

DOCUMENT RESUME

ED 203 805

HE 014 074

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 TITLE Intrinsic Satisfaction from Academic Versus Other Professional Work: A Comparative Analysis. ASHE Annual Meeting 1981 Paper.
 PUB DATE Mar 81
 NOTE 52p.: Paper presented at the Annual Meeting of the Association for the Study of Higher Education (Washington, DC, March 3-4, 1981).

EDRS PRICE MF01/PC03 Plus Postage.
 DESCRIPTORS *College Faculty; Higher Education; *Job Satisfaction; *Need Gratification; *Professional Personnel; Self Actualization; Teacher Alienation; *Teacher Attitudes; Teacher Role; *Teaching (Occupation); Vocational Adjustment; Work Attitudes; Work Environment
 IDENTIFIERS *ASHE Annual Meeting

ABSTRACT

Recent theories of professional work satisfaction are reviewed and applied to the college or university professor. Additionally, the professional satisfactions available to the academic person are compared with those of professionals in other occupations. The following theories of job satisfaction are examined: job facets theory, expectancy theory, equity theory, need and need deficiency theory, and two-factor theory. Proponents of job facets theory generally reject the notion that there exists some overall feeling of job satisfaction but posit that workers tend to be satisfied or dissatisfied with particular aspects of their jobs. The use of facet theory in studies of college faculty employs questionnaires with long lists of job characteristics. Expectancy theory is probably particularly useful in separating the contingencies that affect effort-performance and performance reward. While equity theory can be of considerable value in understanding some of the sources of faculty dissatisfaction with teaching, it does not reveal, for example, the qualitative natures of satisfactions received at varying levels of input. Whereas expectancy theory predicts that workers will be able cognitively to appraise their situations and adjustments, need theory assumes that most workers will be driven by basic human forces that may not be fully understood through introspective analysis. Therefore, under this perspective, primary responsibility for the improvement of satisfaction would lie in formal authorities external to the individual. When the literature on need, two-factor, or need deficiency theory in the field of higher education is examined, surprisingly little is found. A bibliography is appended. (SW)

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Intrinsic Satisfaction from Academic Versus
Other Professional Work: A Comparative Analysis

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Paper presented at the annual meeting of the Association for the Study
of Higher Education, Washington, D.C., March, 1981.

HE 014 074

Association for the Study of Higher Education

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This paper was presented at the Annual Meeting of the Association for the Study of Higher Education held at the Washington Hilton in Washington, D.C. March 3-4, 1981. This paper was reviewed by ASHE and was judged to be of high quality and of interest to others concerned with the research of higher education. It has therefore been selected to be included in the ERIC collection of ASHE conference papers.

Annual Meeting — March 3-4, 1981 — Washington Hilton
Washington, D.C.

Most "professionals" who work in American organizations are said to desire and, under proper conditions, to find "intrinsic" satisfactions from their work. It is believed that for the person who has chosen professional, as contrasted with other kinds of work, performance of the tasks themselves provides opportunities for the expression of creativity and the exercise of competence, while the climate of the organization supports the freedom and autonomy needed for professional discretion in work-related decisions. These feelings of creativity, competence and self-determination are allegedly associated with intrinsic satisfactions. The case is commonly made that activities and conditions such as these obtain for faculty members in colleges and universities. Their responsibilities are reported to include tasks which are inherently rewarding, and the collegial structure and culture of institutions of higher learning offer them an atmosphere free of the usual constraints of bureaucratic scrutiny and accountability.

While such notions do have a commonsensical ring of truth to them, and they seem to have been accepted without question by virtually all who inquire into and write about the academic profession, there may be some good reasons for doubting them. In the first place, their validity has not been seriously tested through empirical means. We know little about "intrinsic" satisfactions from academic work, save what some observers make bold to guess about them on the basis of their own biased experiences. Second, in the social science literature of late, there have been several radical reconceptualizations of the nature of satisfactions in work. Applied to the higher education setting, these newer conceptual ideas or paradigms argue for greater caution in inferring that academics can and do derive intrinsic satisfactions from their work -- particularly from their teaching. From these considerations stem the three purposes of this paper: (1) to

review the newer theories of professional work satisfaction; 2) to apply them to the college or university professor; and (3) to compare the professional satisfactions available to the academic person with those of professionals in other occupations. The overall aim of the paper is to set forth some general propositions which can be tested at a later time.

Conceptual Models of Satisfaction

There is no dearth of literature on the subject of job satisfaction (Locke, 1976), but the topic still remains clouded by conceptual ambiguities. While it will not be the purpose of this paper to unravel these complexities, we will review and contrast the major competing theories extant and will comment on their applicability to the academic profession. In addition, since our ultimate concern is not only with the enhancement of faculty satisfactions per se, but also with the improvement of academic performance, we will also be concerned with the relationship between satisfaction and productivity. There continues to be a heavy controversy over the casual connections between these two variables (Lawler, 1973). As Katzell and Yankelovitch (1975) note, the objectives of satisfaction and productivity:

are so loosely coupled, there are so many intervening links between them, and the relationship is so indirect, that efforts which aim primarily at improving worker satisfaction on the assumption that productivity will thereby automatically increase are more likely than not to leave productivity unchanged, or at best to improve it marginally, and may even cause it to decline. (p. 12)

The consensus in the literature, however, as we will show, inclines toward the notion that productivity (engaging in the task and achieving goals) does lead to satisfactions of a more intrinsic nature (particularly for professionals), while other work environment factors may be more influential in affecting these satisfactions sometimes labeled as extrinsic. That

satisfaction may, in turn, influence productivity is an idea fairly commonly concluded, but there remains some ambiguity as to how that influence is exerted. In particular, several alternative conceptualizations of "motivation" complicate the issue (again, as we will show later).

Job satisfaction has been variously defined (Wanons & Lawler, 1972), but most agree that it has some "hedonic" quality (Landy, 1978). As Locke (1976) defines it, job satisfaction is "a pleasurable or positive emotional state resulting from the appraisal of one's job or job experiences." Satisfaction, according to this definition, is feeling or affect arising out of some cognitive evaluation or conscious assessment of the different aspects of one's job. Other definitions also conceive of satisfaction as affect but do not demand that the individual be as overtly aware of his/her feelings (Hackman & Oldham, 1974a; Csikszentmihalyi, 1978). That is, satisfaction may be present without any conscious or cognitive appraisal. This question of the effects of cognition (and its structure and antecedents) on the sense of satisfaction is woven in and out of the literature of satisfaction theory.

The history of the study of job satisfactions over the last sixty years is an extensive one. From the early studies of Hoppock (1935), who used a unidimensional and global conception of satisfaction, to the more recent theories, which break down the concept into many dimensions, the approaches have undergone many transformations (Burdow, 1974). There seem to be the following alternative conceptualizations identified in the literature*:

1. Role theory
 2. Job facets theory
 3. Expectancy theory
 4. Equity theory
 5. Need and need deficiency theory
 6. Two-factor theory
-

*For alternative typologies, see Frankel (1973) and Miskel (1980).

7. Personality theory
8. Flow theory

While there is no unambiguous taxonomy into which the theories can be placed, there does appear to be something of a continuum. At one end are theories placing more emphasis on cognition and on factors in the organizational environment as determinants of job satisfaction. At the other are the non-cognitive, idiographic theories which stress factors internal to the individual as better predictors of satisfaction. For reasons of space, we deal in this paper with the theories numbered 2 through 6. We will look at each in some detail and consider their special relevance to our understanding of the satisfactions of college faculty members. As with Alderfer (1977), we believe the theories should be viewed as complementary explanations, not as contradictory or competitive.

Job Facets Theory

Proponents of job facets theory generally reject the notion that there exists some omnibus feeling of job satisfaction. Workers tend to be satisfied or dissatisfied with particular aspects of their jobs. To ask a worker how satisfied he or she may be with the job as a whole is to combine unique and essentially dissimilar aspects of the job. To use the familiar analogy, asking a person to what degree "fruit" in general is liked leads to misrepresentations caused by averaging. Apples may be intensely disliked, while oranges may be loved, and the "average" liking does not have any meaning with external validity.

Out of this concern with developing a more diagnostic conception of job satisfaction came a large number of studies aimed at identifying the most common facets which workers name as contributing to their good or bad feelings on the job (see, for example, Lodahl, 1964; Henrichs, 1968; Wanous,

1974; Katz & Van Maanen, 1977). Among these were numerous factor analytic studies. Lodahl (1964) concluded that there were at least five related independent dimensions of work which were necessary to account for variations in affect on the job: supervision, organization, salary, working conditions, and opportunity for advancement. Lodahl's work led to the recognition that at least some of the sources of satisfaction on the job were endogenous -- i.e., results of idiosyncratic personality and background factors -- while others were determined by the conditions of the job -- technology, use of authority, peer relations, etc. (cf. Smith, Kendall, & Hulin, 1970; Wanous & Lawler, 1972).

Facet theory has a fairly long history in studies of college faculty. Indeed, its rather straightforward methodology -- questionnaires with long lists of job characteristics -- lends itself to easy (if frequently unvalidated) research methods. A spate of such exercises appeared some two decades ago (Eckert, Stecklein & Sagen, 1959; Rose crance, 1962; Russell, 1962; Richardson & Blocker, 1963; Whitlock, 1965; Theophilus, 1967), and similar efforts have continued into recent years (Eckert & Williams, 1972; Nicholson & Miljus, 1972; Allen, 1973; Neumann, 1978; Astin, 1980). While a few of these studies report simply the mean scores for all of the satisfaction items, most attempt to reduce the number of items either through content analysis or/and factor analysis. Typical of the dimensions which result from these analyses are faculty satisfactions with recognition and advancement, the work itself, administrative policies, supervision, interpersonal relations, working conditions, salaries, non-wage benefits, academic standards, the institutional environment, student characteristics, and staff support. As reported in these studies, the broader factors bringing most satisfaction tended to be feelings of academic freedom, the nature of the work itself (responsibility, challenge, variety), relations with students

(especially a sense of their actually learning), relations with competent colleagues, job stability (tenure), and professional and social recognition.

Facet studies of faculty satisfaction have the advantage of identifying, even with limited face validity, characteristics of faculty and their work environment which may contribute to overall institutional morale and perhaps to improvements in productivity and the quality of work. Some studies (e.g., Cope, 1972; Neumann, 1978) have gone on to attempt to determine the important organizational variables (goals, power, climate, rewards) which most highly correlate with faculty satisfactions. As we will elaborate later, however, the approach suffers most from the typical limitations of questionnaire/interview techniques in social science. Commonly, respondents will be biased by the social desirability of a positive response to the item (e.g., "I like working with students"). In addition, the questionnaire design is usually biased by the inclusion of items chosen from the bromides which most frequently come up in lay discussions of or even research on faculty satisfaction. These true but unsophisticated items do not convey sufficient meaning to permit informed institutional policy analysis and formation.

Expectancy Theory

Expectancy theory has its origins in the psychological theories of motivation articulated in the work of Lewin (1938), Rotter (1955), Atkinson (1958) and Tolman (1959). It is essentially a model for explaining the causes of behavior, but has been extended to comprehend the concept of satisfaction -- both as a resultant of behavior and as a cause of it. Expectancy theorists see behavior as following from affective orientations toward the variety of possible outcomes of an act or a set of acts (Vroom,

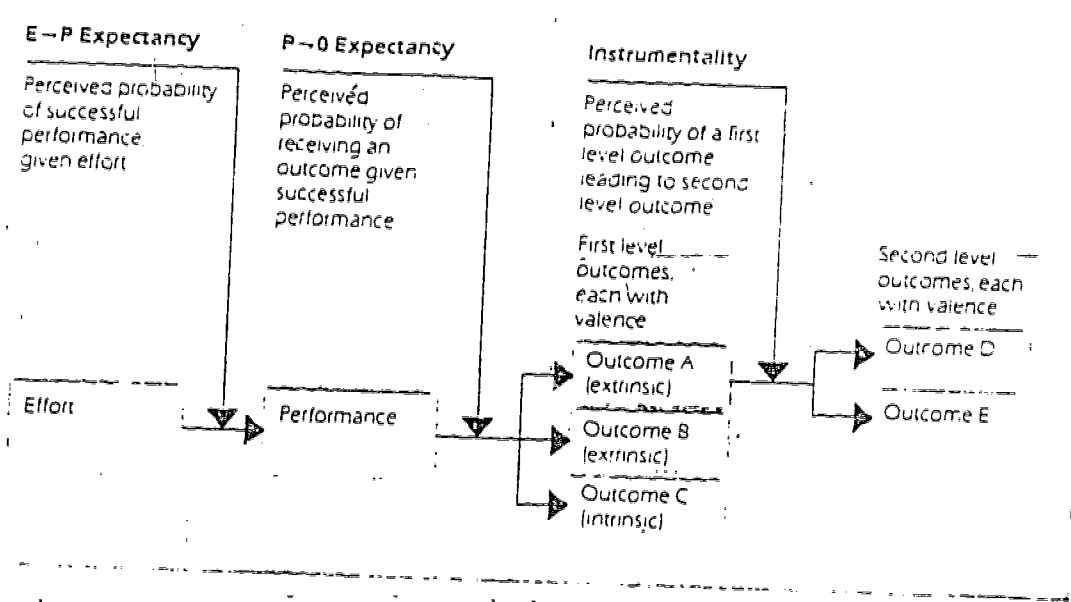
1964). In addition, when a person has generally positive feelings about a class of outcomes (say, he/she is said to be "motivated" to achieve those outcomes.

For most expectancy theorists, outcomes are designed by workers to the degree that they are seen as leading to satisfaction or dissatisfaction. Thus, activities for people, acquire positive or negative affect (called "valence" in some of the jargon) when the activities are perceived as instrumental or not instrumental to satisfaction. Whether a person actually engages in an activity, however, is dependent not only on the degree to which the outcome is positively valent, but also on the perception of the probability of the outcomes being realized. When there is little likelihood that the outcome can be achieved, however attractive the outcome, a person will be disinclined to expend effort to achieve it. Many expectancy theorists propose that the strength or force of a person's inclination to engage in an act is a product (the multiplication of the factors) of the perceived valence of the outcome and the probability of achievement ($F = f[\sum(EV)]$ -- where E is the expectation or probability and V the valence). Importantly, the force to act is never determined by a single outcome, since there are usually many outcomes associated with any behavior. Thus, for example, research may be seen as leading to high status, but it may also be perceived as intellectually taxing. The force to behave, then, is the sum of all of the EV relationships.

Lawler (1973) and Nadler & Lawler (1977) have moved one step further in the conceptualization of expectancy theory and have clarified some of the ambiguous meanings of "outcome" in the earlier writings (see Figure 1 below). The newer theory separates the expectancies into two. The first is the actor's expectancy that his/her efforts will lead to successful

Figure 1

Major Expectancy Theory Terms



performance ($E \rightarrow P$). In the context of this paper, analysis of this expectancy might reveal, for example, whether a faculty member believes that the act of engaging in teaching will lead to "successful" teaching, or whether doing research in the library will result in successful research. The second expectancy refers to the probability of receiving an outcome, given successful performance -- $P \rightarrow O$ -- (again, in the terms of this paper, whether good teaching will lead to recognition for that teaching). Still a third level of expectancies is concerned with the instrumentality of the first set of outcomes -- i.e., with the probability that outcomes of the first kind will lead to other outcomes, each set with its own separate valences ($O_1 \rightarrow O_2$). An example here would be a faculty member's expectation that recognition for good teaching will lead to higher salary. Nadler and Lawler stress that the first level of outcomes may include both intrinsic and extrinsic rewards. Thus, in their view, a faculty member who teaches well may provide him-or-herself a variety of "intrinsic" outcomes (feelings of accomplishment, creativity, etc.). This same act of good teaching can lead, in addition, to outcomes impacted by characteristics in the work environment. For example, good teaching can lead to good student evaluations. Such extrinsic outcomes can, in turn, lead to second-level outcomes. Hence, good student evaluations might lead to greater salary and to promotion.

One of the most important contributions of the expectancy models is the recognition of the contingencies between effort, performance, first and second level outcomes (Lawler & Suttle, 1973). That is, at each point of expectancy ($E \rightarrow P$; $P \rightarrow O$; $O_1 \rightarrow O_2$), there may be extrinsic and intrinsic factors which determine the individual's assignment or probabilities to the relationship between the variables. Prior learning, personality, self-

esteem, role expectations, and the demands of the current situation, for example, all enter into a person's determination of the degree to which effort will result in successful performance ($E \rightarrow P$).

Similarly, the expectation that performance will lead to outcomes ($P \rightarrow O$) is determined by past experience, by the attractiveness of the outcomes, by communications from others and by personality (particularly, locus of control). And, finally, the same determinants mediate the relationships between first-level and second-level outcomes ($O_1 \rightarrow O_2$).

Although not explicitly stated above, it should be clear that satisfactions, the subject of this paper, are intimately related to all three of the variables in the equation. Seen as a resultant of effort, performance, and outcome(s), satisfaction from work will be affected by all of the variables mediating the expectancy relationships. Thus, if there is a perceived low probability that effort will lead to successful performance, not only will the behavior probably be unlikely, but the outcomes associated with the performance, however strong their positive valence, will not result. Since satisfaction can be either a primary or secondary outcome, it is clear that all of the contingencies having an independent effect on expectancies will also ultimately have an impact on satisfactions.

Two significant points must be reiterated here. First, the Nadler and Lawler model of expectancy is an attempt to explain motivation, not satisfaction. There is no explicit suggestion that satisfaction may "cause" a difference in performance, nor is there any recognition that noncognitive factors may enter into the motivation equation. The Lawler bias is stated as follows:

In retrospect, it is hard to understand why the belief that high satisfaction causes high performance was so widely accepted. There is nothing in the literature on motivation that suggests

this casual relationship. In fact, such a relationship is opposite to the concepts developed by both drive theory and expectancy theory. If anything, these two theories would seem to predict that high satisfaction might reduce motivation because of a consequent reduction in the importance of various rewards that may have provided motivational force. Clearly, a more logical view is that performance is determined by people's efforts to obtain the goals and outcomes they desire, and satisfaction is determined by the outcomes people actually obtain. (Lawler, 1973, p. 85)

While it is not the purpose of this paper to review this controversy in depth (see, for example, Campbell & Pritchard, 1976), it is useful to point out that there are contrary views (some of which will be considered briefly later). At this point, however, we consider only satisfactions, particularly faculty satisfactions, taken as valued in and of themselves.

Unfortunately, expectancy theory has been relatively neglected in the literature on faculty satisfactions. We can only speculate about some of the contingencies. First, let us look at the relationship between effort and performance, particularly as it applies to teaching. As faculty generally, and for specific teaching enterprises, view the prospect of their efforts in terms of expected success in teaching, one can expect them to perceive a fairly wide range of probabilities. For a number of reasons, the explanation of the variance among faculty assignments of probabilities is likely to stem not from perceptions of the favorability of the environment, but from internal, idiosyncratic, personality dispositions. We might expect, for example, that for those faculty whose self-esteem and sense of competence in general are high, the assessed likelihood that effort in teaching will be successful is probably reasonably high. That is, there is a "generalization" effect which will carry over to the teaching role. The converse is also probably true. Low generalized self-confidence will result in lower expectations about the effort-performance relationship.

It has been argued, of course, that such generalization effects are commonly observed (though some social scientists would insist that personality is not invariant across situations). Why, then, is the personal rather than the environmental input more likely to predominate in the teaching situation than in other settings? Of critical importance to the answer is the faculty member's conception of what constitutes "success" in teaching. In the absence of consensus on what is good teaching, and with little or no opportunity to test empirically the effects of various teaching behaviors (except, perhaps, using short run surrogate measures of cognitive achievement in students), faculty are left with a not inconsiderable amount of ambiguity. The lack of clarity in their own teaching goals (both educational and pedagogical) and the lack of visibility of success in teaching contribute, in turn, to a persistently noisy feedback channel -- one which yields very little data on which to predict the effort-performance probabilities (Bess, 1981b). Faced with this uncertainty, faculty must fall back on their generalized senses of self and impute effort-performance expectations of the same order as occur in other situations. In sum, this discussion of the difficulty faculty have in making predictions points to a limitation of the expectancy model. Its cognitive bias ignores the problems of goal ambiguity often found in professional work. It also fails to predict the impact of ambiguity in general (perhaps as a separate causal force) on motivation (cf. Staw, 1980). The most we can say about the expectancy of performance, given effort, in teaching is that personality and background variables are critical. Hence, to improve effort in teaching, it is necessary to recruit to the profession persons with exceptionally strong self-concepts.

Let us now pursue the expectancies between performance and outcome

($P \rightarrow O$). Recall that this relationship deals with the probability that an outcome will follow from performance. With respect to teaching, can faculty make these assessments with some degree of confidence and accuracy? If they can, then both motivation and satisfaction will be enhanced. The answer to the question depends to a large extent on the type of institution in which the faculty member works. Certainly at teaching-oriented colleges, such as community colleges, the performance-outcome contingencies are more predictable. Teaching tends to be more carefully monitored, and the outcomes do not depend as much on tasks other than teaching, as might be the case at a university. Moreover, definitions of good teaching are more likely at community colleges to emphasize "cognitive" mastery, achievements which can be measured empirically and can be perceived by other faculty in different or advanced courses in the curriculum. In these instances, a faculty member can make fairly reliable estimates of the outcomes which will follow from his/her good teaching performance. Importantly, these outcomes can be either extrinsic or intrinsic. That is, rewards from external or internal sources can be seen forthcoming or not.

There is a much greater problem in liberal arts colleges and in universities. Not only are more tasks factored into the reward equations (e.g., research, professional service), but the reward weights attached to the successful performance of the various tasks are frequently either not known or observed in the breach. Faculty in universities commonly are uncertain of the bases on which salary and promotion decisions are made, and even when they do know the official criteria, they are well aware that measurement of achievement according to those criteria is largely qualitative and often personalistically biased (Lewis, 1975; Baldrige, Curtis, Ecker & Riley, 1978, pp. 105 ff). Finally, in universities (not necessarily in

liberal arts colleges) the consensus seems to be that rewards for good teaching follow an "S" shaped curve -- egregiously poor teaching will result in lower rewards, and exceptionally good teaching will bring higher rewards, but for most faculty in the wide middle range, teaching performance has little effect on rewards.

In sum, faculty expectancies with respect to performance-outcome probabilities are similar to those for effort-performance probabilities -- i.e., beset with uncertainties and ambiguities. However, in the latter case, one of the outcomes, according to the theory, can be "intrinsic satisfactions." While the theory is unclear as to how these kinds of outcomes can be apprehended cognitively, it is fair to conclude that motivation to teach will be enhanced when a patterned receipt of intrinsic satisfactions is connected experientially with certain kinds of teaching. More simply, the habit of being satisfied with teaching reinforces the repetition of existing patterns of teaching (though not necessarily "good" teaching). As Deci and Porac (1978) note:

A motive is a transitory awareness of the possibility of achieving some internal satisfaction. It is a cognitive representation of a future organismic condition the individual expects to be satisfying.

Expectancy theory thus has some utility in understanding the motivation of faculty members to seek satisfactions through teaching. It is particularly useful in separating the contingencies which affect effort-performance and performance-reward. We now move to the third of the theories of satisfaction -- equity theory.

Equity Theory

Equity theory also is based on the assumption that perception and cognition play an important part in motivation (Adams, 1965). As Campbell

and Pritchard (1976) note:

Perceived equity or inequity results when a person compares his or her outcome/input ratio, either consciously or unconsciously, to what is perceived to be the ratio of another person or persons. This comparison object need not necessarily be any one individual; it may be an abstraction based on a broad class of others seen to be relevant for comparison purposes.

Under conditions of perceived inequity, persons tend to become dissatisfied and to seek to relieve the tension created by the dissatisfaction (March & Simon, 1958, p. 48). This activity can take various forms. Adams suggests

six:

1. An alteration of inputs -- i.e., by reducing effort
2. A change in outcomes -- i.e., finding a way to improve the rewards
3. Cognitively distorting either inputs or outputs or both -- i.e., pretending that effort was less than it actually was or/and overestimating the quality and quantity of the output
4. Leaving the field -- i.e., removing oneself from the comparative condition
5. Causing the other person or persons to change (or pretending that they have) -- i.e., forcing the others to leave the field or to increase their inputs or accept lower outcomes (or distorting the other's inputs and outcomes)
6. Changing the object of comparison -- i.e., identifying a new person or persons as a referent and denying the old one(s)

Clearly, not all of these alternatives are equally amenable to action.

Indeed, there is some evidence that when workers in organizations are committed to the organization and to their tasks, they will tend "to rationalize past behavior by developing attitudes consonant with that behavior." (Staw, 1980; Pfeffer & Lawler, 1980).* Hence, options 3 and 5 above -- distorting own or other's input or outcome will be preferred, wherever possible.

We turn now to a discussion of how equity theory might be related to our understanding of faculty satisfactions. It is important first to establish the relevant others with whom faculty compare their teaching

*The emerging field of "insufficient justification" bears importantly on this discussion, but will not be considered in this paper, for reasons of space.

outcome/input ratios. Since teaching most commonly takes place in the context of the academic departmental norms, it is quite likely that the faculty see their departmental colleagues as their most significant others insofar as teaching is concerned. Unfortunately, the basis for judging both the outcome and input of teaching are, for most faculty, somewhat suspect. For a variety of reasons, faculty seem reluctant to share honestly and openly both the time spent in and difficulties associated with preparing for classes and the pleasures and displeasures derived from conducting them. It is quite common to hear faculty lament their alleged lack of preparation with such phrases as "I'm on my way to class, and I have no idea what I'll say. Guess I'll have to 'wing' it." Regardless of whether this is true (some may be very well prepared, some very poorly), the prevailing norm seems to constrain faculty to indicate that they have put relatively little effort into teaching.

On the outcome side, the picture is not as clear, partly because less is said by faculty about how classes went -- partly, of course, for the reasons noted above; namely, it is difficult to tell. While some faculty may reveal their exultation at having been highly successful in a particular class, most do not. Nor do they exchange their feelings about classes which they know went poorly, both because such self-denigration reflects badly on them and because norms constrain such utterances. It may be that the established norms against the practice have arisen to save faculty from being reminded of their own anxieties as a result of their teaching.

In the face of these behaviors -- highly visible statements about lack of input into teaching and lack of manifest satisfactions or dissatisfactions as a teaching outcome, the question may be asked as to which of the recourses suggested by equity theory are faculty likely to take? All

but the first of the six seem unlikely. For example, it would be difficult to imagine faculty trying to find a way of improving the rewards from teaching. They simply do not know how to apprehend the satisfactions from teaching (Bess, 1981a, 1981b), never having been trained in identifying cues in the classroom which might yield satisfactions. Though they might try to distort the outcomes and pretend that outcomes were greater than actually felt, such distortion would be difficult to maintain over a period of sustained negative reinforcement. On occasion, faculty will change the bases for judging the quality or quantity of the outcome by shifting from educational goals of a more ambitious nature to short-term pedagogical objectives (e.g., turning from evocative to didactic modes of teaching -- Axelrod, 1973). Thus, they will look to student achievements of a tangible nature like success in answering examinations, instead of dealing with the student as a developing person.

Faculty are unlikely to leave the field or to cause others to change either inputs or outcomes or to identify with new referent persons (the last three options in equity theory). These actions or reorientations would be extremely difficult for a variety of reasons. Hence, the only recourse to faculty is to reduce their efforts. This lowering of inputs into teaching will restore for them the O/I balance vis-a-vis other faculty, bringing their own sense of equity into line with what they see as the prevailing norm. In accordance with the theory, the renewed perception of equity will, in turn, result in less dissatisfaction.

In sum, equity theory can be of considerable value in understanding some of the sources of faculty dissatisfaction with (and, incidentally, reduced commitment to) teaching. Because the comparisons of self and other are clouded with ambiguities, faculty are quite likely to perceive them-

selves as being deprived of some outcome or/and as being required to put too much effort into a task for which the rewards forthcoming seem less than those thought to be accruing to others. Unfortunately, the theory of equity does not deal usefully with satisfactions; rather, its emphasis is on inequity and dissatisfactions. It does not reveal, for example, the qualitative natures of satisfactions (qua outcomes) received at varying levels of input. Hence, we know little of the effect on faculty satisfaction when, as a result of perceived inequity, they reduce their effort and restore the O/I balance. It might be surmised that the lower input effectively removes faculty dissatisfaction with teaching, but it does little to contribute to faculty satisfactions with that enterprise. As will be seen below, this division of satisfactions and dissatisfactions into two continua has been hypothesized and tested by many others in the context of "two-factor" theory.

Need and Need Deficiency Theory

The use of the concept of "need" as a basis for understanding human motivation and behavior has a long history in what has sometimes been called the "mechanistic" tradition. Current need theories have their origin in so-called "drive theory," as articulated in the writings of Hull, Spence, Dollard and Miller and others. In contemporary motivational writings, drive theory itself has split into a number of branches (Weiner, 1972), including behaviorist approaches, which we will not be considering in this paper. The important point here is that motivation under some theories is seen to result from instinctual energies directed toward the release of basic tensions associated with groups of "needs." Man is said to be directed to seek to reduce the tension produced by unresolved sets of needs. When

the tension is removed, "satisfaction" results.

The search for the smallest number of basic human needs which would explain the most variance in human behavior has occupied social scientists (and others, of course) for centuries. Need theories range from quite long lists (Murray) to very short ones (e.g., ego in Levinson, achievement in Atkinson and McClelland, or even Freud's loving and working). Perhaps one of the most salient of theories of motivation and satisfaction which appears in the literature on organizations is that of Abraham Maslow (1954). In brief, Maslow proposed that human needs form a hierarchy of levels. Beginning with the lowest, the physiological needs, the list proceeds upward through safety, belonging or social, and ego (both ego and self-esteem) needs and reaches its peak in the needs for self-actualization. Satisfaction of the lower needs, in Maslow's view, leads to the increased importance attached to the higher level needs, since the hierarchy is cast in order of "prepotency." A satisfied need is no longer a motivator, since the tension associated with the drive to meet the need has been dissipated (cf. Argyris, 1957, p. 31). Maslow sees human mental health and development as dependent on the continued satisfaction of "growth" needs -- the needs for ego, self-esteem and self-actualization; hence, the lower needs are conceived as "deficiency" needs.

Of some interest is the body of research which has been addressed to the testing of the hierarchy and the modification of Maslow's theory. Most prominent among the newer theories is that of Alderfer (1972). Alderfer questioned the Maslow notion that satisfied needs no longer motivate, a prediction which would be confirmed empirically in a finding of "a negative correlation between satisfaction and importance of the same need and a positive correlation between the satisfaction and the importance of the

need at the next higher level." (Lawler & Suttle, 1972). In other words, as a lower need is satisfied, its importance would be expected to diminish, while the importance of the next need up in the hierarchy would become larger. When little foundation in fact for this prediction was discovered, Alderfer developed and validated empirically (Alderfer & Schneider, 1969; Alderfer, 1972) his own model of motivation and satisfaction which argues for three levels of needs -- existence, relatedness and growth. Existence needs are comprised of all of the various physiological and material concerns of workers. Relatedness refers to the desire of the worker to develop deep relationships with significant others and to share thoughts and feelings. Finally, growth needs reflect each individual's desire to be creative and productive, both with respect to self and society.

Current arguments about needs seem to center on the stability of needs within any one individual across "situations" and over the life span, on the commonality of need strength across individuals, and on the nature of the factors in the environment which may satisfy one or another of the needs (Salancik & Pfeffer, 1977). For example, it would appear that lower order needs are more readily satisfied by more tangible environmental features, such as salary and pleasant surroundings. The environmental referents for upper level need satisfaction are perceived by the individual as more diffuse and, importantly, may be more "processual" -- i.e., more an inherent part of the act of performing the task. Satisfaction of upper level needs, therefore, would follow from worker involvement and commitment in the task, rather than from receipt of organizational rewards.

It may have been the concern with identifying the environmental conditions which could better predict even the upper level needs which led Hackman and Oldham (1974a) to develop their "job characteristics" model

of motivation, organizational effectiveness and human satisfaction. Hackman and Oldham bridge the need and expectancy approaches to postulating the existence of three critical "psychological states in workers, which are necessary for the achievement of high productivity and personal satisfaction. These states are" experienced meaningfulness of work, experienced responsibility for the outcomes of the work, and knowledge of the actual results of the work activities". The Hackman and Oldham model suggests, in addition, that there are important characteristics of the work environment (called "core job dimensions") which are causally connected to the three psychological states. These dimensions are "skill variety, task identity, task significance, autonomy, and feedback." These last five job dimensions, in other words, lead to the three psychological states, and, in turn, to varying degrees of motivation, productivity and satisfaction.*

Though not explicit in the model, the concept of "needs" can be inferred from the operational definitions of motivation and satisfactions used in the instrument designed to collect data to test the model. Five kinds of satisfactions are proposed: satisfaction with pay and security, social satisfaction, supervisory satisfaction, and growth satisfaction (Hackman & Oldham, 1974b). Needs are also apparently assumed in the three "psychological states" themselves. If we were to extract from both satisfactions and states a set of basic human needs, the list might include the following: Needs for

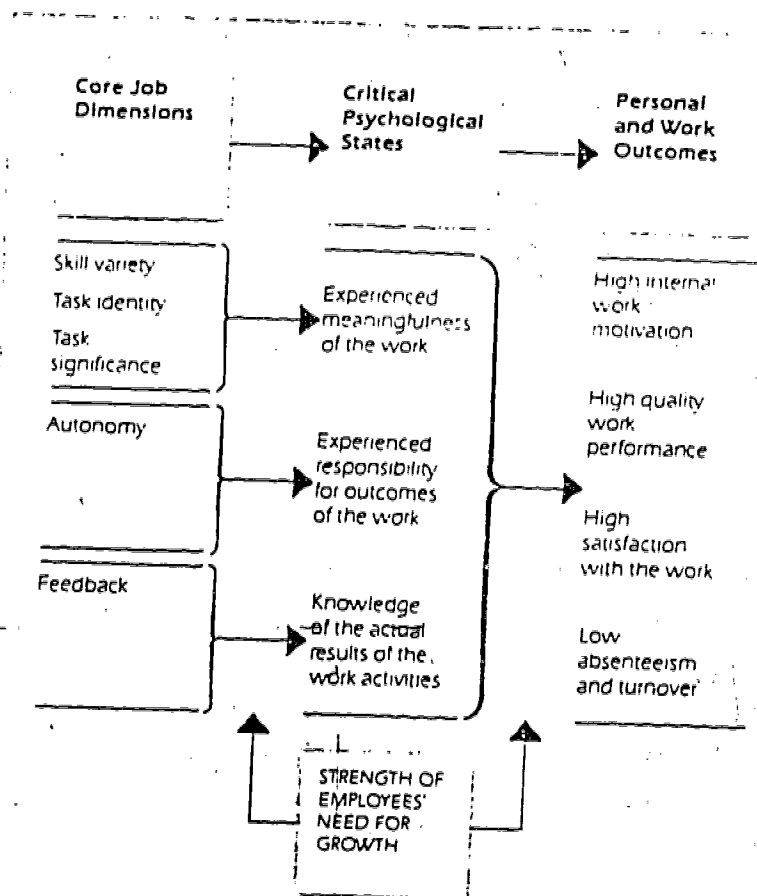
- Security
- Belonging
- Meaningfulness
- Responsibility
- Reinforcement
- Growth
- Internal motivation to work

While this list is not conceived in any order of prepotency, as in

* Insert Figure 2 about here.

FIGURE 2

*The Job Characteristics Model of Work
Motivation*



the Maslow model (indeed, the Hackman and Oldham model was seen initially to be multiplicative and later as possibly additive), the conception of needs as having some qualitative differences in terms of their importance to the human sense of well-being has led others to a considerable amount of empirical testing of need theories. One idea proposed was that the satisfaction of some needs "merely" maintains the individual in a non-dissatisfied state, while others contribute more importantly to the individual's overall sense of work and life satisfaction. This "two-factor" approach, was, of course, the seminal contribution of Herzberg and his colleagues (Herzberg, Mausner, & Snyderman, 1959; Herzberg, 1966).

Herzberg et al. divided work satisfactions into two dimensions. The first set of satisfactions was associated with the "context" in which the work is performed (e.g., pay, technical supervision, human relations, quality of supervision, general administration, working conditions physical, and job security). These are sometimes labeled "extrinsic factors." The second set of satisfactions is conceived as stemming from the individual's relation to the work itself (sometimes called "job content" or "intrinsic factors"). Among these are achievement, recognition, work itself, responsibility, advancement and growth. In later writings, Herzberg labeled the two sets of "hygienes" and "motivators." While there have been an enormous number of empirical studies of the two-factor theory and many criticisms of it (e.g., House & Wigdor, 1967; King, 1970), the particularly intriguing aspect of the theory for this paper is not the validity of the needs but the conception of the dual continua of satisfaction and dissatisfaction. The qualitative differences in perceived or felt satisfaction with different aspects of work, and the different strengths and meanings attached to these satisfactions may be important to our understanding of

faculty motivation and satisfaction, particularly if we view satisfaction as having some causal connection to motivation and performance. That this latter may be a more reasonable possibility for faculty, as contrasted with other professionals, will be discussed below.

One final approach to understanding "needs" as an important variable in satisfaction theory must be considered. The amount and depth of literature on life-cycle and career-span need salience has increased considerably in recent years, particularly as the popular press had given them some prominence (Levinson, 1978; Sheehy, 1976). Developmental needs and needs over the span of life are important to the understanding of faculty satisfactions, but space permits only mention some of the literature in higher education which bears on it (Light, 1973; Bess, 1973; Hodgkinson, 1974; Eckert, 1972; Blackburn & Havighurst, 1979).

Before turning to a discussion of the explanatory potential of these various need theories in understanding faculty satisfactions, it is necessary briefly to consider the modes of measurement used in the study of need satisfaction. The most common one is a "need deficiency" model (Porter, 1964). Respondents to questionnaires are asked to rate a list of needs in two or three ways:

"how much of the characteristic is there now in your position?"

"how much of the characteristic do you think should be in your position?"

"how important is this position to you?"

According to this technique, satisfactions vary along a scale which represents the difference between the respondent's view of what the situation should be and what it is -- the smaller the difference, the greater the satisfaction. In some studies, the amount of the characteristic reported as "should be" is weighted by the rated "importance" of the characteristic, though this procedure has been subject to some considerable criticism

(Ewen, 1967; Ryans, 1954; Evans, 1969; Locke, 1976). This indirect or "job referent" approach (Smith, Kendall & Hulin, 1969) has several advantages. It reduces the potential bias of response set, as when respondents answer a large number of questions about their levels of satisfaction with different items; and, it allows for differences among respondents in expectations.

The other major method for gathering data about need satisfaction is through the "critical incident" method (Flanagan, 1954). Though the method had its antecedents in a variety of ethnomethodological approaches to data gathering, in studies of job satisfaction, it was made most visible in the Herzberg work. Many researchers continue to use the method (e.g., Mitroff & Kilmann, 1975), despite the continuing controversy over its validity (House & Wigdor, 1967; Salancik & Pfeffer, 1977). A significant advantage of the critical incident method for the study of faculty lies in its capacity to elude from respondents qualitative dimensions of both satisfaction and dissatisfaction which may not have been previously identified.

One final observation on need theories in general is appropriate at this point. As contrasted with the more cognitive expectancy theory, need theory makes quite different assumptions about the "responsibility" for obtaining satisfactions in the work situation. As Salancik and Pfeffer (1977) note,

The need-satisfaction model ultimately denies persons the creative capacity to cope with their environment, in part, by constructing meaning that makes the context more satisfying, and, in part, by redefining the situation and attending to selected aspects of the situation.

Thus, need-satisfaction models imply that individuals are tightly linked to their environments.

Whereas expectancy theory predicts that workers will be able cognitively

to appraise their situations and themselves and to assess the degree to which the possibility exists for some mutual adaptation to the requirements of each, need theory proposes that the appraisal process is much less conscious. Indeed, it assumes that most workers will be "driven" by basic human forces which may not be fully understood through introspective analysis. Since workers under this latter scheme have less "freedom" to decide intelligently for themselves, the primary responsibility for the improvement of satisfaction lies in formal authorities external to the individual. This distinction is a critical one, as will be seen in the comparisons later in this paper between academic and other professional workers.

When the literature on need, two-factor, or need deficiency theory in the field of higher education is examined, surprisingly little is found. While a number of dissertations and unpublished reports do use need theory (e.g., Hoth, 1979; Swierenga, 1970; Avakian, 1971; Harshberger, 1975), very few seem explicitly to embody a particular theory of human needs in the research models (Finkelstein, 1978). Some of the possible exceptions are Bess (1973), the examination by Cares and Balckburn (1978) of Maslow's concept of self-actualization, the work of Bordow (1974) in Australia seeking the underlying structure of faculty "morale" and the important studies of French, Tupper and Mueller (1965). Of particular interest in this last is the characterization of the seven most important reasons why faculty members in higher education say they work. The seven span the structure of motivational causes from external to internal and include:

- Nature of the work
- Funktionslust (simple enjoyment of the activity and its busy-ness)
- Satisfactions of extrinsic needs and values
- Job pressure and overload
- Work as a moral value
- Success striving
- Social pressure.

More common in the literature are studies highlighting discrepancies between faculty time-on-task desiderata and the time actually spent. Among these are the researches of Wilson (1942), Bidwell (1955), Parsons and Platt (1969), Ladd and Lipset (1975), Trow and Fulton (1975), Wilson (1942), National Academy of Sciences (1971), Light, Mardsen and Corl (1973), Startup, Grunberg and Tapsfield (1975) and Rich and Jolicoer (1978). A second approach to need discrepancy analysis is a comparison between the time spent and the evaluation weights assigned by institutions to the various tasks -- i.e., the assessment of the proportions of the work week allocated by faculty versus the proportions of rewards distributed for the various activities (Baldrige et al., 1978, pp. 105ff; Dornbusch, 1979; Hind, Dornbusch & Scott, 1974). To some extent, a third approach is represented in the various instruments of the Educational Testing Service (Institutional Goals Inventory, Institutional Functioning Inventory) are also measures of need discrepancies. In all of the above, however, the usual concern of the researcher is not with the psychological dynamics of the need structure in individuals but with the more sociological dimensions of perceived gaps in the optimum environment of the faculty member, particularly as those perceptions are aggregated to represent some institutional reality.

The paucity in number of studies of need satisfaction among faculty in higher education is to be lamented. Need theory can be of great value in explicating the frustrations of faculty and in providing directions for organizational policy which will alleviate the frustrations. In the sections which follow we consider the utility of such theoretical approaches as need hierarchies, the job characteristics model, and two-factor theory.

Prior to the current decline in the market for higher education, faculty

in colleges and universities might be said to have enjoyed a rather consistent satisfaction of their lower order needs. While the tenure system created for the assistant professor rank an inordinately high anxiety level, for the tenured faculty the continued assurances of employment and the rewards of pay and benefits effectively removed the tension of the drives associated with needs for safety and security.

Belonging needs for the more local of the faculty were also well-attended by the companionship and collegiality of the department and campus. Though some would argue that scholarship at research-oriented institutions is an isolated occupation, the counter-argument is that faculty who choose the more cosmopolitan role both enjoy their rather more lonely, if not antisocial, roles and find their belonging needs met nationally in professional activity and in nonacademic pursuits. (Variations across disciplines must be recognized, of course.) For faculty at more teaching-oriented institutions, as the many studies of institutional climate show, a far greater sense of shared community exists (again matching, indeed, created by, faculty needs for belonging). Contrary to some more commonly accepted notions, it is not likely that for most faculty their needs for belonging can be satisfied through contacts with students. As Smelser (1973) notes, the age and status differences between faculty and students are likely to create an "incest taboo." This normative/cultural constraint would inhibit the formation of intimate relationships which might satisfy belonging needs as Maslow conceived them (though, as we note later, such relationships may satisfy other faculty needs).

With the 1980's come different aggregate drive strengths among college faculty. Recall that Maslow predicted that unsatisfied needs are more salient than satisfied ones and that needs are satisfied in the upward order of the hierarchy. Hence, with renewed threats to safety needs,

it might be expected that faculty would "regress" to lower order needs. The shift might be manifested in a number of ways, from increased participation in (time committed to) activities providing more security (e.g., institutional governance, unions) to the sacrifice of quality for quantity in the striving to secure adequate rewards. In the parlance of sociology, a new class of "alienated" workers may be anticipated. With it may come the commonly associated management tools for dealing with alienated blue collar workers and the ultimately malevolent and intransigent status and structural adjustments in college and university organization which are found in industry.

But an alternative hypothesis is possible. As Quinn (n.d.) notes, when workers are "locked in" -- i.e., faced with limited cross institutional mobility -- they may be forced to see their current work situations as more favorable than otherwise and to seek and find greater satisfactions from it. It is difficult to interpret the research data on this issue. When faculty are asked how satisfied they are with their jobs or careers, the overwhelming response is positive. Faculty claim to be satisfied and fulfilled. They would choose the same career if given the option; their work is rewarding; their colleagues and collegiate environment gratifying (Wilson, 1979). But how reliable are such findings? According to Quinn and Shepard (1974) over 93% of American workers in 1973 reported that they were very happy or pretty happy and that they were either completely or pretty satisfied with the ways they were spending their lives (p. 48; cf. New York Times, 1979). For professional and technical workers, the scores were even higher (p. 92). And for all aspects of job satisfaction, this class of workers almost invariably reported extremely high levels of satisfaction -- well above the national norms for all occupations. Similar find-

ings were indicated in many other similar studies (Gutek, 1978). Yet, there is must reason to distrust such conclusions. In the first place, as Gutek notes, it is "common knowledge" that people are dissatisfied. Academia, for example, is rife with complaints of role strain, role overload, role ambiguity (though these go by other names), low pay, poor students, inadequate research funds, and so forth (discussed in part, in Finkelstein, 1978, pp. 308 ff). Second, most people have needs to (and would rather) be optimistic and cheerful about present situations and prospects. Perpetual gloom is not a desirable state of mind. Hence, most faculty members will indicate that their working lives are in general satisfying. To indicate otherwise, especially in the face of the present inter-institutional immobility in the profession, is to admit that the choice of occupation and institution was a poor life decision, now virtually irrevocable (Varela, 1971, p. 85). Whether the reality of their personal circumstances is obscure to most faculty and in their enforced optimism and "satisfaction" they are in fact more motivated and productive, or in contrast, whether in their latent dissatisfaction they are not as strongly motivated and hence less productive is indeed an empirical question worthy of exploration.

We turn now to a discussion of the higher level or growth needs in the Maslow hierarchy as they might be understood in the context of academic work. Maslow separates the ego needs into two. One need is for the esteem of significant others; the other, the need for self-esteem. Taking the first of the two, the question must be asked of the strength of the needs of faculty in higher education for esteem from others. While Maslow counts this kind of esteem need as universal, it would appear reasonable to assume that variations exist among individuals (and, as we will discuss,

across occupations). For example, it seems likely that persons with strong internal locus of control will be oriented less toward achievement as a means of external adulation and more toward the work itself as a source of satisfaction.

It is possible -- there is little empirical evidence -- that college faculty are split on this orientation. Some may find esteem in the approbation of colleagues and students; others may take that esteem in course but seek satisfactions in self-esteem through the sense of a job well done. The need for esteem from others proposed by Maslow seems especially helpful as a potential tool when we appreciate that the most significant tasks in which faculty engage are performed in situations unobserved by colleagues. Hence, the opportunities for gratification from others for work well done are limited. The achievements in both classroom and study or laboratory must wait, often for years, before the recognition is forthcoming. Indeed, Harshberger (1975) suggests that recognition for higher level professionals tends to be more of a hygiene than a motivator. Both internal locus of control and the necessity for delayed gratification force productive faculty to view esteem as an ongoing and supportive condition of life and work satisfaction rather than as an end in itself. This is not, of course, to argue that academics are not "ambitious" -- do not strive to be the first or the best or the most notable. The point here is only that the high need for achievement may be more likely to be channeled into academic work than into the vagaries of short-term politics which apparently characterize American business and some other professions.

Self-esteem, according to Maslow (Lowry, 1979),

especially in men in our society, does rest on dominance status. Is it possible to have self-esteem divorced from dominance-submission? (Vol. I, p. 94)

Self-esteem must rest on real objectively existing skills, capacities, & achievements, but must also be stable & firm enough to withstand comparison with other stronger capacities & achievements. What this amount to is that ideally self-esteem ought not to rest on comparisons at all! (Vol. I, p. 95).

In the ideal, self-esteem is built on a sense of competence (White, 1963) -- on the internal experience of having exercised a skill. The skill will have been built up over time as the result of assiduous application of energies to tasks designed to make future performance of like tasks more successful in the eyes of the doer. Or, in White's words,

Competence is the cumulative result of the history of interactions with the environment. "Sense of competence" is suggested as a suitable term for the subjective side of this, signifying one's consciously or unconsciously felt competence -- one's confidence -- in dealing with the various aspects of the environment. (p. 186)

In many ways, the development of competence for professionals can be likened to the skills honed by craftsmen as they learn their techniques (Barry, 1979, p. 25).

There are many competencies required of faculty (Bess, 1981a), but the two of central concern are teaching and research. In a sense, only teaching can be considered a craft, since it tends to demand a repetition of skills. (Research utilizes skills, but the problem focus tends to shift in ways that are not present in most crafts.) While some would argue that each student or group of students in a class requires unique treatment, it is nonetheless true that the skills involved in that treatment are likely to be ones applied previously (if, perhaps, in different combinations). The larger question here is whether craft satisfactions and the accompanying self-esteem are forthcoming from teaching. The answer has to do with the capacity of the teacher/craftsman to appreciate both cognitively and noncognitively that the skills have been exercised and whether the per-

formance has been successful. The argument here, of course, is that most faculty are not able to recognize their own competence (a point to which we return later) and hence are deprived of the sense of self-esteem which Maslow suggests as part of his theoretical hierarchy. In this sense, Maslow's theory can be of use in understanding the satisfactions of faculty. It is also useful to consider the pathologies of denied self-esteem, as the above quotation from Maslow hints. The question must certainly be asked whether faculty seek in the classroom to find ways of buoying up their self-esteem through a dominance-submission relationship with students (cf. Mann et al., 1970).

It would be reasonable at this point to consider Maslow's highest need -- self-actualization -- but we reserve discussion of it to the section following which considers other more "existential" needs, as in the Hackman and Oldham typology.

To reiterate, Hackman and Oldham (1975) attempted to validate the connections among organizational characteristics, personal psychological "states" and organizational and personal outcomes in a number of settings. Claiming that five "core job dimensions" directly affect a person's psychological states -- experienced "meaningfulness of work," experienced "responsibility for work outcomes" and "knowledge of work results," Hackman and Oldham found that workers and their organizations varied in the successful achievement of desired outcomes depending on both job dimensions and states. Unfortunately, there are few data on academic professionals to validate their findings in the area of concern here (cf. Evans, Kiggundu & House, 1979). We can, however, speculate about the assumptions associated with both states and motivation in the Hackman and Oldham model.

There is good reason to believe that the teaching role does not, in fact, provide opportunities to achieve the psychological state of experienced meaningfulness in work. While teaching does seem to provide settings which can accommodate the core job dimensions of skill variety and autonomy, it lacks task identity, task significance and feedback. For example, task identity would require faculty to identify with the "whole" student as he/she grows and develops over a period of time. Instead, student contact hours are usually confined to classroom settings which constrain both faculty and students to behaviors which may not reveal the latent educational benefits which have accrued to students. Faculty commonly see their teaching role as contributing to only a small portion of the cognitive capacity of the student. Not only are the non-cognitive aspects of student development usually excluded from faculty goals, but even the cognitive objectives for students are vaguely and variously defined across departments and the faculty within them. If "task identity" is necessary to experienced meaningfulness, the satisfactions potentially forthcoming from teaching will be difficult to achieve.

Nor, in fact, will "task significance" in teaching provide the faculty with experienced meaningfulness. While faculty have been socialized into believing that the profession they entered has social significance -- i.e., that their impact on students will have positive social value -- such beliefs find little reinforcement in the classroom setting. This is due, in part, to the difficulty in partialing out educational from genetic, familial, and other environmental influences. The long-term benefits to society of an educated populace are quite remote from faculty concerns in teaching (Rowen, 1978, to the contrary, notwithstanding), and, even if faculty are aware of the importance of their roles, it is extremely difficult to make that awareness continually meaningful. As Hackman and Oldham (1974a) note, work has task significance when "the job has a substantial impact on the lives or work of other people -- whether in the immediate organization or in the external

environment." The ambiguity in definition both of "significance" and "impact" raises some question as to whether faculty are enabled to sense "meaningfulness" in their teaching, and, hence, whether they may find sufficient satisfaction of this important need.

Finally, similar questions can be raised as to whether the core job dimension of "feedback" can contribute to experienced meaningfulness in teaching. As is well-known, feedback to faculty about their teaching is infrequent, unsystematic and often ambiguous or irrelevant to this desired psychological state. Feedback, in the Hackman and Oldham model, is predicted to influence "knowledge of the actual results of the work activities", the third psychological state (or "need", in our sense in this paper). Hence, in the absence of useful feedback, faculty will not find this need satisfied through teaching. In sum, as with other theories discussed earlier, the Hackman and Oldham model of work motivation also provides insights as to the sources of faculty satisfactions and the failures in conditions of academic work to provide for those satisfactions. Importantly, the reactions of faculty to the absence of satisfactions can also be predicted from the model. Depending on the strength of the faculty need for growth and achievement through teaching, there will be varying degrees of withdrawal of effort expended in the teaching enterprise.

We turn now to the final of the three need theories discussed above -- the Herzberg hypothesis of a dual continuum. Again, to reiterate briefly, Herzberg's argument runs as follows:

The most essential understanding that emanates from these essays is not only the fact that man exists as a duality but that the two aspects of man are essentially independent; furthermore, each aspect has a system of needs that operate in opposing directions. Meeting the needs of one facet of man has little effect on the needs of the other facet. When we think of man, we must ask two questions. First, how happy is he? Then a distinctly separate question: How unhappy is he? If a starving artist is questioned about his job satisfaction, he might reply that he loves what he is doing but is much dissatisfied with his hygiene. Typically, measurement psychologists would have given him a 50-percent morale score and thereby missed the whole point. (Herzberg, 1966, p. 169)

Herzberg was arguing, in other words, that man's needs for growth and fulfillment are satisfied independently of his needs for stability and security (his so-called hygienic needs). Moreover, quite different sets of environmental conditions must be addressed to each. Growth needs or motivators are addressed through the intrinsic satisfactions inherent in the performance of the work -- satisfactions or pleasurable feelings strongly related to the Hackman and Oldham critical psychological states. That is, intrinsic or internal satisfactions will come from a person's experiencing the work as meaningful, from his perceiving himself as responsible for the outcomes and from having direct knowledge of the results of his efforts.

But other sets of needs -- Maslow's deficiency needs; Herzberg's hygienes -- are most responsive to other conditions in the environment. Thus, the needs for physiological safety, for security, for stability and continuity of employment, for other people who care about one's feelings and well-being are satisfied largely through extrinsic rewards. In this category are money, office space in excess of what is needed, perquisites, rank and titles, special awards, contracts affording security of position, holidays, and a congenial social environment.

There is good reason to believe that faculty are both dissatisfied and satisfied simultaneously, as the Herzberg model would predict. The model helps us to understand the ubiquitous disgruntled plaint of most academics about the uncaring administration and about various aspects of the work which prevent them from doing their work. These may be diagnosed into those which deal with dissatisfactions and those which are important to satisfactions. If a hierarchical relationship among these needs is not assumed, it is conceivable that faculty can tolerate a considerable amount of dissatisfaction without an impairment of their motivation. The reason follows from the central theme of this paper -- namely, that for most professionals "intrinsic"

satisfactions are the most important ingredients in their motivation to work. In other words, if faculty derive most of their satisfactions from the performance of the work itself (both its processes and its gratifications -- see Parsons, Bales and Shils, 1953 on this point), then academic leadership can attend to the core job dimensions of department and institutional life from a more balanced perspective. An important consideration here (to which we give limited attention because of space) is the relationship between external rewards and internal satisfactions - an area of great relevance, as the recent empirical research on attribution theory attests (e.g., Pfeffer & Lawler, 1980).

Cross Occupational Differences in Satisfactions from Work

Again because of space limitations, we address this topic only summarily. Needed is an intensive discussion of the various need theories as they might be applied comparatively across occupations. In the few paragraphs remaining, we touch briefly on some of the more important considerations.

The argument that the satisfactions of academic professionals are similar to those of other professionals is not so clearcut as a first reading would suggest. Empirical studies of research on professions (e.g., Cullen, 1978) make few distinctions among professions, except in terms of their organizational structures. The special natures of the products or services delivered by each profession receive little attention. In point of fact, however, if the satisfactions of professionals derive primarily from the work itself, it may well be that different kinds of satisfactions obtain for professionals in different fields. Further, it is reasonable to assume that the products and services provided by academic professionals are unique. In their uniqueness, moreover, they are qualitatively so different that the "usual" satisfactions thought to accrue to faculty members qua

professionals may not be forthcoming. For example, in most other professions the outcome of worker effort is a tangible product or service. In addition, the technologies required to produce the product or service have been clearly identified (originally in academic research settings) and have been confirmed in mandates set forth by national professional associations. While there are still unsolved problems in each profession, and while some problems may require unique solutions (cf., Perrow, 1970), the repertoires of behaviors needed to solve the vast majority of problems encountered in other professional work are well known and documented. Generally, it is only in the rare requirement for a creative combination of a number of technological and design features that there are few or no known routines. These opportunities occur more frequently in professions where the client demands a "unique" service or product in each encounter with the professional.

"Intrinsic" satisfactions for academics have a more cognitive flavor than do those in other professions. For academics, the processes of ratiocination are closely linked to the central purposes of their institutions and have much to do with the reasons faculty were attracted to the profession (Parsons & Platt, 1973). There are at least two prime sources for intrinsic academic satisfactions: the "efficiency" with which learned problem-solving algorithms can be called into play; and the qualitative, esthetic appeal that arises from the sense that a new order has been created out of quondam randomness -- or alleged randomness. In the first case, the swiftness of access and response to personal memory banks of theory and clinical skills (March & Simon, 1958, pp. 177 ff.) give pleasure to the performer -- confirmation of competencies developed over years of effort. In the second instance, the pleasure gained from a sense of parsimony -- from convergent thinking, from unifying, saving, conserving -- in short, from "having an experience" in

Dewey's terms. As noted above, the first of these may be more common in the experience of professionals other than academics. Certainly, in the teaching domain on the undergraduate level, such processes are rare. The second, on the other hand, may be more prevalent among academics for whom lucubration often brings insights which seem to explain life more simply.

Also important in making the distinction between academic and other professionals is the fact that in other professions the product or service sought as an outcome requires direct contact with client or clients, and changes can be expected to occur within the duration of the professional relationship. The intrinsic satisfaction above, which is derived from manipulation of cognitive symbols, is thus validated through feedback from external sources. As noted earlier, this kind of feedback is usually not as forthcoming in teaching. The routine technologies of postsecondary teaching are not well established with anything near the sophistication of the secondary and elementary levels, however inadequate these latter may still be viewed. In addition, unique solutions to special teaching problems tend toward the esthetic, rather than the technological. That is, creative teaching tends to be viewed as an art form rather than as an analyzable process. Indeed, it is difficult for academics to agree on what a "special teaching problem" is, since virtually all teaching situations are assumed to be unique. Equally important, in contrast to other professions, standards of quality or/and definitions of optimum service in teaching are ambiguous and in continuous arbitration. Hence, recourse to the intrinsic satisfactions noted earlier (e.g., use of algorithms) is less available. Self-congratulations for adept, efficient use of skills are not likely to be forthcoming when the technologies are either not known or in sharp debate. And, finally, since many of the outcomes of teaching are achieved well beyond the time frame of the professional-client interaction, validation of internal feelings

of satisfaction is not readily available.

Clearly, these are beginning notions only. A complete analysis of the differences in satisfactions across professions would require considerably greater space. For the interested reader, a start has been made in the study of this subject as is evidenced in the works of Centers & Bugental (1966), Dunnette, Campbell & Hakel (1967), Goodwin (1969 a, b), Doll & Gunderson (1969), Russell (1975), Kelleberg & Griffin (1978), and Gruenberg (1980).

Conclusions

Quite clearly, there are many insights to be gained about faculty satisfactions from a close examination of the various theories extant. In this paper, we have looked closely at job facets theory, expectancy, equity, and need, need deficiency and two-factor theory. Not included but also of great use are role theory, personality theory and flow theory. Each of these approaches to the study of faculty satisfaction provides slightly different perspectives. In considering the application of the theories to academic life, it may appear that the theories seem to point more forcefully toward the absence of satisfactions or conditions through which satisfactions can be achieved. While such a bias is unintentional, it may, in fact, suggest that we still are quite unsure about what does make the occupation of teaching and doing research in higher education as satisfying as it must be. Surely the following quotation illustrates how little we know and how much we should. As Phenix (1975) observes:

When I enter a class, I have a sense that a transaction of the utmost importance is about to take place. I have a sense of excitement, whether I am teacher or student, born of the realization that what is to occur, or may occur, goes to the very core of the human adventure. I feel that as a class we are about to be initiated into the mysteries that the symbolic discoveries of mankind have made available for enjoyment and use by generations to come. This feeling of expectancy, wonder, and gratitude marks the classroom experience, like

all celebrations, as one of consummation. It is a good-in-itself, a singular instance of what living is for. That is why the concept of learning as preparation for living in the world beyond the school has never appealed to me.

The only justification for a class is that a transaction of extraordinary and to some degree unforeseeable and unpredictable character can occur, in which teacher and students together constitute a gathered community lifted to a heightened level of understanding by common active engagement with symbolic materials of substantial human significance.

As I reflect on my experience as a teacher, what stands out for me personally is not what I or others regard as my success or failures but the gratitude I feel for the unparalleled privilege of participating in one of the most exhilarating activities of mankind -- the social celebration of the meaning of human existence in all its majesty and mystery.

Bibliography

- Adams, J. Stacy, "Inequity in Social Exchange," in Leonard Berkowitz (ed.), Advances in Experimental Social Psychology, New York, Academic Press, 1965.
- Alderfer, Clayton P., "A Critique of Salancik and Pfeffer's Examination of Need-Satisfaction Theories," Administrative Science Quarterly, December, 1977, 22, 4.
- Alderfer, Clayton P., Human Needs in Organizational Settings, New York, The Free Press of Glencoe, 1972.
- Alderfer, Clayton P. & Benjamin Schneider, "On the Structure of Human Needs," Unpublished paper, Report No. 18, Yale University, August, 1969.
- Allen, David B., "Faculty Satisfaction in University Departments," Technical Report 73-46, Department of Psychology, University of Washington, Seattle, May, 1973.
- Argyris, Chris, Personality and Organization, New York, Harper & Row, Publishers, 1957.
- Astin, Alexander W. & Rite A. Scherrei, Maximizing Leadership Effectiveness, San Francisco, Jossey-Bass Publishers, 1980.
- Axelrod, Joseph, The University Teacher as Artist, San Francisco, Jossey-Bass Publishers, 1973.
- Avakian, A.N., "An Analysis of Factors Relating the Job Satisfaction and Dissatisfaction of Faculty Members in Institutions of Higher Education," Unpublished Ph.D. Dissertation, State University of New York at Albany, 1971.
- Baldrige, J. Victor, David V. Curtis, George Ecker, & Gary L. Riley, Policy Making and Effective Leadership, San Francisco, Jossey-Bass Publishers, 1978.
- Barry, Robert M. "Have We Forgotten that Teaching Is a Craft?," The Chronicle of Higher Education, April 2, 1979.
- Bess, James L., "Integrating Student and Faculty Life Cycles," Review of Educational Research, Fall, 1973, 43, 4.
- Bess, James L., "Patterns of Satisfaction of Organizational Prerequisites and Personal Needs in University Academic Departments," Sociology of Education, Winter, 1973, 46, 1.
- Bess, James L., "The Social Psychology of Commitment to Teaching," Unpublished Manuscript, New York University, 1981b.

- Bess, James L., University Organization: A Matrix Analysis of the Academic Professions, New York, Human Sciences Press, 1981a(forthcoming).
- Bidwell, Charles E., "The Administrative Role and Satisfaction in Teaching," The Journal of Educational Sociology, September, 1955, 29, 1.
- Blackburn, Robert T. & Robert J. Havighurst, "Career Patterns of Distinguished Male Social Scientists," Paper presented at the Annual Meeting of the American Educational Research Association, San Francisco, 1979.
- Bordow, Allen, "The Job Satisfaction of Lecturing Staff at Colleges of Advanced Education," Australian Psychologist, July, 1974, 9, 2.
- Bowen, Howard R., Academic Compensation, New York, Teachers Insurance and Annuity Association, 1978.
- Cares, Robert C. & Robert T. Blackburn, "Faculty Self-Actualization: Factors Affecting Career Success," Research in Higher Education, October, 1978, 9, 2.
- Carrell, M.R. & J.E. Dittrich, "Equity Theory: The Recent Literature, Methodological Considerations, and New Directions," Academy of Management Review, 1978, 3.
- Centers, Richard & Daphne E. Bugental, "Intrinsic and Extrinsic Job Motivators Among Different Segments of the Working Population," Journal of Applied Psychology, June, 1966, 50, 3.
- Clay, Rex J., "A Validation Study of Maslow's Hierarchy of Needs Theory," Research in Education, July, 1978 (ED150416).
- Csikszentmihalyi, Mihalyi, Beyond Boredom and Anxiety, San Francisco, Jossey-Bass Publishers, 1977.
- Csikszentmihalyi, Mihalyi, "Intrinsic Rewards and Emergent Motivation," in Mark R. Lepper & David Green (eds.), The Hidden Costs of Reward, Hillsdale, N.J., Lawrence Erlbaum Associates, Publishers, 1978.
- Cope, Robert G., "Bases of Power, Administrative Preferences and Job Satisfaction: A Structural Approach," Journal of Vocational Behavior, October, 1972, 2, 4.
- Cullen, John B., The Structure of Professionalism, Princeton, N.J., Petrocelli Books, 1979.
- Dornbusch, Sanford M. "Perspectives from Sociology: Organizational Evaluation of Faculty Performances" in Darrell R. Lewis and William E. Becker, Jr. (eds.), Academic Rewards in Higher Education, Cambridge, Mass., Ballinger Publishing Company, 1979.
- Dunnette, Marvin D., John P. Campbell, and Milton D. Hakel, "Factors Contributing to Job Satisfaction and Job Dissatisfaction in Six Occupational Groups," Organizational Behavior and Human Performance, May, 1967, 2, 2.

- Eckert, Ruth E., John E. Stecklein & Bradley H. Sagen, "College Faculty Members View Their Jobs," AAUP Bulletin, December, 1959, 45, 4.
- Evans, Martin G., "Conceptual and Operational Problems in the Measurement of Various Aspects of Job Satisfaction," Journal of Applied Psychology, April, 1969, 53, 2.
- Ewen, Robert B., "Weighting Components of Job Satisfaction," Journal of Applied Psychology, February, 1967, 51, 1.
- Finkelstein, Martin J., "Three Decades of Research on American Academics," Unpublished Ph.D. Dissertation, State University of New York at Buffalo, 1978.
- Flanagan, John C., "The Critical Incident Technique," Psychological Bulletin, July, 1954, 51, 4.
- Frankel, Joanne, "Junior College Faculty Job Satisfaction," Unpublished paper, ERIC Clearinghouse for Junior Colleges, University of California, Los Angeles, October, 1973.
- French, John R.P. Jr., C. John Tupper & Ernst F. Mueller, Work Load of University Professors, Institute for Social Research, Cooperative Research Project No. 2171, The University of Michigan, Ann Arbor, Michigan, 1965.
- Goodwin, Leonard, "Occupational Goals and Satisfactions of the American Work Force," Personnel Psychology, 1969, 22.
- Goodwin, Leonard, "The Academic World and the Business World: A Comparison of Occupational Goals," Sociology of Education, Spring, 1969, 42, 2.
- Gruenberg, Barry, "The Happy Worker: An Analysis of Educational and Occupational Differences in Determinants of Job Satisfaction," American Journal of Sociology, September, 1980, 86, 2.
- Gustad, John W., The Career Decisions of College Teachers, SREB Research Monograph, Series #2, Atlanta, Southern Regional Education Board, 1960.
- Gutek, B.D., "Satisfaction Guaranteed -- What Does It Mean?," Social Policy, 1978, 9, 2.
- Hackman, J. Richard & Greg R. Oldham, "Motivation Through the Design of Work: Test of a Theory," Technical Report No. 6, Department of Administrative Sciences, Yale University, December, 1974a.
- Hackman, J. Richard & Greg R. Oldham, "The Job Diagnostic Survey: An Instrument for the Diagnosis of Jobs and the Evaluation of Job Redesign Projects," Technical Report No. 4, Department of Administrative Sciences, Yale University, May, 1974b.
- Harshberger, Richard F., "Job Satisfaction/Dissatisfaction and the Motivation to Work of Full-Time University Teaching Faculty: An Analysis," Unpublished Ph.D. Dissertation, North Carolina State University at Raleigh, 1975.

- Henrichs, John R., "A Replicated Study of Job Satisfaction Dimensions," Personnel Psychology, Winter, 1968, 21.
- Herzberg, Frederick, Work and the Nature of Man, Cleveland, World Publishing, 1966.
- Herzberg, Frederick, Bernard Mausner & Barbara Bloch Snyderman, The Motivation to Work, New York, John Wiley & Sons, 1959.
- Hind, R.R. Sanford M. Dornbusch & W. Richard Scott, "A Theory of Evaluation Applied to a University Faculty," Sociology of Education, Winter, 1974, 47, 1.
- Hodgkinson, Harold L. "Adult Development: Implications for Faculty and Administrators," Educational Record, Fall, 1974, 55, 4.
- Hoth, Evelyn K., "Factors of Faculty Job Satisfaction as Related to Communication Satisfaction," Unpublished Ph.D. Dissertation, Wayne State University, 1979.
- House, Robert J. & Lawrence A. Wigdor, "Herzberg's Dual-Factor Theory of Job Satisfaction and Motivation: A Review of the Evidence and a Criticism," Personnel Psychology, 1967, 20.
- James, Lawrence R. & Allan P. Jones, "Perceived Job Characteristics and Job Satisfaction: An Examination of Reciprocal Causation," Personnel Psychology, Spring, 1980, 33, 1.
- Kalleberg, Arne L. & Harry J. Griffin, "Positional Sources of Inequality in Job Satisfaction," Sociology of Work and Occupations, November, 1978, 5, 4.
- Katz, Ralph & John Van Maanen, "The Loci of Work Satisfaction: Job, Interaction, and Policy," Human Relations, May, 1977, 30, 5.
- Katzell, Raymond A. & Daniel Yankelovich, Work Productivity and Job Satisfaction, New York, Harcourt Brace Jovanovich, Inc., 1975.
- King, Nathan, "Clarification and Evaluation of the Two-Factor Theory of Job Satisfaction," Psychological Bulletin, 1970, 74.
- Ladd, Everett C. & Seymour M. Lipset, The Divided Academy, New York, McGraw Hill Book Company, 1975.
- Landy, Frank J., "An Opponent Process Theory of Job Satisfaction," Journal of Applied Psychology, October, 1978, 63, 5.
- Lawler, Edward E., Motivation in Work Organizations, Monterey, California, Brooks/Cole Publishing Company, 1973.
- Lawler, Edward E. & J. Lloyd Suttle, "A Causal Correlational Test of the Need Hierarchy Concept," Organizational Behavior and Human Performance, 1972, 7.

- Lawler, Edward E. III & J. Lloyd Suttle, "Expectancy Theory and Job Behavior," Organizational Behavior and Human Performance, June, 1973, 9, 3.
- Levinson, Daniel, The Seasons of a Man's Life, New York, Knopf, 1978.
- Levinson, Harry, The Great Jackass Fallacy, Boston, Division of Research, Graduate School of Business Administration, Harvard University, 1973.
- Light, Donald W. Jr., "The Academic Career," Dialogue, 1973, 6, 3.
- Light, Donald W., L.R. Mardsen & T.C. Corl, The Impact of the Academic Revolution on Faculty Careers, ERIC/AAHE Research Reports, No. 10, Washington, D.C., American Association for Higher Education, 1973.
- Locke, Edwin A., "The Nature and Causes of Job Satisfaction" in Marvin E. Dunnette (ed.), Handbook of Industrial and Organizational Psychology, Rand McNally College Publishing Company, 1976.
- Lodahl, Thomas M., "Patterns of Job Attitudes in Two Assembly Technologies," Administrative Science Quarterly, March, 1964, 8, 4.
- Lowry, Richard J. (ed.), The Journal of A.H. Maslow, Vol. I, Monterey, California, Brooks/Cole Publishing Company, 1979.
- Mann, Richard D. and others, The College Classroom, New York, Harper & Row, Publishers, 1954.
- March, James G. & Herbert A. Simon, Organizations, New York, John Wiley & Sons, 1958.
- Maslow, Abraham H., Motivation and Personality, New York, Harper & Row, Publishers, 1954.
- McKeachie, Wilbert J. "Perspectives from Psychology: Financial Incentives Are Ineffective for Faculty," in Darrell R. Lewis & William E. Becker, Jr. (eds.), Academic Rewards in Higher Education, Cambridge, Ballinger Publishing Company, 1979.
- Miskel, Cecil, "Educator Work Motivation: A Review and Integration of Selected Theoretical and Empirical Efforts," Paper presented at the Annual Meeting of the American Educational Research Association, Boston, April, 1980.
- Mitroff, I. & Ralph R. Kilmann, "The Stories Managers Tell: A New Tool for Organizational Problem Solving," Management Review, 1975, 64.
- Murray, Henry A., Exploration in Personality, New York, Oxford University Press, 1938.
- National Academy of Sciences, Mobility of Ph.D.'s Before and After the Doctorate, Washington, D.C., National Academy of Sciences, 1971.
- Neumann, Yoram, "Predicting Faculty Job Satisfaction in University Departments," Research in Higher Education, 1978, 9.

- Nicholson, Edward A. & Robert C. Miljus, "Job Satisfaction and Turnover Among Liberal Arts College Professors," Personnel Journal, November, 1972, 51, 11.
- Parsons, Talcott & Gerald M. Platt, The American Academic Profession: A Pilot Study, Cambridge, Harvard University, 1968.
- Parsons, Talcott, Robert F. Bales & Edward A. Shils, "Phase Movement in Relation to Motivation" in Working Papers in the Theory of Action, New York, The Free Press, 1953.
- Pfeffer, Jeffrey & John Lawler, "Effects of Job Alternatives, Extrinsic Rewards, and Behavioral Commitment on Attitude Toward the Organization: A Field Test of the Insufficient Justification Paradigm," Administrative Science Quarterly, March, 1980, 25, 1.
- Phenix, Philip H., "Teaching as Celebration" in Thomas H. Buxton and Keith W. Prichard (eds.), Excellence in University Teaching, Columbia, South Carolina, University of South Carolina Press, 1975.
- Porter, Lyman W., "Job Attitudes in Management: Perceived Satisfaction and Importance of Needs," Institute of Industrial Relations, Reprint No. 229, University of California, Berkeley, 1964.
- Quinn, Robert P., "Locking-in As a Moderator of the Relationship Between Job Satisfaction and Mental Health," Unpublished paper, Survey Research Center, The University of Michigan, n.d.
- Quinn, Robert P. & T.W. Mangione, "Evaluating Weighted Models of Measuring Job Satisfaction: A Cinderella Story," Organizational Behavior and Human Performance, August, 1973, 10, 1.
- Quinn, Robert P. & Linda J. Shepard, The 1972-73 Quality of Employment Survey, Ann Arbor, Survey Research Center, Institute for Social Research, 1974.
- Rich, Harvey E. & Pamela M. Jolicoer, "Faculty Role Perceptions and Preferences in the Seventies," Sociology of Work and Occupations, November, 1978, 5, 4.
- Richardson, Richard C. Jr. & Clyde E. Blocker, "Note on the Application of Factor Analysis to the Study of Faculty Morale," Journal of Educational Psychology, 1963, 54, 4.
- Rosencrance, Francis C., The American College and Its Teachers, New York, The MacMillan Co., 1962.
- Russell, Kevin J., "Variations in Orientation to Work and Job Satisfaction," Sociology of Work and Occupations, November, 1975, 2, 4.
- Russell, John D., "Faculty Satisfactions and Dissatisfactions," Journal of Experimental Education, December, 1962, 31, 2.

- Ryans, David G., "An Analysis and Comparison of Certain Techniques for Weighting Criterion Data," Educational and Psychological Measurement, Autumn, 1954, 14, 3.
- Sheehy, Gail, Passages: Predictable Crises of Adult Life, New York, Dutton, 1976.
- Smelser, Neil J., "Epilogue" in Talcott Parsons & Gerald M. Platt, The American University, Cambridge, Harvard University Press, 1973.
- Smith, Patricia C., Lorne M. Kendall & Charles L. Hulin, The Measurement of Satisfaction in Work and Retirement: A Strategy for the Study of Attitudes, New York, Rand, McNalley, 1970.
- Startup, Richard, Michael Gruneberg, & Patrick Tapsfield, "The Satisfaction of University Staff with Their Teaching," Research in Education, May, 1975, No. 13.
- Staw, Barry M., "Rationality and Justification in Organizational Life" in Barry M. Staw & Larry L. Cummings, Research in Organizational Behavior, Vol. 2, Greenwich, Connecticut, Jai Press Inc., 1980.
- Swierenge, L.G., "Application of Herzberg's Dual-Factor Theory to Faculty Members in a University," Unpublished Ph.D. Dissertation, Western Michigan University, Kalamazoo, Michigan, 1970.
- Theophilus, Donald R. Jr., "Professorial Attitudes Toward Their Work Environment at the University of Michigan," in Galen N. Drewry (ed.), The Instructional Process and Institutional Research, n.p. Association for Institutional Research, 1967.
- Trow, Martin & Oliver Fulton, "Research Activity in American Higher Education," in Martin Trow (ed.), Teachers and Students, New York, McGraw Hill Book Company, 1975.
- Varela, Jacobo A., "The Design of Persuasions" in Psychological Solutions to Social Problems, New York, Academic Press, 1971.
- Voydanoff, Patricia, "The Relationship Between Perceived Job Characteristics and Job Satisfaction Among Occupational Status Groups," Sociology of Work and Occupations, May, 1978, 5, 2.
- Wanous, John P., "A Causal-Correlational Analysis of Job Satisfaction and Performance Relationships," Journal of Applied Psychology, 1974, 59.
- Wanous, John P. & Edward E. Lawler III, "Measurement and Meaning of Job Satisfaction," Journal of Applied Psychology, 1972, 56, 2.
- Weiner, Bernard, Theories of Motivation, Chicago, Rand McNally College Publishing Company, 1972.
- White, Robert W., "Ego and Reality in Psychanalytic Theory," Psychological Issues, Monograph 11, 1965, III, 3.

Whitlock, Gerald H., "The Experiential Bases and Dimensions of Faculty Morale at a State University," Educational Resources Information Center, Washington, D.C., ED# 014 446, 1965.

Wilson, Logan, The Academic Man, New York, Oxford University Press, 1942.

Wood, Louise A., "Conditions of Work of Faculty and Administrators," in John W. Gustad (ed)., Faculty Utilization and Retention, Winchester, Massachusetts, New England Board of Higher Education, 1960.