackson, 1981). The latter is now the
most widely used measure of burnout (Shinn, 1982, p. 64), and her definition
is widely used and quoted by other authors, (e.g. Gann, 1979) as the basis for
their own research and writing. Apart from its use and acceptance in its own
right, one major review article (Perlman and Hartman, 1980) proposes a
definition for the field to adopt which appears to derive primarily from
Maslach's own. In the light of its obvious influence in the field it is a
definition which warrants examination.

The dimension of her definition which seems most entwined in these
assumptions is that of "depersonalisation". Thus it is this "second aspect
of the burnout syndrome" on which I concentrate to answer the immediate
research question: is depersonalisation an intrinsic and generic dimension of
burnout? The answer to this question should itself shed light on what burnout
really is, this being the overarching question which the research is directed
towards.

In what follows I shall first outline the effect which these two
assumptions have had on the understanding of what burnout is, focusing in
particular on Maslach's definition. This will provide the context for the
subsequent discussion of the conceptual and methodological framework I use to examine the assumptions empirically.

**ANALYSIS OF THE EFFECT OF THE TWO UNDERLYING ASSUMPTIONS**

(a) Burnout is primarily, if not exclusively, associated with people professions, i.e. the "human services."

Maslach states that "at first burnout was considered a problem that was found primarily (if not exclusively) within the helping professions" (1982, p. 33), and appears to criticize subsequent researchers who have "expanded" the concept to other occupations. In fact, however, burnout, as it was applied to the occupational sphere, was first associated with the fields of professional athletics and the performing arts in the 1930's (Paine 1982, p. 12), and has continued to be associated with them (see William Safire NYT, 23 May, 1982). It has only been in the 1970's that the concept has been "restricted" to the "helping professions."

The majority of work done in the field in the 70's has limited itself to this occupational sphere, that of "people professions", or the "human services." Most of this work has concentrated on health-care. At the same time that most observation has been carried out in the human services, there has developed the notion that burnout itself is primarily to be found in this sphere; that such jobs are more prone to burnout than others. Carroll and White, for example, state "Burnout is especially common and severe among professionals who deliver direct care and assistance to emotionally distressed, indigent clients in public institutions or agencies " (Carroll and White, 1982, p. 46). Veninga and Spradley (1982, p. 13) call the helping professions "high risk" occupations.
However there is, as yet, no empirical evidence or convincing logical argument to support this frequent assertion. Only one study has attempted any comparative occupational analysis and the results of this did not support the assumption (Pines et al. 1981, p. 172). Are there logical a priori reasons to expect the assumption to be true, then? This is difficult to ascertain for the assertion that it is the case is not usually accompanied by a supporting argument with which one might validate the logical deduction behind the claim. The justifications which have been put forward are not convincing, however, and are themselves fraught with numerous questionable assumptions. For example, the notion that human service work is "particularly stressful" (Veninga and Spradley, 1981, p. 223) and, as a result, more likely to induce burnout, is conditioned on two further untested assumptions. First, the assumption that burnout is a stress response is highly questionable and in need of justification. Secondly, the implicit assumption that human service work is more stressful than other occupations is a moot point. As Shinn (1982, p. 72) states, "several authors have described the special stresses of human service work,...other workers like air traffic controllers and bomb squad members, also experience high levels of stress."

Thus, just because burnout has primarily been found in the human services does not prove that these occupations are more prone to burnout. All it reflects so far is that that is where most people have looked for it. Interestingly, if one looks at the work of those few authors outside the human services field, one finds that they too think "their" area is particularly prone to burnout. Levinson, for example, states "many contemporary managerial situations provide the perfect breeding ground for cases of burnout." (Levinson, 1981, p. 77)

What are the implications of this assumption? The implications have
primarily to do with generalizability. For the present purposes, the important point is the effect of this assumption on the conventional wisdom about what burnout is. What is claimed to be "the burnout syndrome" or "the burnout process" may have been fundamentally influenced by particular and specific variables salient only to that observational setting. For example, "working with people" has come to be seen as intrinsic to burnout because most authors have only looked at those situations where the work requires "working with people." But in addition to the association with "people" which has arisen from concentration on this one occupational sphere, the fact that the function in this sphere is to respond to people's needs, people's problems, "emotional demands", and involves a "social interaction" with people has led to burnout being defined or described as being intrinsically associated with or caused by emotional demands (rather than, say, mental demands), and the need to help or give (rather than, say, the need to create or to achieve). Because burnout has been defined along these dimensions, it is then assumed that in applying the concept of burnout to other arenas one still identifies burnout by these same dimensions. However, Ginsburg (1974, p. 599) in discussing the process of burnout in the "burned out executive" identifies burnout in very different ways than "emotional demands", "working with people" or the "social interaction" between two people. Instead, the precursors are described as "the crawl or climb to the top has been...so tough, tension-filled and debilitating, that once there, the base has been firmly laid for a good case of being Burned Out. Also, when finally at the top, the pressures to prove that one is the best man for the office; to put one's individual stamp as quickly as possible on the organization; to be strong, dynamic, decisive, innovative and right—all serve to produce additional tensions which in time bring on the Burned Out syndrome." Indeed, the
description of the process of burnout in executives is so markedly different one would have a very different conventional wisdom of what burnout is if the majority of research had been concentrated in that sphere. Thus, the type of "situation" i.e., human services, can be expected to have influenced the understanding of what burnout itself is. To ignore the role of the "situation" in influencing what one "sees" burnout to be, is to ignore the elementary need to establish generalisability. As a consequence, what it has been assumed to be may be not transferable to other work settings, and may also be incorrect as a picture of the true dimensions of burnout.

A related issue, arising from the predominance of research in this one field, is that there is evidence to suggest that one type of individual\(^1\) is over-represented in the human services. There is a considerable amount of evidence to support the notion that different occupations attract different types of people (Keen 1981, p. 6). This is so for the psychological types described by the typology of Carl Jung (Jung 1921), as operationalised by the Myers Briggs Type Indicator (MBTI). McCaulley, in her review article (1982, p. 327) stated "It is known...that the humanistic, enthusiastic, and insightful NFs\(^2\) are significantly attracted to the humanities, counselling, psychology and psychiatry (Barberousse, 1975; Conary, 1965; McCaulley, 1973, 1978). The sympathetic and friendly SF types tend to be attracted to

\(^1\) The means of mapping personality attributes is the Jungian typology which is operationalised by the MBTI. Appendix B provides more detail on both.

\(^2\) An NF is an intuitive feeling type and an SF is a sensing feeling type as per the MBTI.
elementary school teaching (Cage and Austin, 1979; Carlyn, 1976; McCaulley, 1973) and to bedside nursing, general practice, and patient care at professional and para-professional levels" (McCaulley, 1977, 1978). There have been numerous tests of the intercorrelations between the MBTI dimensions and other personality inventories. Of interest here, the feeling dimension of the MBTI is associated with being "tender minded on the 16PF; in terms of career it is associated with the social services, the ministry, teaching and consulting" (Carskadon 1979b).

In other words, based on previous studies, the feeling dimension as opposed to the thinking dimension is associated with those human service workers studied in the burnout field. Although the role of personality factors in burnout is a seriously neglected issue in the field, it is acknowledged by some authors that individual "personality" factors will affect the degree of burnout reaction, and coping response (Welch et al., 1982, Cherniss, 1980). The predominance of one psychological type of individual in one's sample, therefore, may influence the manifestations and dimensions of burnout seen and inferred as well as one's predisposition to burn out. Again, this raises questions about the generalizability of results to other spheres, when those notions have been derived from a setting with a concentration of one 'type' of person.

Both Maslach's definition and the instrument used to measure burn out, the Maslach Burnout Inventory, provide good examples of the issues involved. It is clear that the observations and investigations which led to these formulations of burnout were solely from the human services arena. The inclusion of depersonalization was based on a factor analysis performed on questionnaire data administered to workers in the human services. The point to note is that the items originally chosen for that factor analysis which
determined the dimensions of the definition were items directly related to human services work. These ultimately, then, prescribed and proscribed the resultant definition of burnout. To the extent that those items (and the preceding observations) are situationally-specific and not transferable outside the human services, then so also must the resultant definition be.

Testing of the dimensionality of the MBI outside the human services has not, however, been carried out. An interesting attempt to assess its generalisability was conducted by Golembiewski (1983) in an R&D setting. This study provides a good example of the effect of the untested implicit assumptions discussed earlier, on burnout research. Thus, whilst the wording of the MBI questions was altered from referring to "clients", to "work colleagues", the assumption that the relevant dimensions by which to measure burnout are still people-oriented is based on the questionable premise that it is indeed people-related reactions which are salient to burnout in such work settings as an R&D organisation. Moreover, this research did not provide a test of the generalisability of the MBI dimensions since, by using the MBI, it assumed the salience of these three dimensions in an R&D setting without directly testing their relative importance. A valid test of the MBI dimensionality in other work settings would require a similar factor analysis procedure of a range of items, to see if the same three factors emerged.

All in all, then, there are a number of reasons to question whether or in what way the human services setting has influenced the understanding of what burnout is, whether Maslach's definition and measurement index are generalizable and if they are not what does that imply about their accuracy even for the human services.
b) **Burnout is what you observe it to be.**

This assumption is usually left implicit rather than being made explicit. It refers to the tendency to equate what burnout "is" either with what it is seen or felt to be in overt behaviour, or with what can be directly inferred from such behaviour. To illustrate, even though Maslach has stated (1982, p. 32) that it is generally acknowledged that burnout is an internal psychological experience, behaviours and outcomes are included in various definitions, including Maslach's own, (i.e. lowered productivity). Even an affective dimension like depersonalization is primarily interpreted in terms of its behavioural manifestations. On a priori grounds, burnout may not be what it is observed to be for the simple reason that the "actual thing" may not itself be observable. The issue at stake is one of being clear about what level of reality or level of sensation one is assuming burnout to be and, more simply, recognizing that one is assuming a particular level. Even as an intra-psychic process, dealing solely in terms of cognitive or affective states, one also needs to distinguish between levels of reality. For example, whilst it is relatively easy to see that physiological changes such as lingering colds, gastrointestinal disturbances, may be "symptoms" of burnout, it is normally assumed that an affective or cognitive change is burnout, rather than that they might themselves be "symptoms" of burnout. In Maslach's definition, it is easy to question "lowered productivity" as a definitional component purely on the grounds that it is a behavioural outcome and not itself an "internal psychological experience". However, what of the other two dimensions: "emotional exhaustion" and "depersonalization". Might these not also be outcomes or symptoms of burnout?

If we look at other definitions, for example, is burnout intrinsically "estrangement from clients, etc." (Berkeley Planning Associates) or
intrinsically "disengagement" from work (Cherniss) or are these too, like depersonalization and exhaustion, merely outcomes of a deeper, underlying process or condition? Can one claim that the essence of burnout is at this level of reality? We need to be sure not only of what burnout is, but where it is. One of the few authors to be mindful of this issue is Meyer (1979) whose doctoral dissertation takes a phenomenological approach in trying to understand the "what" and "where" of burnout. What emerges from his research is a view of burnout as a "two-stage process". It was during the data-collection process that he first noticed the distinction between burnout as something beginning "inside" but manifested as a "felt experience of burnout" (p. 63). What is common to all his interviewees is that their explanations of what burnout means to them are "only descriptive observable symptoms of burnout. These responses do not fully address the meaning of the concept, its causes, or the developmental course of the phenomenon."

Thus most professionals, when viewing burnout, are only aware of their own reactions: "feeling overwhelmed", "anxious" or "fatigued" (p. 101). However, what is also clear is a stage preceding these reactions. This first stage, termed an "incubation period", is unconscious. Meyer asserts that it consists of a re-socialization process or an interaction between the individual's personality and the organization. The correctness or otherwise of the substantive nature of this incubation period does not matter here so much as the very existence of some such process. (The substantive nature Meyer attributes to it may have been influenced by the characteristics of his own sample, who were all human service workers, and his apparent assumption that burnout is a job-focused phenomenon.) This unconscious incubation period, involving a form of inner psychic conflict, then results in a "reaction", the
second stage of the burnout process. This is an awareness stage, "when the worker is consciously aware that "something is going on." This something is manifested by the symptoms referred to by the individuals throughout this study as burnout" (p. 101).

The overwhelming majority of authors in the field have defined and described burnout solely in terms of Meyer's "reaction stage", as the previous section on definitions in the field illustrates. His research suggests the need to examine further whether this stage is indeed preceded by an unconscious stage or, even further, whether burnout is only that preceding stage. In the present study this means that any affective sensation, such as depersonalisation, cannot a priori be taken as being a dimension of burnout without examining if there is anything going on underneath or preceding that sensation.

Leaving aside the question of whether burnout is partly or even wholly something underlying the affective, cognitive and physiological reactions, there remains another major source of confusion in the literature arising from the lack of distinction being made between the level of measurement and the level of the phenomenon.

Consider the methodology used to establish depersonalization as a "definitional" component of burnout. Depersonalization emerged as one of three factors with an eigen value greater than one from a factor analysis performed on 47 items. These three factors were then taken to be the dimensions with which to measure burnout with the MBI and also the defining dimensions of the burnout syndrome. A number of points need to be made about this methodology.

The form of factor analysis used by Maslach is an exploratory device, not something which can be taken to provide a direct reflection of reality.
It is not in the power of factor analysis to do so. At best, it is a means of ordering items into statistically-related categories. These categories are not necessarily in the same order or level of reality as the phenomenon itself; they may simply be a way of ordering at the symptom level. The factors which emerged are constrained to the nature or level of the phenomenon addressed by the original questions. Whether this really is the level at which burnout "is", is an empirical question, and one not solvable solely by a methodology of factor analysis. This is illustrated further by considering the use of a cut-off point of an eigen value greater than one. One wonders what the scree test (Gorush 1974), an alternative criterion, would have indicated; that there should have been only two factors and, hence, there would only be two "key" dimensions of burnout not three? The point is that either criterion is arbitrary and that what emerges from using either cannot be treated as proven or factual.

Thus, both the arbitrary nature of the data analysis technique and the original inclusion of items, precludes assuming the definitiveness of what emerges. In addition, care must be taken in claiming support for what burnout is by support for a measurement index of burnout, such as the MBI. For example, the use of dimensions of emotional exhaustion, depersonalization and lowered productivity may be able (statistically) to indicate who is more or less burnt out. This does not mean those same dimensions necessarily constitute the phenomenon itself.
OVERALL CONCEPTUAL FRAMEWORK.

The above discussion has indicated the way in which the two assumptions have influenced the understanding of what burnout is, particularly with reference to Maslach's definition. To the extent that they are invalid, then the derived understanding of burnout may also be. On logical a priori grounds I have tried to establish that there are sound reasons for suspecting their validity, and in the process of doing so, raised a number of questions which need to be answered. In the light of the preceding arguments, it would seem inappropriate to mount a study of burnout using any of the existing measures or definitions of burnout which are based on the above questionable premises.

What I have chosen to do, instead, is begin with a heuristic tool through which burnout can be gauged. There is no presumption that I know, at the outset, what burnout itself really is. The point is, instead, to use this indicator of burnout as an exploratory tool to find out more about what it really is. Since for reasons elaborated in the next section, this tool enables identification of burnout in any sample, it is possible to use it to assess whether other postulated manifestations or symptoms of burnout are present in my own sample, thus testing the generalisability of those postulated dimensions or symptoms. In particular, it will enable testing of Maslach's claim that depersonalisation is a defining dimension of burnout. The concept of depersonalisation is, in turn, being used as another heuristic device with which to examine the assumptions common to the whole burnout literature.

The means by which I test the generalisability of depersonalisation is the Psychological Type Theory of C. G. Jung, and the instrument which
operationalises that theory, the Myers Briggs Type Indicator. With this indicator, a sample of respondents who are measured on burnout can be divided into different Jungian types to see if depersonalisation is equally relevant across types. In order to do this it was decided to choose a sample which would differ from the human services both in terms of the 'situation', and the predominant Jungian type. The sample chosen, mid-career MBA's, were clearly not working in a human services or "helping" environment; they were not concerned with helping people in need, nor was there any social interaction with "recipients". Further, as business school students they were expected to be, and proved to be, predominantly 'thinking' types rather than 'feeling' types, in terms of the MBTI (80% of the sample were 'thinking' types; roughly the same as in the MBA population as a whole). Thus the difference in 'situation' and the different concentration of psychological types enables examination of issues of generalisability.

This in turn enables examination of the assumption concerning the level at which the burnout phenomenon is supposed to be. A dimension or manifestation of burnout which pertains to all individuals irrespective of their type will say something very different about the phenomenon than a manifestation which varies depending on the type of individual experiencing burnout, for the latter is more likely to be a response whose nature is mediated by qualities within the individual, rather than being intrinsic to burnout. The aim of this part of the research is key. It is to edge more closely to the common essence of burnout by examining whether supposedly intrinsic dimensions are simply symptoms applying to some individuals and not others.

Overall, then, this research takes an exploratory approach to uncovering what burnout really is. The necessary limitations in scope of the present
paper has meant that it has only been possible, thus far, to concentrate on what burnout can not be stated to be rather than what it can be stated to be. In view of the need to go back to basics and begin again, this can be seen as a necessary first step.

METHODOLOGY

(a) Tools of Analysis

(i) The Depletion Index.

The heuristic tool mentioned above, which will be used to gauge burnout, is an index of the most generally agreed element of burnout, i.e. the sensation of depletion of energy, chronic exhaustion or fatigue. It does not matter at this stage whether we consider this energy depletion to be an intrinsic core of burnout, a means of measuring it or a symptom of something deeper. The point is that this element can be used as a key indicator of burnout and thereby enables us to test for a number of supposed other elements of burnout. The reasons why this depletion of energy can serve this function are:

(a) the dimension of burnout for which there is most definitional agreement is this energy depletion. (1). Irrespective of the adequacy of these definitions as "definitions", it is still important that most refer to the exhaustion/depletion as a key component (see Khalsa (1978), Collins (1977), Freudenberger (1980), Pines et al. (1981), Mitchell (1977).

1 This is also stated by Maslach (1982, p.32) in her overview of definitions.
(b) Aside from definitions, I know of no author who has described burnout without mention of this feature of depletion or exhaustion, which may be termed "inability to mobilise" oneself as per Potter (1979), or something similar. Maslach (1982, p.32) states that the exhaustion is also described as wearing out, loss of energy, depletion, debilitation and fatigue. Although sometimes this exhaustion is a physical one, more often a psychological or emotional exhaustion is described as central to burnout.

(c) Most important, authors outside the human services field include energy depletion as a key dimension in their discussion. (Collins (1977), Mitchell (1977), Freudenberger (1974, 1980), Veninga and Spradley (1981).

(d) It is my experience that the key term which will identify to people the state of burnout is to indicate the depletion/exhaustion.

(e) Other "key" characteristics of burnout are derived directly from the notion of energy depletion. In this I would include the common notion of it being a "struggle to get through the day".

(f) It is also usually cited as the first or best indication. Freudenberger states "one of the surest ways you can tell if you're burning out is to look at your energy level. If it is noticeably lower than it used to be something is wrong." (Freudenberger, 1980, p.43). Veninga and Spradley (1981) also cite "depleted energy reserves" as one of the first consequences of burnout.

In sum, to describe someone as "burnt out" is to describe that person as severely exhausted with no energy to face the day irrespective of any other
additional characteristic or attribute which may also be included. In the delightful words of the Tubesings (1982, p.156) burnout is a "personal energy crisis". Indeed this notion of burnout underpins their whole approach, leading them to consider "energy conservation or replenishment" and "personal energy spending patterns" as ways to understand the phenomenon.

At the experiential level, then, what appears to be the most crucial element, irrespective of situation or type of person, is this personal energy crisis. My belief, and working assumption, is that this is burnout's key trademark which, if not present, means we do not have a case of burnout. It is a necessary condition to identify someone as burned out (or burning out) and it may turn out to be a sufficient condition. This is not to assume that it is a defining element; it may or may not be. (Note that in Maslach's schema, depersonalisation follows from what is termed "emotional exhaustion". Thus even within her schema only, an index of energy depletion or exhaustion would represent a necessary condition.)

Let us look a little closer at the notion of energy depletion, however, for it is of a particular nature and it is chronic, and unless the exhaustion being referred to is chronic then, again, we are not looking at burnout but ordinary fatigue or temporary "acute" fatigue.

Potter (1979, p.9) describes someone who is burnt out as follows, "the person cannot muster enough energy to participate in life...The vital driving force has become a whimper...The cycle rarely stops by itself." Freudenberger (1980, p.13 and p.45) describes burnout as a "depletion of the individual's resources, an attrition of his vitality, energy and ability to function", "that exhaustion seems to follow you and affect everything you touch. You go to sleep with it, you wake up with it." Veninga and Spradley (1981, p7) relate "when people talk about burning out they usually report feelings of
exhaustion, weariness, loss of enthusiasm. They feel tired when they go to bed and also when they wake up. One final illustration: Welch et al. (1982, p.6) state "one of the first symptoms of burnout is fatigue, a general all-round tiredness which carries over from work to home." This burnout-type of energy depletion is, then, chronic and all-encompassing.

What we have described above is not an ordinary type of physical fatigue which might arise from, say, too little sleep or too much physical activity. On the contrary many authors (e.g., Freudenberg (1980), Welch et al. (1982) cite vigorous physical activity as a key relief for the distress of burnout in order to physically exhaust the person. Nor can this depletion of energy be thought of as simply depression and the fact that a separate and distinct Depletion factor as well as a Depression factor emerged from the data supports this. (Refer to Appendix C. Note that the key component of the Depression factor is the idea of imprisonment, and helplessness, themes which are not contained in, or allied with, the themes implicit in the Depletion factor.) Furthermore, remedies which might normally be used to cope with ordinary fatigue, such as sleep, rest or a vacation do not work. (Welch et al, 1982, p.9). What is sometimes deemed necessary to "cure" burnout is a "life change, an altered direction." (Tubesing et al. 1980, p.156).

Why should a "depletion of energy" or "chronic exhaustion" usually require the fundamental re-structuring of attitudes or life-patterns so often advocated? Clearly we are dealing with something more than what is usually understood as "fatigue". Not only is there a depletion of energy, but this persists and, moreover, persists in spite of attempts to re-charge the batteries through rest. In other words, the peculiar type of depletion of energy associated with burnout is peculiar not just because it is chronic but because of the seeming difficulty in renewing one's energy. Why does rest not
relieve the fatigue? It is necessary to emphasise the non-renewal aspect of the depletion of energy for it is this which makes the depletion chronic and is the main way of distinguishing it from other phenomena. (In this regard it is interesting to note one recent doctoral dissertation (Metz 1981) was based on the notion that burnout and renewal are two ends of a continuum and her measure (self-report) of degree of burnout/renewal was this continuum).

To operationalise this notion of depletion, a Depletion Index was constructed. This reflected the themes of exhaustion and non-renewal of energy and can, therefore, be taken as an index of the peculiar chronic fatigue of burnout. The items contained in the Depletion index were "degree of exhaustion experienced", "degree to which rest or vacation relieved any tiredness", "severe energy fluctuations", and "degree of exhaustion upon waking". The index provided a raw score between 4 and 20, which was rescaled to a range of 1 to 5. The mean for the sample was 2.64, and the standard deviation .965. Construction of the index is discussed more fully in Appendix C. This Depletion Index was then applied in the data analysis which will be discussed in subsequent sections.

ii) Personality Indicator.

The MBTI, and the Jungian theory of Psychological Types from which it was derived, is a means of describing an individual and of distinguishing between individuals. As an operationalisation of that theory, the MBTI was developed in the 1940's through the 1960's by Isabel Myers and has been continuously refined since then. A vast literature is associated with it, and a data base of 75,000 subjects was built up from 1970-1976. The MBTI is a self-report questionnaire consisting of 166 forced-choice questions. Results are reported in terms of preference scores for one of each of the following pairs; either extraversion or introversion; either intuition or sensing;
either thinking or feeling; and either judging or perceiving (refer to Appendix B for a description of these functions and attitudes).

The strength of the preference is shown by the numeric score between 1 and 67 corresponding to that item-pair, the stronger the preference the higher the score. Thus, one may be scored as, say, an introvert, or I (the "letter" part of the score) with a score of 59 (indicating a strong preference for introversion relative to extraversion). Note that intuition is referred to by the letter N, to distinguish it from introversion.

In general, the MBTI has adequate reliability and validity, and the type theory has adequate phenomenological evidence, to support the use of the instrument as both a means of description and a means of distinguishing between individuals. (These issues are discussed more fully in Appendix B).

In contrast to assessment of a single trait (e.g., "authoritarianism" or "flexibility") which provide only a limited understanding of the psyche, the MBTI provides a much richer and broader profile of the whole psyche by mapping a complex and dynamic interwoven set of qualities. Further, whilst other standard personality test inventories such as the MMPI or CPI provide information on more than one trait, configural analysis of profiles has no theoretical base and is still largely an individual subjective art. The MBTI, however, is based on a theoretically strong conceptual framework; that provided by Carl Jung whose theory was itself derived from 20 years of clinical experience. It has been described by authors applying the theory to organizations, as "the most comprehensive and fruitful description and system of personality types that we know of" and as "a landmark in the history of man's attempt to understand himself" (Mitroff and Mason, 1980, p.6).

Phenomenological evidence for the existence of types as postulated by Jung has been provided by a number of authors (Gorlow et al. (1966); Ball (1968); Stevenson (1939); Bradway (1966); Richek (1968).
It is important in a field such as this to gauge psychic (or personality) factors which are pre-dispositional and not those which may be merely a reflection of, or a product of, the burnout experience. Also, in view of the sensitivity apparent in the literature to attributing burnout to be the "fault" of the individual, or something associated with "bad people", it was desirable to have a non-evaluative indicator. This sensitivity seems to have precluded serious study of the role of individual factors, or what the individual brings to the burnout experience, and the presumption has been that situational factors will be the paramount, if not the sole, cause. In spite of claims that "research" suggests that the "situation" is more important than the "person" (Maslach 1982,p.10), research of this issue has been negligible and inconclusive.

The MBTI categories are both non-evaluative and map pre-dispositions. To deal with the former, the MBTI and the Jungian type theory are seductive in their emphasis on valuing each type or quality, rather than either implicitly or explicitly attaching negative and positive connotations to compare the personality dimensions discussed. "Each person is classed in positive terms, by what he likes, not what he lacks. The theory attaches no prior value judgement to one preference as compared with another but considers each one valuable and at times indispensable in its own field" (Myers 1962, p.3). The only study I am aware of concentrating on the role of personality factors in burnout (Gann 1979) used Loevinger's ego-development scale, which has implicitly and explicitly an evaluative quality to it (and could also be criticised for being ethnocentric). The highest ego levels have the implicit connotation of being "better" and are usually interpreted explicitly as being better and/or a sign of "mature development". In Jung's typology, no type, no function, and no attitude is either explicitly or implicitly "better" than any
other. There is no notion that people "should" be a particular quality, only (perhaps) that they "should" be their own quality, whatever that may be.

The other feature of the MBTI is, to me, the most important. This is that it maps pre-dispositional attributes and not those which would be the outcome of the burnout process. Both attitudes and functions are considered "universal" (i.e., not culturally-bound or situationally-bound), and were chosen by Jung for precisely that quality, i.e., "a form of psychic activity that remains theoretically the same under varying circumstances" (Jung 1971, p. 547). The extraversion and introversion attitudes are often considered, and were by Jung, to be in some sense "innate" and rarely changed. The functions are considered to be basic psychic functions in the same way that digestion and breathing are basic physiological functions. They are, theoretically, independent of contingent events. Support for the idea that one's most developed attitude and functions change little even under extreme circumstances is provided by McCaulley (1982, p. 318). As far as the Cranfield MBA is concerned Chilmeran (1981) found that from the beginning to the end of the MBA, there was no significant change in either the preference or the strength of that preference (with the exception of the Judging-Perceiving axis). In any event, the MBTI was administered to the students in November 1981, whilst the burnout data were collected in July-August 1982. There is, therefore, sufficient support for the assumption that Jungian type remained unchanged during this period, and that scores on the MBTI could not be seen as a product of the burnout experience but, instead, were either predispositional or, at least, antecedent.

Gann's study (1979) using Loevinger's ego-development scale and an Adjective check list, provided a personality profile with dimensions described as being "associated" with the burnout dimensions. These were, however,
interpreted as meaning that lower ego-level subjects would be more prone to burnout. Further, Maslach uses Gann's results to describe a burnout-prone individual, i.e "a portrait of the provider who is almost predestined for problems, emerges from these research results" (Maslach, 1982, p.62). To illustrate: a burnout-prone individual based on Gann's results, is one who is, amongst other things, "fearful of involvement". However, in describing how burnout occurs, Maslach also states "a person gets overly involved, over extends him or herself...(the) response to this situation (and thus one aspect of burnout) is emotional exhaustion...the result being that individuals detach themselves psychologically from any meaningful involvement with others" (Maslach 1982, p. 3) (my emphasis). Thus, there is some question whether the personality indicators used in Gann's study are not simply mapping characteristics of the individual which are an outcome of the burnout experience and, hence, cannot be used to illustrate the role of personality factors in the burnout process. A further illustration is Maslach's description of the burnout-prone individual, again based on Gann's study, which depicts such an individual as one likely to treat clients in "depersonalized and derogatory ways". Further, the individual "does not feel a sense of personal accomplishment and effectiveness" (Maslach 1982, p. 63). These two, depersonalization and a reduced sense of personal accomplishment are, however, two of the defining dimensions of burnout which follow on from emotional exhaustion. Yet they are here being used to describe personality factors which precede the burnout experience. Not only are the results of this difficult to interpret but, on balance, such personality profiles cannot be seen as indicating characteristics which are brought to burnout. The MBTI can be assumed to have mapped such characteristics.
Research Design

The Sample

The sample chosen was the 1981/1982 intake of MBA students at Cranfield School of Management, England. The MBA is an intensive twelve-month one (held in four terms of eleven weeks interspersed with holidays of a fortnight's duration). It attempts to cover 80% of the two-year Harvard MBA and is closely modeled on the latter system, and is renowned, and advertised, to be a demanding if not gruelling experience. This is due to the long and concentrated study required as well as intensive interaction with others.

Some of the responses to a question asking for a description of the MBA with three words, illustrate the typical felt experience of my sample: "an assault course;" "a workaholic's dream"; "bloody hard work"; "hell, enjoyable, rewarding"; "intensive, pressurized, grinding"; "compression of experience"; "expensive, time-consuming, purgatory"; "gruelling, self-revealing"; "demanding, a slog, useful". I had completed the MBA in the previous year and had observed persons I would describe as "burnt out", if not at the point of collapse, and expected that the situation the year after would allow, if not insist on, developing some burnout victims for me to study.

The programme is structured so that everyone must take the same courses, with no exceptions, in the first half of the year (September to March). In the second half of the year a little more variation is allowed through a mixture of compulsory and elective courses. To a large extent, then, the objective situation as far as the organization and the job are concerned, is the same for each student. Two sources of variation do occur, however.

First, the intake is divided into three "streams" which exist as that stream for each of the first two terms and, secondly, individuals are placed into
study groups of six members. The latter is probably the more important for
the study group is a "survival kit" with which, by allocating assignments, one
endures the MBA. The performance and socio-emotional atmosphere of the study
groups do vary although the demands and requirements on each group are the
same.

One other factor needs to be mentioned. This concerns the "totality" of
the MBA experience for the individual. This is not due solely to the long
hours of study and preparation, a lot of which is done in interaction with
others, but also to the nature of the Cranfield environment. The business
school is located within the Cranfield Institute of Technology (although there
is very little interaction with the rest of the Institute). The small village
nearest to the campus is three miles away; the nearest city nine miles away.
The majority of students have to shift temporarily to the area for the year
and most of these reside in halls or houses on campus. As a result they not
only work closely together but, for the most part, also live closely
together. Given the demands of the MBA, there is also very little time to get
away from that environment even in the weekends, particularly in the first two
terms.

The ages of the sample ranged from 25 to 46, with an average of 31
years. Most of the sample were single (55%) and most had no children (65%).
A third were married, the remainder were either divorced/separated or in a
"living-with" relationship. The majority were men (86), with only 10 women.
This was similar to the proportion in the whole intake. Average year's work
experience was 11 years, and for the majority (72%) this had consisted of some
supervisory or managerial experience. (Over half had had at least nine
subordinates in their previous position).
(ii) Data Collection

The main period of data collection was in July/August 1982, and occurred in two stages. The first stage consisted of administration of a 210 item questionnaire which was given out to all 139 MBA's, through the school's usual "pigeon-hole" system of distributing material. The questionnaire was accompanied by a letter from me indicating that the research was about stress (they were not told that the research was on burnout), and seeking their cooperation in filling out the questionnaire. Space was provided to indicate willingness to be interviewed. A letter from one of the Cranfield faculty authorizing the study as being associated with the Organizational Behavior Group and encouraging responses, also accompanied the questionnaire. It was emphasised that the responses to the questionnaire would, however, be available only to myself. Items included ranged from the usual demographic data and work experience, a wide range (130 items) of affective, attitudinal and behavioural reactions experienced whilst on the MBA, reactions to the MBA itself, their activities and allocation of time, and the Holmes and Rahe measure of life change units. (Refer Appendix A). Of the 139 questionnaires sent out, 96 were returned, a response rate of 75%\(^1\). (One follow-up notice had been sent ten days after distribution of the questionnaire, at which time the response rate was 60%).

The second stage consisted of interviews of 2-4 hours duration with 22 respondents. The questionnaire results enabled me to choose, on the basis of a quick assessment, those who had a high level of what was called "stress", and those with a low level. Thus, I chose 10 with "high" responses, 8 with

\(^1\) One of the flaws in most of the existing studies on burnout is potential response and/or self-selection bias. Some e.g., Gann (1980) have low response rates (i.e., 25%) but the problem for most is self-selection through voluntary workshop participation.
low responses, and 4 with "medium" responses. These numbers were chosen in order to concentrate on the high and low scores, rather than medium scores, and also reflect logistical difficulties in arranging for equal numbers of those high and low scores. This does not correspond accurately with those who could be considered, on the measure I used, more or less burnt out, for my measurement index was not constructed until later. Those at the extremes did not, however, change out of being either "high" or "low" on the Depletion Index.

Two other sources of data were elicited. Exam results for those who had completed the questionnaire were provided by the Cranfield administration after consultation with the student representatives. Those results cover each of the four terms. The other major source of data was responses to the Myers Briggs Typological Indicator (MBTI) which has been discussed in previous sections. The MBTI had already been given to all students in November of the previous year and I had access to this data on an anonymous and confidential basis. Even if this data were not available, it would still have been chosen as the preferred instrument to map personality factors, for the reasons outlined previously.

EMPIRICAL RESULTS

The first aspect of the data analysis in this research is to see how the Depletion Index relates to other dimensions of burnout postulated by Maslach. In particular we are concerned with its relationship with depersonalization. In the current study it is impossible to use her client-based understanding and description of depersonalization. The focus will instead be on a wider people-based description. The concern is, then, with reactions to people, especially those reactions encompassed by Maslach's
description of depersonalisation.

Before looking at the relationship between Depletion and Depersonalization in the current data, we need to determine first of all a depersonalization index or, at least, some means of identifying and measuring depersonalization.

Finding "Depersonalization"

This raises the question of whether there is a "depersonalization" concept implicit in the data at all. There were a number of items in the questionnaire which should have reflected this concept: "concern for others' problems", "distancing oneself from others", "finding fault with others", etc. The first step was to perform a factor analysis of a multitude of items (76) in the same manner as Maslach's factor analysis, which revealed for her data the three factors relating to burnout. No clear factor emerged which could be called "depersonalization". Whilst it may be argued that the number of items in the factor analysis were too many, note that an exhaustion factor and another factor relating to worries about one's performance, the two other dimensions of Maslach definition, did emerge as clear factors. (See Table I). Furthermore, the original choice of items was based primarily on those characteristics or reactions I had found described in the literature prior to the study. Every type of reaction described in that literature I had included and, as noted above, this included items which were almost word-for-word descriptions of Maslach's concept of depersonalization.

1Oblique (direct oblimin with Kaiser normalisation) rotation was used and the scree test was employed as the cut-off criterion. This method was used throughout.

2These items are described in Appendix A, Note 3.
## TABLE I

Items loading highly and clearly on the "Exhaustion" and "Worries about Performance" Factors emerging from the Factor Analysis on all 76 items.

<table>
<thead>
<tr>
<th>Item</th>
<th>Exhaustion</th>
<th>Performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Energy Fluctuations</td>
<td>.50</td>
<td>.54</td>
</tr>
<tr>
<td>Struggle to Get Through Each Day</td>
<td>.53</td>
<td>.54</td>
</tr>
<tr>
<td>Exhausted Upon Waking</td>
<td>.65</td>
<td>.56</td>
</tr>
<tr>
<td>Feeling Exhausted</td>
<td>.77</td>
<td>.67</td>
</tr>
<tr>
<td>Neck and Shoulder Tension</td>
<td>.78</td>
<td>.73</td>
</tr>
<tr>
<td>Rest or Vacation did not Relieve Tiredness</td>
<td>.83</td>
<td></td>
</tr>
</tbody>
</table>

The range of items was then narrowed in two separate ways.

(i) First, items relating only to Maslach's three dimensions were included. Again, no clear depersonalisation factor emerged although the other
two dimensions were present. Most of the remaining factors each had as their focal theme study or performance related items, with items relating to people distributed over these other factors. The only "affective" factors related to depression, and another to anxiety.

(ii) The second narrowed-down factor analysis excluded the exhaustion and performance factors and concentrated more on purely affective reactions including those items relating to dealing with people. Five factors emerged, only four of which provided some "clean" items. (These factors could be understood as: Depression, Boredom-Cynicism, Being Unrealistic, Positive View of Life.) The fifth factor (which would have been eliminated on the scree test) related to negative attitudes towards people, such as "lack of concern for others problems", "irritability with others". However, it had no single item loading above .5, and no single item which was not also moderately loaded on another factor. It was basically an "unusable" factor. (A rough depersonalisation index was constructed with the cleanest items using the same methodology as that for the Depletion Index. The correlation between the depersonalisation index and the Depletion Index was not significant (r=.14)

The fact that no single coherent depersonalization factor could be derived raises the question whether it is a sufficiently salient issue for the MBA students (compared with human service workers). If it were salient and relevant to burnout, one would have expected more evidence of it even from using a technique such as factor analysis. It suggests that the situation from which data are derived may influence which "factors" emerge and, hence, which dimensions are seen to be relevant to the burnout experience. Using Maslach's methodology, one would have obtained a different definition of burnout from my sample. In particular one would not have found depersonalization as one of its dimensions or one of its symptoms.
The Nature of the Various Reactions to People

None of this yet sheds much light on how depersonalization relates to burnout, as measured by the Depletion Index, for I have been using the same methodological logic as Maslach primarily to illustrate a point. Instead of trying to see if depersonalization emerged from the data (and, hence, its salience as a part of burnout), obviously I was going to have to go and look for it. To do this, analysis of the data concentrated on only those items which specifically dealt with reactions to, and feelings towards, other people. In this way, even if depersonalization did not have relative salience vis-a-vis other symptoms for this sample, by looking only at these items it would be possible to ascertain the nature of the various reactions to and feelings towards people. Was there, amongst all the various reactions, that which could be encompassed by the term depersonalization? If not, then the nature of those reactions could at least be laid out. Another factor analysis was performed and four clear factors emerged each of which had two clean high-loading items which were chosen to "represent" the factor. Recall that the previous description of what depersonalization is revealed several facets of what was conceived of as a uni-dimensional construct. Strictly speaking, its meaning is that of not treating or thinking of a person as a person, but as a thing or object. However, as it is described by Maslach, it also

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1 Items "representing" each factor were as follows. First factor: "Distancing Self from Others" and "It is best to understand that people are all the same rather than different." Second factor: "Finding Fault with Others" and "Striking Back at Others". Third Factor: "Lack of Concern for Others Problems" and "Not Aware of Minor Changes in Others Appearance"; Fourth Factor: "Not Wanting to Speak to People", and "Not Caring Whether Others Like You". Item-factor loadings and intercorrelations are given in Appendix D.
includes as primary dimensions detachment, feeling negative towards, and unconcerned about, others. Each factor related to part of what Maslach described as depersonalization. The four factors were: (1) Distancing, which corresponded with detachment in Maslach's discussion; (2) Hostility, which corresponded with negative reactions towards others; (3) Unconcern, which corresponded with lack of concern for others' needs, and (4) Rejection, which corresponded with a lack of interest in others.

Whether or not these factors really do relate to what depersonalization really is, the fact remains that they reflect those qualities of depersonalization discussed by Maslach. According to her elaboration of the process and, indeed, a common view (see Cherniss 1980, p. 19) these reactions towards others follow from the exhaustion experienced. Irrespective of causality, depersonalization is nevertheless considered to be associated with exhaustion.

Is this the case in the present sample? Table II sets out this association for the four factors. Two features of these results need to be discussed; first, the diversity of the associations and secondly, the size of the associations.

(1) Contrary to the conventional wisdom, only two of the four factors are positively (and significantly) associated with the Depletion Index, i.e. Distancing and Hostility. The remaining two factors, Rejection and Unconcern, have a low or moderate negative association. In the context of the Depletion of Energy, then, the last two factors are more in the nature of "personalization" factors, not "depersonalization" factors. This was, incidentally, supported by the interview data I obtained where it was clear that, for some, their "personal energy crisis" had resulted in "greater awareness of their own and others feelings", and "greater sensitivity towards
others" Why, however, should the data show an increased concern for or need for others the more depleted of energy one becomes?

Table II

<table>
<thead>
<tr>
<th>Distancing</th>
<th>Hostility</th>
<th>Unconcern</th>
<th>Rejection</th>
</tr>
</thead>
<tbody>
<tr>
<td>.25</td>
<td>.25</td>
<td>-.15</td>
<td>-.31</td>
</tr>
<tr>
<td>(p&lt;.01)</td>
<td>(p&lt;.01)</td>
<td>(p&lt;.06)</td>
<td>(p&lt;.001)</td>
</tr>
</tbody>
</table>

n = 95

(Note that from here on, due to the negative relationships between Depletion and the Unconcern and Rejection factors, I have relabelled these two, Concern and Need for Others respectively.)

Before uncovering the reason for these diverse relationships between aspects of what Maslach calls "depersonalization", and the Depletion Index, two points about the fact of these diverse relationships need to be made. First, support was not obtained for the claim that burnout, as measured by energy depletion is, by definition, associated with depersonalization, for if this were the case the negative relationships with the Depletion Index should not occur. Secondly, the nature of the construct referred to as depersonalization was, in this data set, and may be elsewhere, more complex than the uni-dimensional one discussed by Maslach. Far from depersonalization being one common reaction following upon the "exhaustion" of burnout or, the term used in this paper, the depletion of energy, the variety of reactions indicated by the existence of four separate factors with differential relationships with Depletion, could not be conceived as parts of the same whole functioning together.

(ii) It is also interesting to look at the size of the associations.
Maslach had correlations of .55 to .65 between her scales of exhaustion and depersonalization, although the significance of the size of these correlations was sidestepped by her (not surprisingly, since the correlations between her third dimension of "lowered productivity" and the other two scales is very low; .2 to .3). One would, nevertheless, presume associations of at least .5 if one were to claim support for a dimension being intrinsic to what is termed by Maslach, a "syndrome". In the above Table, leaving aside the issue of negative correlations between two of the factors and the Depletion Index, even the positive correlations are unimpressive. They are not high enough to justify even the two factors of Distancing and Hostility being considered sufficiently associated with Depletion of Energy to be thought of as intrinsic definitional components of burnout.

**Interpretation of the Four Different Reactions to People**

One way in which the above data can be interpreted is provided by Cherniss (1980). The reactions assumed by Maslach under the term depersonalisation are described in his framework as different types of coping reactions to the prior occurrence of "strain" in the individual, i.e. fatigue, tension. As alternative coping reactions they are not conceived of as part of a unidimensional construct. The coping reactions, in particular "withdrawal" and "hostility", are defensive reactions which provide a "psychological escape and ensure that further stress will not be added to the strain already being experienced". (p. 18). These coping reactions are conceived of as part of the burnout process, but which coping reaction is adopted is not made specific. Cherniss does not, however, allow for the "positive" coping reactions to the fatigue and tension such as were obtained with the present data. Like
Maslach, he assumes these reactions are "negative" (although functional) and also that the coping reaction is focused on people (or clients).

An alternative interpretation of the data is that the four factors do not reflect "coping reactions" to strain but are merely "responses" of the psyche. Karen Horney's theory on the different modes of psychic conflict describes three modes of response to internal conflict. Whilst these are posed as pertaining to neurotic conflict I do not think it is necessary to assume neurotic conflict is basic to burnout in order to use her theory. It may be that each of the modes constitutes simply an alternative pattern for the psyche to reveal which may or may not be due to internal psychic conflict inherent in the burnout process (and which may or may not correspond to an antecedent or outcome of neurosis). What is interesting about applying her theory is the close correspondence between the three modes of response and the four factors.

<table>
<thead>
<tr>
<th>Factors</th>
<th>Horney</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Distancing</td>
<td>Moving away from people</td>
</tr>
<tr>
<td>- Hostility</td>
<td>Moving against people</td>
</tr>
<tr>
<td>- Need for Others</td>
<td></td>
</tr>
<tr>
<td>- Concern</td>
<td>Moving towards people</td>
</tr>
</tbody>
</table>
Note that her three modes are each reactions to people and include both "positive" and "negative" reactions although such evaluative labels are not really applicable to describing her modes; they are merely different. These modes are "moving away from people" or Withdrawal, which corresponds to the Distancing factor; "moving against people" or Hostility which corresponds to the Hostility factor; and "moving towards people" which corresponds to both the Concern and Need for Others factors (see Horney, 1945). One of these modes is characteristic of each "neurotic". Thus there is a type of person for whom the Withdrawal mode is dominant, "what is crucial is their inner need to put emotional distance between themselves and others" (p. 73); a type whose mode is Hostility is one in whom "aggressive trends predominate" (p. 63), whose concern is with mastery...He becomes hard and tough [and]...sees no reason to be considerate of others" (p. 65); and the type whose mode is Moving Towards Others is one whose basic impulse is love and human intimacy not mastery. Such a person shows "a marked need for affection and approval" (p. 50), seeks association with others and shows warmth and concern for them.

Horney's characterizations may be one way of describing the different reactions to people associated with burnout, and one which accommodates both the negative and positive aspects indicated above. These modes are not, however, simple coping reactions as per Cherniss.

Thus, the four different kinds of reactions to people may be characterized or explained in several ways. The immediate question arising from the differences in reaction is, who are the people who, when Depleted of energy, react in the Distancing fashion, who in the Hostility fashion, etc? Are they different people and if so what are their characteristics? The question underlying this is: Do individual personality, or psychic, differences play a role in what behaviour manifested during burnout? The role
of individual personality factors, where they are allowed for at all, have been considered to only play a part intervening (or moderating) the relationship between objective stress and the consequent strain (or "burnout") via either the "appraisal" process of stress or the differential ability of individuals to cope with stress (Maslach, 1982, Cherniss, 1980, Pines et al., 1981, Schinn, 1980). The issue here, however, is whether individual personality plays a much greater role than merely affecting the tendency to burn out given certain stressors; in particular, the issue is whether the role extends to moderating the very manifestation of burnout itself. Only a few authors have considered this, (Welch et al., 1980 and Khalsa, 1980), and these have treated such differential manifestations as idiosyncratic or random rather than systematic. The next stage of the analysis is to examine this issue.

Role of Individual Type

The results shown in Table I revealed relatively low correlations between the four different factors and the Depletion Index. By stratifying the sample in terms of psychological type it is possible to see whether or in what degree the strength of these relationships are changed, thereby testing the moderating effect of individual psychic factors. The sample was divided into feeling and thinking types. For each type the relationship between the Depletion Index and the kind of reaction to people was assessed. (Correlational analysis only was performed due to the low number of feeling
types.) Results are reported in Table III. They indicate:

(a) Substantial differences in the association between Depletion and the kind of reaction to people, depending on Jungian type.
(b) Feeling types have, on balance, a stronger "depersonalization" reaction and thinking types a stronger "personalization" reaction.
(c) The above point indicates that the reactions to people associated with burnout are contrary to that type's dominant mode of adaptation.

**TABLE III**

<table>
<thead>
<tr>
<th></th>
<th>Distancing</th>
<th>Hostility</th>
<th>Concern</th>
<th>Need for Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>Feeling Type</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>n=18</td>
<td>.64</td>
<td>.47</td>
<td>-.04</td>
<td>.30</td>
</tr>
<tr>
<td></td>
<td>(p&lt;.002)</td>
<td>(p&lt;.025)</td>
<td>n.s.</td>
<td>n.s.</td>
</tr>
<tr>
<td>Thinking Type</td>
<td>.15</td>
<td>.20</td>
<td>.27</td>
<td>.30</td>
</tr>
<tr>
<td>n=77</td>
<td>n.s.</td>
<td>(p&lt;.05)</td>
<td>(p&lt;.01)</td>
<td>(p&lt;.005)</td>
</tr>
</tbody>
</table>

These three results will be discussed separately.

(a) The first result indicates that the kind of reaction to people shows systematic variation according to Jungian type. Whether it is assumed that this kind of reaction is a coping reaction following the strain of fatigue (as per Cherniss 1980), or simply that certain kinds of reactions to people will simply accompany energy depletion, the type of the individual clearly moderates that association. Not only does Jungian type simply qualify the strength of the association but the size of the correlations implies that, in this sample, the particular ways of reacting to people will not merely be
more associated with one type than the other, but that such reactions might be regarded as specific to one type and not the other. To put this another way, different Jungian types can be considered to reveal different manifestations of burnout, where those manifestations concern reactions to people. Insofar as this result is generalizable to other settings, it means that observed and reported reactions to people during burnout would be affected by the differential concentration of Jungian type in one's sample. A concentration of one type of person would therefore introduce systematic bias in the type of reactions to people seen to be associated with burnout (and inferred to be an intrinsic part of burnout).

This raises the issue of whether other attitudinal and/or behavioural manifestations of burnout are type-specific. If this were the case, then the various and contradictory "symptoms" (or manifestations) discussed in the literature may be reconcilable if patterned in terms of type.

This issue was explored in two ways. First, the various reactions to one's studies, retaining the thinking/feeling dichotomy, were examined. Again, the associations were strongly moderated by type. Further, the thinking types revealed, on balance, a negative reaction to studies when Depleted of energy whilst the feeling types revealed a positive reaction.

Secondly, a different Jungian-type dichotomy, the intuitive-sensing dimension, was used. Table IV illustrates the moderating effect this type dimension has on different items relating to "dealing with reality". Once again the moderating effect is quite marked and, as in the preceding cases, contrary to that type's natural mode of adaptation to the world. The fact that the pattern is, again, contrary to that type's natural mode will be discussed more later. Note that it is the intuitive who is naturally least grounded in ordinary reality, impatient with details and facts whilst the
sensing type has particular facility with such things. (Myers, 1962, p80a).

On the other hand, this moderation by type is not always present raising the question of when it does occur and when it does not. Limited analysis suggests that it occurs only with those items which naturally have differential salience to the different types. Thus, for intuitives and sensing types, this moderator effect occurred primarily with items relating to being grounded in reality, which is the main quality usually used to distinguish these two types. These same items, were not moderated by the feeling-thinking dichotomy, presumably because that dichotomy does not have the same "salience" to this "demand".

Table IV

<table>
<thead>
<tr>
<th></th>
<th>Sensing</th>
<th>Intuitive</th>
</tr>
</thead>
<tbody>
<tr>
<td>Forget meetings &amp; appoints</td>
<td>.49</td>
<td>.09</td>
</tr>
<tr>
<td>Not in control of food and drink</td>
<td>.25</td>
<td>.18</td>
</tr>
<tr>
<td>People say you are unrealistic</td>
<td>.45</td>
<td>.25</td>
</tr>
<tr>
<td>Make silly mistakes over details</td>
<td>.42</td>
<td>.18</td>
</tr>
<tr>
<td>Ignoring facts</td>
<td>.37</td>
<td>.12</td>
</tr>
</tbody>
</table>
What these results indicate is that, like the previous relationships with reactions to people, the association between the Depletion Index and a behavioural or affective manifestation is moderated strongly by type, and to a degree which suggests that the manifestation concerned is, in many cases, particular to one type and not another. This provides additional support for the notion that symptoms of burnout show systematic, not idiosyncratic, variation, that variation depending on the Jungian type of the individual. However, extensive analysis of the effect of type as a moderator of burnout symptoms, and conclusions about the extensiveness of that effect, await future research.

(b) The second main result is that feeling types show a much greater association between Depletion and "negative" reactions to people than do thinking types; indeed it is only for feeling types that a reaction labelled depersonalization could possibly be considered to be intrinsically associated with burnout. Given that feeling types are over-represented in the human services relative to thinking types, this result raises the question whether the observed association between burnout and depersonalization, and the origin of Maslach's inclusion of the latter as a definitional component of burnout, is a product merely of type-concentration rather than being a generalizable finding. Whether this is so would depend on the role "the situation" would play in affecting the data. However it is also possible that where "people" are the major source of environmental demands, that the feeling types might show an even greater relative difference to thinking types in being even more depersonalized in that setting. The answers to such questions, again, await future research.

Another issue concerns the finding that for thinking types, their reaction to people associated with Depletion was more in the nature of
"Personalization" or, at least, it could not be considered "Depersonalization". What this means is that any measure, such as the MBI, which includes depersonalization may not be able to measure burnout in a thinking type. It means that a thinking type who was burnt out may not be "picked up" on the MBI (at least on the depersonalization scale). But that someone who was not burnt out would be "picked up" on the scale of the MBI. For example, looking at the Concern for Others factor alone, in the sample as a whole this factor was negatively correlated with degree of thinking (-.33; p < .000) and positively correlated with degree of feeling (.24; p < .008). In other words, outside of the context of burnout, as measured by Depletion of energy, Concern for Others is, as would be expected, something which would be more apparent the more feeling and/or the less thinking the person was. Recall from Table III, however, that the correlation with the Depletion Index of this factor is positive for thinking types and not related for feeling types. What is going on underneath, is a type of catastrophe theory switch that occurs with degree of Depletion, as indicated in the following table.

Table V
Relationship Between Concern for Others and Depletion Index for Thinking Types

<table>
<thead>
<tr>
<th>Low Concern</th>
<th>High Concern</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low Depletion</td>
<td>21</td>
</tr>
<tr>
<td>High Depletion</td>
<td>11</td>
</tr>
</tbody>
</table>

(p = .05)

n = 56
(Low and high depletion consisted of the bottom and top thirds respectively).
What the above Table reveals is significantly lower Concern for Others for thinking types who are low on the Depletion Index, and significantly higher Concern for those high on the Depletion Index. This supports the notion that increasing Depersonalization should not be taken as definitionally related to increased burnout, as the MBI takes it to be, since the phenomenon of depersonalisation may well not only not apply to a certain type of person but may apply in the exactly opposite way to which it should if taken to be a measure or definition of burnout.

(c) The third result concerns the process of "reversion" which occurs, i.e., the finding that those kinds of reactions associated with the Depletion Index are contrary to the type's dominant mode of adaptation. Feeling types tend to be adapted to the world via their concern for people, awareness of other people and their feelings (Myers, 1962, p.80). It is the thinking type who "neglects the art of friendship and of relationship with other people", (Fordham 1966, p37). Yet, the more depleted a type gets, the more "depersonalized" feeling types are compared with thinking types. Moreover if we take account of extraversion or introversion, this reversion is intensified. For example, whilst the extraverted attitude, by definition, orients the person to the outside world of people and things, in the context of burnout, extraversion is associated with a greater degree of withdrawal. Thus, with the Distancing factor, the association with Depletion increases if the feeling type is extraverted. For feeling types as a whole, the association was .64; for extraverted feeling it is .78 and for introverted feeling the association is .40.

Note that such a result is not the opposite of what one would predict, for it is directly predictable from Jungian theory. The immediate explanation is that this "reversion" is a reflection of the lack of use, or inability to
use, the conscious function upon which one has come to rely and, indeed, has come to use as a primary tool to deal with one's world. (Appendix B discusses the Jungian theory behind this.) The preferred mode of adaptation to the world (whether feeling or thinking) is, in some way, being affected by the experience of burnout. Not only does one become less able to use the more adapted function but one begins to use the opposite mode of adaptation more. Note that there is no indication here of the facility to use that "opposite function" although in theory it should be far more "difficult" to use and less in one's control. For example, it would be predicted that the actual expression of the thinking type's new "Concern for Others" would not be as harmonious or at ease as such expression of concern by the feeling type. Quality of use is not important here, but changed salience of an issue (e.g., people, ideas), is. Clearly, what is happening is that what was previously a conscious function (and, hence, subject to the direction and will of the ego) is no longer conscious, and what was previously an unconscious function is now surfacing and being used. This would, in itself, deprive the psyche of energy, i.e., a "stoppage of libido" occurs. (Horney also allows for this reversion to take place in her theoretical framework, for the two types, compliant and aggressive, each involve the suppression of the other in their psyche. The compliant type tries to suppress the hostility for others that they do in fact feel, albeit primarily unconsciously, and vice versa for the thinking type. Under certain circumstances, the suppressed material can erupt.)

To relate the above theoretical explanation to the specific results achieved in this study, the consequence of the feeling function sinking into the unconscious is an inability to relate to the world in the usual concerned pleasant way, as well as changing the valuation placed on things. The
unconscious thinking function, to the degree to which it had previously been actively repressed, may emerge in a more disruptive, more hostile or generally negative way. Previously negative feelings towards others, for example, which could not be allowed to be released because of the feeling function's desire to create harmony may, with that feeling function no longer in control, erupt or otherwise be released. (Note that this is not inevitable, for a developed feeling function is not definitionally the same thing as "positive feelings". A developed feeling function does mean that both positive and negative feelings can be adequately with. However, it is also true that, because the feeling function has as an aim the creation of a harmonious atmosphere, it tends to be associated with positive feelings.) Along with this, the psyche will be forced to rely on the thinking function which will tend to introduce a more positive attitude towards ideas (if introverted) or facts (if extraverted).

Similarly, the thinking type loses the use of the thinking function, which previously adapted that individual to the world through the principle of logic and abstract rationality rather than the principle of subjective valuation, and is forced to rely more on his or her feeling function to deal with the world; thus showing both a lower value placed on what was previously held important (ideas, facts, studying) and a greater recognition of feelings and other people. (Note that on the basis of this reasoning a thinking type in the human services, would remain more "personalised" or less depersonalised than a feeling type, irrespective of the change in setting).

Either way one has a catastrophe model of the psyche involving a switch in kind not just degree in how that psyche functions. It is important that inability to rely on the function which one has been accustomed to use for survival and success in one's environment is itself a distressing experience.
provoking feelings or helplessness and entrapment, that getting through each day would be a struggle, one would feel unable to perform as well as previously, would lose a sense of one's priorities, have difficulty in accomplishing routine activities, etc., all feelings which are frequently described as intrinsic to the burnout experience. This raises the question of whether such sensations are only the product of loss of use of one's conscious functions and it is the latter which is the underlying phenomenon causing such sensations, not burnout per se.

Explanation of Reversion

The next question is, then, what causes this Reversion, or loss of use of the conscious function, in the first place. The sinking of a conscious function into the unconscious can occur via three mechanisms. One is when the system is simply run down or "over-tired". This would suggest that burnout, as indicated by a chronic depletion of energy, would itself simply cause the process I have labelled reversion (see (i) below). The second mechanism, which may operate in addition to the above, or on its own, is called "enantiadromia" by Jung. This is "the emergence of the unconscious opposite in the course of time. This characteristic phenomenon practically always occurs when an extreme one-sided tendency dominates conscious life" (Jung, 1960, p. 262). It means that one has been relying too much on one function and created an imbalance in the psyche which needs to be corrected; redressing the balance requires the sinking into the unconscious of the conscious function. As indicated, this would in itself lead to a stoppage of libido, i.e., the psyche is deprived of energy (ii). It is also possible for this process of enantiadromia to be set off if energy depletion itself led one to over-rely on one function, (iii). These possible mechanisms may be depicted as follows:
(i) Energy Depletion → Reversion
(ii) Enantiadromia → Reversion → Energy Depletion
(iii) Energy Depletion → Enantiadromia → Reversion

The idea of imbalance being a part of, or cause of, burnout is supported by the fact that hours spent studying is not, for any type, related to Depletion; yet hours spent on leisure is significantly negatively associated, ($r = -0.20; p < 0.026$) irrespective of type. This can be interpreted as indicating that individuals need to use their energy in a different way of "being" in the world, as could be expected to be the case in leisure activity. (Although not necessarily so, for one could pursue leisure which also requires the psyche to use the "normal" conscious functions).

Summary of Main Results.

The preceding results have covered a lot of ground. The point of this section is to refer back to the original two basic assumptions, or themes, and summarise the results contained in the foregoing pages in the light of those assumptions.

(i) using the same methodological technique and logic as Maslach it was not possible to obtain a real depersonalisation factor in this particular sample. This raised the question whether depersonalisation is as relevant to this particular setting as it to the human services.

(ii) the reactions to people associated with burnout were various and did not correlate in the way which would be predicted if depersonalisation were truly intrinsic to the burnout experience, nor as had been obtained on human service samples.

These two points both raise the question whether depersonalisation is a situationally specific concept and hence whether it is generic to burnout.
The next two points raise the issue not merely of whether depersonalisation is \textit{situationally} specific but whether it is also \textit{type} specific.

(iii) those reactions to people which could be called depersonalisation were associated primarily only with "feeling types". Since feeling types predominate in the human services, this raises the issue of whether it is type concentration which has led to the notion that depersonalisation is a part of burnout.

(iv) thinking types react, on balance, with a greater degree of "personalisation". This means they would be incorrectly gauged in terms of degree of burnout where depersonalisation is included as a measure of burnout.

Thus the concept of depersonalisation may not be applicable across either all situations or all individuals and, hence, may not be generic. Aside from just the concept of depersonalisation, the results showing the degree to which other manifestations associated with Depletion were moderated by type, suggest that other affects or behaviours seen to be a part of burnout may be simply a product of type concentration in the particular observational setting.

(v) The above discussion has indicated that the manifestations of burnout are moderated by type, where those manifestations are affective sensations or attitudes, such as depersonalisation, or the various attitudes associated with studying, or the intuitive-sensing dimension. Insofar as these manifestations are not common across individuals then they must be interpreted more in the light of \textit{symptoms} of burnout, and not the "essence" of burnout. This implies that burnout cannot be wholly defined at that level of reality.
CONCLUSION

This study has been directed towards examining some of the main underlying assumptions in the burnout literature. My own assumption for doing this rather than proceeding with more methodologically sophisticated analysis using an existing measure and/or definition of burnout, was that present work in this field, and any which builds on that, is restricted by the validity of the underlying assumptions. A further assumption of my own, which was the driving force behind this research, was that there was "something wrong", something myopic, about almost everything I had read on burnout pertaining to the human services, and this hunch was given support when reading material from outside the human services, supposedly describing the same phenomenon. One way of resolving this was to analyse the generalisability of existing notions of what burnout is. The results of this analysis indicated there were severe problems in applying the supposedly intrinsic dimension of burnout called "depersonalisation" to my sample of post-experience MBA's, suggesting that it may not be a generic dimension of burnout at all.

It is necessary to go beyond just this concept of depersonalisation, however, for this was used as an illustrative example of possible problems in the field as a whole. What the results in this study call into question are the conceptual and methodological means by which a definition of burnout was first derived, not just the accuracy of the definition itself. Since those means are common throughout the field, logical deduction suggests that similar problems would occur with other supposedly intrinsic and generic dimensions of burnout. This deduction is based primarily on the fact that present understanding of burnout derives, in each instance, from one occupational
sphere. The present study has suggested the serious definitional problems arising from such sampling bias. What this implies for future research is the need for exploratory research across different occupational settings in order for an emergent understanding of burnout to be more broadly based and broadly derived.

There is a further aspect to this study, however, apart from the concern with the generalizability of existing definitions. Examination of the mechanisms perceived to underly the difficulty in transferring the notion of depersonalisation to the current sample led to some faint glimmers of insight into what burnout might really be. In order to explain why or why not certain affective or behavioural states, in particular depersonalisation, occurred along with burnout, it was necessary to venture to a deeper, more unconscious realm. Irrespective of the heuristic or conceptual device used to map out this realm, it seems clear that burnout cannot be understood without resolving what it is that is really going on "down there" underneath the layers of affective sensation wherein depersonalisation lies.
BIBLIOGRAPHY


Bradway, K. (1968) "Jung's Psychological Types". Journal of Analytical Psychology. 9(2)


Cobb, S. (1973) "Role responsibility: The differentiation of a concept". Occupational Mental Health, 13(1).


French, J. R. P. (1973) "Person role fit". Occupational Mental Health, 3(1)


Horney, K. (1945) Our Inner Conflicts.


Jung, C. G. (1921) Psychological Types.


Lazarus, R. S. (1967) "Cognitive and personality factors underlying threat and coping" in Psychological Stress, in Appley, M. H. and Trumbell, R., (eds.).


Kahn, R. L. (1973) "Conflict ambiguity and overload: Three elements in Job Stress". Occupational Mental Health, 3(1).


McCaulley, M. H. (1978) Application of the Myers Briggs Type Indicator to Medicine and Other Health Professions. Monograph. CAPT.


Stricker, L. J. & Ross, J. (1964) "Some correlates of a Jungian personality Inventory." Psychological Reports, 14.


Appendix A

The Questionnaire

The items on the questionnaire concerned the following:

1. (a) demographic items such as age.
   (b) previous job
   (c) allocation of time
   (d) reasons for doing the MBA and characterization of the MBA and "yourself" (open-ended).
   (e) types, degree and circumstance of tiredness.

2. (a) twenty questions covering various reactions to the MBA e.g. "you have learnt new skills"; "your skills have been underutilized"; "have you been satisfied with the feedback on your performance", etc. These were rated on a 5 point scale from "Not at all" to "Very".
   (b) An open-ended question on the benefits of the MBA

3. The main section of the questionnaire consisted of 76 items covering frequencies in which certain sensations or behaviours were experienced on the MBA. These were all rated on a five point scale from Never to Always. These items covered physiological symptoms such as headaches, lingering colds, and a wide range of affective, cognitive and behavioural symptoms. Affective items included, for example, "marked mood swings", "depression", "anxiety", etc. Cognitive items included such items as "have new and original ideas"; "find your brain giving out on you"; "make silly mistakes over details". Performance-related items included "pleased with performance", "working harder but accomplishing less". Interpersonal items included "get put upon by others because you can't say no", "complimenting others", "interrupting others". Items
concerning being able to deal with reality included "forgetting meetings, appointments", "have minor accidents around the house or in the car", "bump into things". Other uncategorisable items were also included.

Note that this section rated only frequency of experience not intensity. Maslach includes both types of scale on the MBI. I originally had both in my own but in response to complaints about repetition in preliminary testing of the questionnaire, I decided to retain only the frequency dimension as this was felt to encompass both dimensions. (This preliminary testing was of two past MBA's and one previous lecturer at Cranfield School of Management.)

4. A smaller set of 30 questions asking about the change in various items over the course of the MBA was included. These items were rated on a five point scale from greatly reduced to greatly increased. They covered similar themes to those in the previous section but the wording was generally altered.

5. 5 items concerning degree of mental rigidity or flexibility.

6. The Holmes and Rahe measure of life-change units.

7. 10 items testing dominant Jungian function.

139 questionnaires were given out and 96 were returned. Of these 95 were usable and the 96th one was usable for any analysis not involving Jungian type since MBTI data for that person were not available.
Appendix B

The MBTI and Jungian Theory

The MBTI is an operationalization of the eight types made explicit by Jung, with the addition of a fourth axis implicit in the theory. This fourth axis, measuring a "judging" or "perceiving" attitude was not used in this study. The eight types are derived from two attitudes extraversion and introversion; and four functions - thinking, feeling, intuition and sensation. One of the attitudes is considered dominant, one may be extraverted or introverted according to the MBTI. (Jung's approach, which I follow, is that one can also be neither). As far as the four functions are concerned, there are two pairs of functions. One is an "input" dimension and the other is a "doing-with" dimension. Each person has both these dimensions. In terms of the MBTI, the "input" dimension is either sensing or intuition; it cannot be both. (Again, I follow Jung in assuming it can, however, be neither). Similarly, the doing-with dimension is either thinking or feeling. Thus, ignoring the "neither" categories for a moment, each individual can be typed in accordance with their preferred attitude (extraversion or introversion) their preferred input-dimension (sensing or intuition) and their preferred (doing-with) dimension (thinking or feeling). Thus one has eight types. These preferred attitudes and functions colour the personality, and distinguish one type from another. How one develops one attitude or one function over another is a complex process; what is necessary for the present is to note that what is referred to in the current study as a "feeling" type as opposed to a "thinking" type is someone who has developed their feeling function to a greater degree of differentiation and refinement than their thinking function. (I am not concerned with whether or not that feeling function is the dominant or auxiliary function).
To examine the "neither" categories," this is contrary to the MBTI approach which types everyone. Jungian theory, contrary to the MBTI, does not attempt to type everyone (nor, indeed, does it assume that two "functions" will be conscious. One or three may also be). It is only when the use of a function or attitude is habitual that one is justified in "typing" someone. If, or example, one does not have a habitual attitude, one is an "ambivert" or untyped. Jung seemed to indicate he thought around 30-40% of people were neither extravert nor introvert. The way in which I have operationalized this notion is to treat as untyped those individuals whose preference scores are particularly low (a lack of a clear preference should indicate one cannot assume there is a habitual use of that mode). Scores between 96 and 104 on the continuous scales for the three dimensions, were ignored, i.e., treated as untyped.

The two functions which form the basis for the present study are "thinking" and "feeling"; the two judging or "doing with" functions. These are described by McCaulley as follows: (1982, p. 300)

"Thinking is the function that links ideas together by means of concepts, making logical connections. Feeling is the function that arranges the contents of consciousness according to their value. Persons who are oriented to life primarily through thinking typically develop strong powers of analysis, objectivity in weighting events with regard to logical outcomes, a time perspective concerned with connections from past through present to future, and a tough-minded skepticism. Persons who are oriented to life primarily through feeling typically develop sensitivity to questions of what matters most to people, a need for affiliation, a capacity for warmth, a desire for
harmony, and a time orientation emphasizing the preservation of the values of the past.

People with scores outside the "neutral" range (of 96 to 104 on the continuous score) are either thinking or feeling; and they may have a more or less strong preference for one over the other depending on the numerical value of that score. One can also measure the degree to which any type is more or less "thinking" or more or less feeling from the raw scores (from which the preference score for one relative to the other is computed). Thus even someone whose relative preference is for feeling over thinking, will still have a raw score for thinking (by definition this must be lower than the raw score for feeling). Thus the relative development of each function, irrespective of net preference, can also be gauged. This reflects the fact that the use of "type" categories does not, as is commonly assumed, place one into a homogeneous box from which one cannot at any time move. The functions interact in an extremely complex way and depending on the degree of refinement one wants to introduce into the analysis, one has access to a vast resource of permutations and combinations. For example, one's preference for one type does not mean that one never uses the non-preferred attitude or function. One uses all the functions and all the attitudes at one time or another, but because one's use of the "preferred" one is more developed, that preferred attitude and/or function is used in a more reliable way and more often. Thus an intuitive will use her or his intuitive function much more easily than the sensing function (and, hence, will continue to rely on it). What this means for the present study is that the "thinking" function for a thinking type will be used in a far more refined and sophisticated way than the thinking function of a feeling type and although the underlying psychic process is the same, it will be manifested at the behavioural level in a different way.
The MBTI has been shown to be a reliable measure. There is general agreement in the literature on psychological testing that it is reliable and well-designed (Lake et al. 1973). Carlyn (1977) in an analysis of the MBTI literature came to the conclusion that "the MBTI is an adequately reliable self-report inventory. The Extraversion-Introversion, Sensing-Intuitive, and Thinking-Feeling scales appear to be relatively independent of each other, measuring dimensions of personality which seem to be quite similar to those postulated by Jung". In terms of continuous scores, the indicator seems to have about the same reliability as better known inventories such as the CPI (Gough 1957), or the 16PF (Cattel, Sauders and Stice, 1957).

The MBTI also performs adequately on validity tests. It has strong predictive validity (Keen 1981, p. 6). For example, a number of studies (McCaulley, 1977) have indicated that career choices and choices to remain within a career are significantly in the directions predicted by theory. No criticisms of the MBTI's convergent or discriminant validity have been made (Keen 1981, p. 6). However, Stricker and Ross (1964) have questioned aspects of its construct validity. A later study (Richek, 1968) provided support for its construct validity, however, and Carlson (1980) has recently reported on a series of studies which also supported its construct validity. McCaulley (1982, p. 331) in a major review of validity studies stated there is "considerable evidence for the construct validity of MBTI". The weakest dimension of the Indicator in the above studies, the Judging-Perceiving axis, was not used in the present study.
Appendix C

Construction of the Depletion Index.

The Depletion Index was constructed using factor analysis as an exploratory tool to pinpoint items which conceptually cohered around the items of depletion or exhaustion.

A factor analysis using a wide range of items concerning reactions experienced on the MBA was performed. Oblique rotation, using the scree test as the cut-off criterion, was used. (Orthogonal rotation did not alter the selection of items for the Index. However, oblique rotation was considered more appropriate for there were no reasons to artificially limit the resultant factors to being independent of, or orthogonal to, each other.)

The analysis was performed in two stages.

(i) The first step involved modification and re-scaling of items in the questionnaire. Most items used in the factor analysis were from the same section, in which respondents had been asked to rate their answers on a scale from 1 to 5 (Never to Always). Items which were subsequently used in the Depletion Index from this section were interspersed amongst these 76 other items. The remaining items included in the factor analysis were in a separate, preceding section. These items all related to degree and type of exhaustion, and the relief of that exhaustion. Responses within this section were not independent of each other for only those who had answered positively an immediately preceding question of felt tiredness were asked to fill out the remaining section of questions. Those who did not fill out these remaining questions, by their negative response to the preceding question on tiredness, could all be assumed to have answered negatively on the remaining questions in the section, each of which presumed this tiredness. Statistically, then, the responses to this section were not independent of each other although
logically it could be expected that this should have made little difference to the responses. This lack of independence was dealt with in the following way.

There were three items in this section which, for conceptual reasons, I wished to include in the factor analysis. Two of these related to exhaustion and the third to the relief of the "tiredness" by rest or vacation. The first two items, one of which merely asked about whether the respondent had been too tired to perform a number of activities, were collapsed together and re-scaled from 1 to 5. Scores on these were compared with a separate question in the main section of the questionnaire referred to earlier, which asked the respondent to state on the 5-point scale the degree of exhaustion experienced. There was a significant positive association (.85) between responses to the latter question and the single score for the questions collapsed together as discussed above. Those two separate measures of exhaustion were, in turn, collapsed together and rescaled back to a 1-5 scale. It was expected that this procedure would reduce or eliminate the lack of independence mentioned earlier. This new variable was then included as the item relating to exhaustion in the factor analysis.

The third item from the section of questions relating solely to tiredness, asked the respondent about the relief of tiredness through rest or vacation. This was retained as a separate item in the factor analysis because of the additional information it contained, and because that information related to the notion of nonrenewal of energy. As indicated in the following table showing item-to-index correlations, it does not appear that this third item, called Rest-Vacation was an overweighted component for the correlations shown are very similar. Note that this holds for the Exhaustion item as well. Intercorrelations of these two items are not very different from those with the other two items eventually included in the Index. (Correlations
between Exhaustion and the remaining items, for example, were .58 with Waking, .69 with Rest-Vacation, and .62 with Fluctuation). Thus the original lack of independence in some of the items originally fed into the factor analysis and also chosen for the Depletion Index, has either been collapsed out or, at least, does not appear to have seriously affected the resultant Index.

The second step in the procedure to construct an Index, the results of which are implicit in the above, was to perform a factor analysis on a number of items including any that might have any bearing on the index of energy depletion as discussed in the literature. A clear Depletion of energy factor emerged with five clean high-loading items. Each of these items had a loading above .6 on that factor and no loading on any other factor above .2. The five items were:

(a) degree of exhaustion experienced (Exhaustion)
(b) degree to which rest or vacation relieved any tiredness (Rest-Vacation)
(c) severe energy fluctuations (Fluctuation)
(d) degree of exhaustion upon waking (Waking)
(e) degree of neck and shoulder tension.

Only the first four of the above were chosen for the Depletion Index. Neck and shoulder tension was highly and cleanly loaded (in spite of a separate physical illness factor), but because there were no strong conceptual reasons for including it as a measure of depletion, it was not used. This was, of necessity, an arbitrary decision and given that the Depletion Index served merely as measuring device rather than, say, a defining device, it could, in fact, have been used.

The remaining four items relate to the Depletion of energy and include, as two of those items, the concept of nonrenewal of energy, which I take to be
a critical determining indicator of the fatigue specific to burnout. The item on severe fluctuations of energy needs some comment. It can be explained only with the assistance of the interview data. I interpret its close association with exhaustion-depletion to be conceptually sound, not merely an empirical artifact of the technique of factor analysis. It relates to a process described by several of my interviewees (whom I would regard as burnt out and who scored highly on the remaining items in the Depletion Index) in terms of a sudden realisation or awareness of a complete absence of energy, and thus may be considered partly a perceptual phenomenon; or it was explained in terms of a sudden drop in energy to the point of collapse or immobility. The energy fluctuations, therefore, are more in the nature of sudden troughs, rather than an experience of peaks and then troughs.

**Item-to-Index Correlations**

<table>
<thead>
<tr>
<th>Item</th>
<th>Exhaustion</th>
<th>Rest-Vacation</th>
<th>Fluctuation</th>
<th>Waking</th>
</tr>
</thead>
<tbody>
<tr>
<td>Index</td>
<td>.84</td>
<td>.80</td>
<td>.77</td>
<td>.74</td>
</tr>
</tbody>
</table>

Each of these four items was loaded equally into the Depletion Index. A reliability test was performed on the data (using the revised SPSS package). The Cronbachs alpha was .82 for the overall index. With individual items excluded the Cronbach alpha was as follows:

<table>
<thead>
<tr>
<th>Item</th>
<th>Alpha if Item Deleted</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exhaustion</td>
<td>.70</td>
</tr>
<tr>
<td>Waking</td>
<td>.81</td>
</tr>
<tr>
<td>Rest/Vacation</td>
<td>.79</td>
</tr>
<tr>
<td>Fluctuation</td>
<td>.80</td>
</tr>
</tbody>
</table>
The Depletion Index factor loadings are set out below.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Loading</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exhaustion</td>
<td>.85</td>
</tr>
<tr>
<td>Feel exhausted upon waking</td>
<td>.53</td>
</tr>
<tr>
<td>Rest or Vacation do not relieve tiredness</td>
<td>.69</td>
</tr>
<tr>
<td>Severe energy fluctuations</td>
<td>.58</td>
</tr>
</tbody>
</table>

Note that the Depression Factor consisted of the following "clean", high-loading items.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Loading</th>
</tr>
</thead>
<tbody>
<tr>
<td>Depression</td>
<td>.69</td>
</tr>
<tr>
<td>Feeling Trapped</td>
<td>.56</td>
</tr>
<tr>
<td>Feeling Helpless</td>
<td>.55</td>
</tr>
<tr>
<td>Feeling Empty</td>
<td>.71</td>
</tr>
</tbody>
</table>

None of the above Depression-related items loaded above .30 on the Depletion factor; all were between .20 and .27.
Appendix D

Variables Used in Depersonalization Factors

(a) **Factor: Distancing**

<table>
<thead>
<tr>
<th>Loading</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>.62</td>
<td>(1) Distancing Self from Others</td>
</tr>
<tr>
<td>.56</td>
<td>(2) It is Best to Understand That Others Are All The Same Rather Than That They Are Different</td>
</tr>
</tbody>
</table>

(b) **Factor: Hostility**

<table>
<thead>
<tr>
<th>Loading</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>.68</td>
<td>(1) Finding Fault With Others</td>
</tr>
<tr>
<td>.69</td>
<td>(2) Striking Back at Others</td>
</tr>
</tbody>
</table>

(c) **Factor: Unconcern**

<table>
<thead>
<tr>
<th>Loading</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>.61</td>
<td>(1) Not Concerned With Others' Problems</td>
</tr>
<tr>
<td>.59</td>
<td>(2) Not Aware of Minor Changes in Others Appearance</td>
</tr>
</tbody>
</table>

(d) **Factor: Rejection**

<table>
<thead>
<tr>
<th>Loading</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>.74</td>
<td>(1) Not Caring if Others Like You</td>
</tr>
<tr>
<td>.53</td>
<td>(2) Not Wanting to Speak to People</td>
</tr>
</tbody>
</table>

(Note that in spite of the difference in loading in the last factor, weighting in terms of factor score coefficients rather than giving equal weighting to each item made no difference to any results reported)

Intercorrelations between the factors indicated that they were not reflecting the existence of one concept for they were not highly interrelated.

<table>
<thead>
<tr>
<th></th>
<th>Hostility</th>
<th>Distancing</th>
<th>Unconcern</th>
<th>Rejection</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Hostility</strong></td>
<td>.36</td>
<td></td>
<td>-.09</td>
<td>-.24</td>
</tr>
<tr>
<td><strong>Distancing</strong></td>
<td></td>
<td>-.13</td>
<td></td>
<td>-.20</td>
</tr>
<tr>
<td><strong>Unconcern</strong></td>
<td></td>
<td></td>
<td></td>
<td>.14</td>
</tr>
</tbody>
</table>