A MODEL OF WORK-RELATED INCOME AND ALIENATION

by

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Abstract

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There has been limited research on income as a source of alienation, and weak empirical support, despite theoretical support for such an effect. Korman (1992) has concluded that the direction and degree to which income affects feelings of alienation, if at all, is unclear. The present study investigates level of income and income-related variables (i.e., pay satisfaction, change in amount of income and time since that change, control over amount of income, perceived value of money) as sources of personal and social alienation, in an attempt to introduce a model connecting these variables. A sample of 305 male and female full-time workers was recruited to respond to the questionnaire designed for this study. A hierarchical multiple regression analysis design was used as the main design of the study. In line with the trend in the literature supporting the positive effect of higher income on well-being, this study concludes that higher income is related to lower levels of personal and social alienation. However, two moderating

effects are found. First, the perceived value of money was found to interact with the relationship of income and social (but not personal) alienation such that the more one values money, the stronger is the relationship between income and social alienation. Second, the time interval since the change in amount of income is found to moderate the relationship between the change in income and alienation such that the less time that has elapsed since the change in income, the stronger the relationship between change in amount of income and alienation. In addition, this study concludes that higher pay satisfaction and higher control over amount of income are also related to lower levels of personal and social alienation, and together with income and the moderating variable portray a picture of the effect of one's financial reality (objective and subjective) on one's feelings of alienation. Limitations of the study are discussed and implications for organizations, theoretical implications, and suggestions for future research are presented.

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CHAPTER 1

OVERVIEW

Introduction

Manifestations of alienation are pervasive in modern society and are not limited to the workplace. Popular research data show an increase in feelings of alienation over the period 1972-92 (Collingwood, 1993). According to Murphy (1985) contemporary society reflects the widespread alienation experienced by people both in the workplace and in social environments. Additionally, Johnson (1977) notes that alienation affects the lives of all individuals, especially those who live in technologically advanced societies. Durkheim (1947) views alienation as the perceived lack of socially approved means and norms to guide one's behavior for the purpose of achieving culturally prescribed goals, and Seeman, Seeman & Budros (1988) described the classic concerns alienation raises as "the problem of power and powerlessness, the centrality of work and of alienated labor, and the contours and consequences of the absence of community (Seeman et al., 1988, p. 185). Overall, alienation could lead to behavior that has a negative impact on individuals, organizations, social institutions, and society in general (Korman, 1992). This makes a compelling case for studying the alienation phenomenon (Erikson, 1986; Seeman, 1971, 1983).

Significance of the Issue

The study of alienation is relevant to researchers, individuals/ employees, and organizations.

For researchers, the lack of conceptual clarity about the term alienation necessitates further conceptualization and refinement, both theoretically and empirically (Erikson, 1986; Kanungo, 1982).

For individuals, the threat of alienation to the quality of life and well-being in the workplace and elsewhere (Erikson, 1986) creates a need for a better understanding of the sources of the phenomenon. Alienation involves feelings of loss, lifelessness, spiritlessness, apathy, lack of interest, withdrawal, and lack of concern (Korman, 1992). Alienation also inhibits intrinsically motivated exploration of unfamiliar environments, and hence inhibits growth, development, and survival (Maddi, Hoover, & Kobasa, 1982). Due to high mobility in contemporary society, alienation has become pervasive, manifesting itself in the loss of the nuclear as well as the extended family (Murphy, 1985). By focusing on the individual, alienation studies help one to understand the threat of alienation and its sources and give hope for the improvement of peoples' quality of life and work.

Organizations are affected by alienation's effect on their employees. The alienated person loses his or her sense of focus of time and place, which could impede future growth in any action, work-related

or otherwise (Korman, 1992). More specifically, feelings of alienation may result in reduced effort and lower performance and increased tardiness (Cummings & Manring, 1977). Moreover, alienated employees pose a threat to the organization through increased substance abuse and absenteeism and decreased productivity and effectiveness (Kanungo, 1982; Murphy, 1985). Efraty, Sirgy and Claiborne (1991) found that alienation increases need deprivation, which in turn decreases job satisfaction, and this in turn has a negative effect on job involvement and organization identification. Also, according to Murphy (1985), "individuals are not only reacting to feelings of alienation in the organization but are bringing into the organization the negative spill-over effects of this phenomenon in their private lives" (p. 84). In order to avoid the effects of alienation and better utilize their human resources in terms of productivity and effectiveness, organizations must understand the nature and causes of the alienation phenomenon.

The Present Study's Approach

Theoretical and empirical research on alienation has proceeded in three major directions. One avenue of research is the sociological/psychological study of the concept of alienation and its measurement (Cummings & Manring, 1977; Erikson, 1986; Kanungo,

1982; Korman, 1992; Maddi, Kobasa, & Hoover, 1979; Seeman, 1971, 1975). Another direction of research is the manifestation of alienation in life and work (Cummings & Manring, 1977; Gilbert, 1977; Maddi, Hoover, & Kobasa; 1982; Schmitt, 1983; Schwalbe, 1986; Seeman, 1967, 1983; Seeman et al., 1988; Silver, 1986; Tussing, 1973). The third area of research is the sources/predictors of feelings of alienation, mostly at work (Blauner, 1964; Burris, 1983; Geyer, 1980; Johnson, 1973; Korman, 1992; Seeman, 1976).

The present study focuses on this third area of research--the sources of alienation as a function of work experience--by investigating the relationship between work-related income and alienation. Korman (1992) suggested three major sources of alienation, one of which is low income, and tested the hypothesis that higher income is associated with lower levels of personal and social alienation. However, his study's results did not allow for a clear conclusion regarding the relationship between income and alienation.[1] Korman therefore stated:

> We believe it is time that we shake ourselves free of the illusions so many of us have had for so long about the significance of income and that we begin to learn through systematic research and theory more about the social and personal factors which

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[1] See details in the following section.

> impact on the relationship between income and feelings of personal and social alienation. (Korman, 1992, p. 254)

Previous research studies that investigated the relationship between income and various measures of well-being found a direct relationship between the two (Adelmann, 1987; Crohan, Antonucci, Adelmann, & Coleman, 1989; Campbell, 1976; Diener, Sandvik, Seidlitz, & Diener, 1993; Duffy, 1989; Kessler, 1982; Mullis, 1990; Wheaton, 1978). For example, Campbell (1976) tested family income and found it to be a predictor of well-being. Mullis (1992) examined different measures of economic well-being and concluded that economic well-being based on permanent income, annuitized net worth, and household economic demands is the best predictor of psychological well-being (although the percent of psychological well-being variance explained by economic well-being was small).

In general, a negative relationship between socioeconomic position and psychological distress has consistently been documented in surveys (Dohrenwend, 1970, 1973; Dohrenwend & Dohrenwend, 1969; Fried, 1975; Kessler & Cleary, 1980; Langner & Michael, 1963; Myers, Lindenthal, & Pepper, 1974). Specifically, Wheaton (1980) found that socioeconomic status is negatively related to measures of alienation and positively related to measures of social participation. Wheaton (1978)

also found that socioeconomic status is negatively related to measures of psychological disorder. Finally, Otto, & Featherman (1975) found income to be positively related to social participation and negatively related to the alienation measure of self-estrangement. This research support for a relationship between income and well-being suggests that the relationship between income and alienation merits further investigation.

Contribution of the Study

In the present study I attempt to delineate the nature of the relationship between income and alienation theoretically and empirically by presenting a more extensive model. This model includes as its basis the hypothesis on the negative relationship between income and alienation, and it presents additional variables that constitute the theoretical framework for this relationship. Underlying the model is the notion of personal construction of reality. It is suggested that the effect of income on alienation is only to a limited degree a result of the objective reality of amount earned, and mostly a result of personal construction of one's financial reality. Therefore, an individual's beliefs, expectations, assumptions, and values regarding income and money play

an important role in the way his or her income will affect his or her level of alienation.

The implications of income and its perception as being a predictor of alienation are both theoretical and practical. Theoretically, income and its perception can be added to the overall framework of understanding alienation and its sources, and might also lead to prediction of its occurrence. In a practical sense, the degree of control over income by management and employees could be an objective way to identify and even combat alienation in the workplace.

CHAPTER 2

LITERATURE REVIEW

Definitions of Key Concepts

Income defined

In this study income will refer to that portion of one's personal income that is derived from work. It is suggested in this study that alienation is related to variability in income level. However, since alienation is an individual psychological state, it is claimed that personal income (which is affected by one's work effort, abilities, and skills), is the most important factor in one's personal psychological perception. Other income (e.g., spouse's, family's, interest, investment) is either a result of others' accomplishments or is affected by exogenous variables (e.g. market value, interest rates, luck). Therefore, income as defined here will not include spouse or family income or other non-work-related income such as interest, investment, or inheritance income. However, since it is acknowledged that such additional sources of income might affect one's alienation level, or the importance of personal job related income to alienation, the effect of spouse income will be specifically hypothesized about, and the effect of other income will be accounted for in the data analysis procedures.

Alienation defined and conceptualized

Several different definitions of the concept alienation exist, each implying a different theoretical approach to the investigation of this phenomenon.

The English term alienation is derived from the Latin noun alienatio, derived from the Latin verb alienare, which means to "take away" or to "remove". The verb alienare was used in Latin in the context of causing a separation to occur, and in this sense alienation referred to "a state of separation or dissociation" between two elements (Klein, 1966). The Merriam-Webster dictionary defines alienation as "a withdrawing or separation of a person or a person's affections from an object or position of former attachment", and as "estrangement" as in "alienation from the values of one's society and family".[1]

The concept of alienation is applicable to many areas of life and several fields of research (e.g., sociology, philosophy, labor economics, psychology). However, according to Kanungo (1982), there is a state of confusion in all fields and specifically in the psychology literature with

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[1] It is important to note here the difference between the term alienation as was used by Marx and that used in the fields of psychology/sociology and in this study. According to Kanungo (1982) Marx spoke of alienation of labor rather than spiritual alienation (which is the interpretation of the term in this study). Also, Schwalbe (1986) notes that alienation as a concept in Marxism is not the alienation used in mainstream sociology of work. While Marx referred to workers' lack of control over their labor, sociology refers to an assortment of bad feelings aroused by one's work situation.

regard to the definition and conceptualization of alienation, for five major reasons: 1) the equivocal usage of the concept in terms of level of analysis (i.e. individual, group, organization); 2) the fact that measurement of the concept does not always align with its description; 3) the failure to distinguish the phenomenon from its causes and effects; 4) the failure to distinguish between alienation as a cognitive state and as an affective state; and 5) the failure to distinguish between situational and dispositional determinants of alienation.

In his treatment of the term alienation, Korman (1992) dealt with all five of the confusions mentioned by Kanungo (1982). He used one level of analysis--the individual; he developed tailored measures to match his original definitions; he distinguished between causes and effects; he specifically defined alienation as an affective state; and, finally, he gave consideration to the difference between situational and dispositional causes of alienation. In this sense, Korman's framework and definitions of personal and social alienation, and the measures he developed provide a sound basis for an investigation of alienation.

Seeman (1975, 1976) did extensive conceptual and empirical work on alienation. He proposed that alienation is a multidimensional concept comprised of six varieties, i.e., powerlessness, meaninglessness, normlessness, self-estrangement, social isolation, and cultural estrangement. However, Korman (1992) argued that Seeman's

multidimensional approach to alienation is neither theoretically and empirically grounded, nor clear as to its application in different conditions. Another researcher criticized by Korman (1992) is Maddi et al. (1979). According to Korman, these researchers go as far as to suggest four types of alienation and five settings in which it occurs. Again, Korman argued against this complex approach to alienation, which is not empirically supported and does not deal with statistical and theoretical problems of intercorrelations among the different dimensions. Korman's (1992) answer was to simplify and theoretically ground the definition of alienation and at the same time consider some of the dimensions suggested by Seeman (1975, 1976) and Maddi (1979), not as definitions of alienation but rather as sources of alienation (e.g., powerlessness, meaninglessness). After evaluating Seeman's and Maddi's work in comparison to Korman's, it is my opinion that although the first two researchers contributed immensely to the forming and development of alienation theory, Korman's work, in its simplicity and conciseness, has made it clearer, more empirically tangible, and (judging by his empirical work) more theoretically accurate.

Korman (1992) distinguished between two types of alienation - personal and social. He defined personal alienation as:

> *An experienced sense of interaction in the every-day world of reality when the person (or "self") who is doing the interacting*

> *perceives that it is not his/her "real, full self" who is engaging in the behavior but rather some superficial portion of that self from which the sense of the real self is somewhat distanced. These individuals view their real self as hidden, as not seeing the light of day and as different from, separate from and estranged from the expressed self, i.e. the self that does not interact with the world every day. Intrinsic here also is the belief that the real self is perceived as not being nourished by everyday interaction but as being increasingly subject to feelings of stultification and, as a result, disintegrating in significance, integrity and cohesiveness. (Korman, 1992, p. 19)*

Social alienation was defined by Korman as:

> *A sense of not being integrated into a meaningful social nexus and as not having a common framework within which to interact with others. Social alienation refers to the belief that one is "alone" in the world and that there are few places where he/she can seek social reinforcement and support from others for purposes of personal growth and for aid in the development of one's sense of personal integrity and meaning. Social alienation is the perception of oneself as being separated from others and as being isolated*

from such others as one's family, one's job and from religious, national and other cultural institutions. (Korman, 1992, p. 23)

The Income-Alienation Connection

There are compelling reasons for studying alienation in the context of work environments and work-related income. Aiken, Ferman, and Sheppard (1968) initiated the idea that absence of work or financial rewards from work might lead to feelings of alienation. In their book about economic failure and alienation, they state that "the tie of man to the workplace - and indirectly to the economic order - is the most fundamental and essential of all social relationships" (p. 65). The authors give two reasons for this statement: first, the amount of time spent at work is more than that spent with the family; and second, other social relationships are contingent on the work role. According to Aiken et al. (1968), work is the fundamental framework of the individual's identity, and it also provides social rewards, especially economic rewards, which permit a life-style consistent with that identity. Therefore, unemployment implies the loss of economic resources as well as absence of this fundamental social tie. The authors state that "if indeed the workplace is the fundamental source of the individual's

identity, then the absence of this relationship may represent the classical case of anomie" (p. 65), which the authors equate with alienation.

Researchers disagree on whether working and receiving financial rewards reduce alienation. According to Blauner (1964) there is a fashionable argument that leisure, and not work, is the solution to alienation, because work has lost its former position as the central life interest, particularly for manual workers (Dubin, 1956). Leisure time, on the other hand, enables creativity, self-expression, hobbies, and other self-focused activities. Blauner (1964) disagrees with the leisure solution to alienation and claims that "it underestimates the fact that work remains the single most important life activity for most people, in terms of time and energy, and ignores the subtle way in which the quality of one's work life affects the quality of one's leisure, family relations, and basic self-feelings" (p. 183-4). The centrality of work in one's feelings and perception of life, and thus the potential effect on one's feelings of alienation, is based on the products of work, one of which is financial rewards.[1] There is considerable evidence that paid employment has positive psychological consequences for individuals (Baruch, Biener, & Barnett, 1987; Baruch & Barnett, 1986; Barnett & Baruch, 1985;

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[1] Clearly there are other products of work, which are not the focus of this study, that may affect one's alienation level (e.g. intellectual interest, sense of usefulness, intrinsic satisfaction).

Epstein, 1983). The place of financial rewards in feelings of alienation is reflected in the following quote from Aiken et al. (1968):

> *Economic deprivation was the best predictor of anomia*[1]*...Workers who had reduced savings, increased debts, and who had done without essentials, such as food, clothing, shelter, and transportation, evidenced the greatest anomia. Conversely, the worker who suffered the least economic hardship following the plant shutdown had fewer anomie tendencies. This suggests that the greater the economic change which follows the loss of the work role, the greater will be the degree of anomia.*[2] *(Aiken et al., 1968, p. 67-69)*

Another theoretical support for the connection between economic well-being and psychological well-being is Easterlin's (1973) work on money and happiness. According to Easterlin (1973), thirty national population surveys show that greater happiness is related to higher income. The association between greater individual happiness and more money appears without exception in different countries and social

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[1] The authors equate subjective anomia with social alienation.

[2] Aiken et al.'s work reflects mostly one extreme of income level (i.e. debt, job-loss, and poverty). While the current study does not represent this level of income, as a theoretical support for the study's main line of thinking Aiken et al.'s findings are important and relevant.

systems. If money is connected with happiness, lack of money may be perceived as a threat to one's well-being and give rise to depression and emptiness, two feelings that are related to alienation (Abraham, 1917/1953)

A variety of studies show empirical support for the association between income and emotional well-being (Adelmann, 1987; Campbell, 1976; Crohan, Antonucci, Adelmann, & Coleman, 1989; Diener, Sandvik, Seidlitz, & Diener, 1993; Dohrenwend, 1970, 1973; Dohrenwend & Dohrenwend, 1969; Duffy, 1989; Fried, 1975; Kessler, 1982; Kessler & Cleary, 1980; Langner & Michael, 1963; Mullis, 1990; Myers et al., 1974; Viinamaki, Koskela, Niskanen, & Arnkill, 1993; Wheaton, 1978). For example, Kessler (1982) estimated the relative importance of income and other variables in predicting well-being. He found that among men in the labor force lack of income is the strongest predictor of distress, and that overall, income is a significant predictor of well-being. Crohan, Antonucci, Adelmann, and Coleman (1989) found that personal income was positively related to one measure of well-being (perceived control) for black women and white men, and to another measure of well-being (life satisfaction) for white women. Duffy (1989) found that education and income explain 66% of the variance in mental well-being of women heads of one-parent families. Diener, Sandvik, Seidlitz, and Diener (1993) also found significant correlations between

subjective well-being and family income in a U.S. study, and a relation between life satisfaction and affluence in an international study that included 39 countries.

Some empirical support also exists for the proposition that lower financial rewards are associated with higher alienation (Durant & Christian, 1990; Otto & Featherman, 1975; Wheaton, 1980). For example, in their study of socio economic predictors of alienation among the elderly, Durant and Christian (1990) found that health, race, education, and income were the strongest predictors of alienation. The most recent and extensive study that attempted to empirically investigate the relationship between income and alienation was done by Korman (1992). Korman's theoretical rationale for the hypothesis regarding the relationship between income and alienation consisted of several major arguments:[1]

First, based on Lapham's (1988) ideas, Korman suggested that higher income can "purchase" current personal satisfaction, and anticipated personal satisfaction (e.g., hopes and aspirations); and also

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[1] The following is the theoretical framework presented by Korman. Empirically, however, only the relationship between income and alienation, and not the whole framework, was tested by him. In this study, some theoretical arguments utilize this framework as theoretical support, but in no way is this study meant to be an empirical examination of the framework.

that higher income brings with it social value and acceptance from others.

Second, Korman developed the idea that money and income is what bonds the American nation. He claimed that money is the identity that replaces religion or family heritage for Americans, and therefore, it is the criterion by which many Americans evaluate themselves and others. In addition, he argued it is a popular view in the U.S. that money is an objective criterion for assessing one's success in business and career. The success of one's career is very important in the U.S. for assessment of one's worth as an individual. Underlying this popular belief, said Korman, is the notion that it is socially, economically, and psychologically better to be judged according to one's accomplishments rather than on the basis of factors that are accidents of birth such as one's background or ethnicity.

Third, Korman discussed the idea that migration phenomenon within and into the U.S. is explained to some extent by people's desire for a more materially satisfying life style. He therefore argued that it is reasonable to believe that many people in the U.S. emphasize material satisfaction (and not family ties and affiliation) as the way to avoid feelings of personal and social alienation.

Fourth, Korman suggested that money provides people with a sense of power and with the actual power to find life patterns that

acquire self-fulfillment. Income has this power, he argued, because it helps people to influence other people and events that stand in the way of achieving self-fulfillment.

Finally, basing his argument on Brown's (1961) ideas, Korman proposed that money reduces the anxiety one feels in undertaking the process of self growth. "Without sufficient income we are at the mercy of others, doomed to a lifetime of alienation from our personal desires and from meaningful social interaction with others, both on and off the job" (Korman, 1992, p.193).

Using several different samples and two methods for measuring alienation, Korman found that the relationship between income and alienation is generally negative but minor in terms of effect size and not significant in many cases.[1] Korman's (1992) conclusion was that "if a negative relationship exists at all between income and alienation, and we emphasize the word if, it is a very minor one" (p.196).

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[1] Korman used four different samples in his study. The relationships between income and personal alienation in those samples were: .03, -.14*, -.13**, -.14* and the relationships between income and social alienation in those samples were: .06, -.15*, -.05, -.16*. For the last three samples Korman studied the effect of gender on the results. The relationships between income and personal alienation in those three samples were, for women: -.25**, -.01, -.08 and for men: -.03, -.21**, -.18*. The relationships between income and social alienation in those last three samples were, for women: -.25**, -.05, -.18 and for men: -.07, -.04, -.16. It is clear that almost all the results, although not all significant, were in the expected direction, showing a negative tendency to the relationship between income and alienation.

In the discussion, Korman suggested that there are several reasons why the hypothesized relationship would not appear (or maybe is not) negative, and concludes that further research should identify the conditions under which income has positive and negative relationships with alienation and the conditions under which it has no relationship at all.

The hypothesis regarding a relationship between income and alienation was deducted by Korman (1992) from a base of logical historical and theoretical arguments. However, by examining the empirical results shown by Korman, one would recognize that they are sufficient neither to reject nor to accept the hypothesis. This recognition leads me to conclude, as did Korman, that more theoretical as well as empirical work is needed to reach a conclusion regarding the relationship between income and alienation.

In summary, the empirical support for the association between income and alienation has not yet been clearly determined and substantiated, although the literature provides sound theoretical support for this association. However, the theoretical model implied in the literature assumes a single and direct relationship between high income and lower alienation. There is reason to believe that the explanatory model underlying this relationship may be more complex in nature. Therefore this study's objective is to propose an extensive model of

work-related income and alienation and to test it by undertaking an empirical investigation.

CHAPTER 3

MODEL AND HYPOTHESES

A Model of Work-Related Income and Alienation

In this section a model of income and alienation is proposed. This model considers, in addition to income, other factors that are income related and that may have an influence on alienation or on the relationship between income and alienation. Figure 1 below depicts five independent variables (i.e., level of personal income, level of spousal income, satisfaction with pay, percent change in income, and control over amount of income) as main effects on the dependent variable alienation; and three interaction variables (i.e., time since change, control over amount of income, and value of money) as indirect effects on the dependent variable alienation.

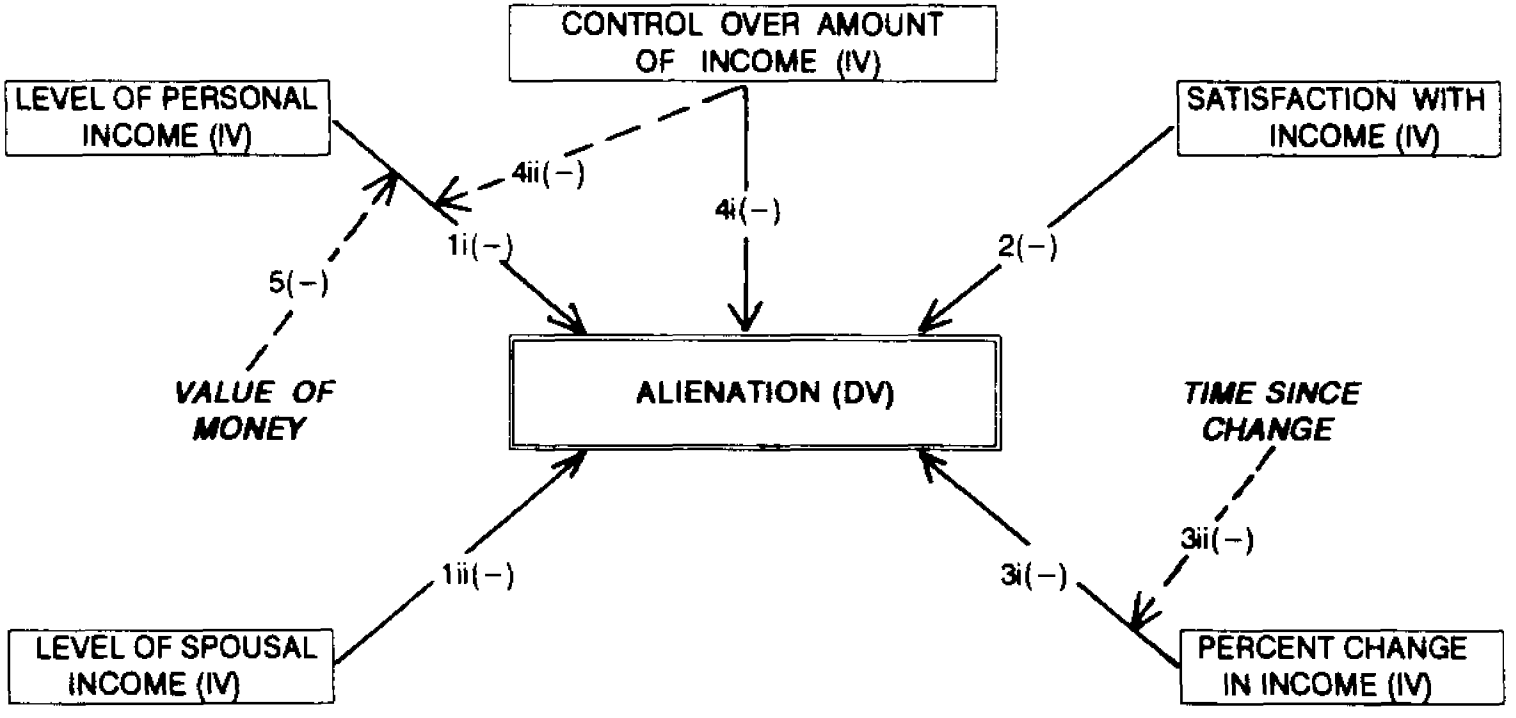
Hypotheses

Hypothesis 1 - Level of Income

Personal Income

Based on the preceding introduction and literature review it is

Figure 1: The Relationship between Income, Related Variables, and Alienation



Direct – main effect ——→
Indirect – interaction effect – – >

(IV) = Independent Variable
(DV) = Dependent Variable

1(−) = Number of hypothesis and direction of the relationship

argued that although proposing a negative relationship between income and alienation is not sufficient in itself to depict the complex influence of income on alienation, it is nonetheless an important element in the model relating the two variables. Therefore, the following hypothesis is presented:

Hypothesis 1i: The higher the level of personal income, the lower the level of personal and social alienation.

Spousal Income

In this study personal income is claimed to be the main determinant of alienation. However, it is feasible that spousal income also has an effect on the individual's feelings of alienation.[1] It is possible that some people consider their spouse's income as part of their own to a certain extent. Smith and Reid (1986) found it is agreed by many dual-earner families that both the husband's and the wife's salary

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[1] This effect, however, is not necessarily a positive one. One can feel threatened or resentful of one's spouse's income level. This is probably true for men, especially if their wives earn more then they do, although even the mere fact that a wife works can have a negative effect on a husband's well-being (Staines, Pottick & Fudge, 1986). A negative effect of spouse's income level on alienation, if it exists, is accounted for in the succeeding section by considering relative income. In accordance with the ideas there, if one is unhappy with one's spouse's level of income relative to one's own level of income, this will manifest itself in one's satisfaction with income.

should be considered family money. If people think this way, their alienation level could be affected by both their personal income level and their spouse's income level. In such a case, the basis for personal income to affect alienation (i.e., Korman's (1992) framework) holds also for spousal income (i.e., the increase in satisfaction and self worth, perceived and actual power to achieve fulfillment, etc.).

Therefore the following hypothesis is proposed:

Hypothesis 1ii: The higher the level of one's spousal income, the lower the level of that individual's personal and social alienation.

Hypothesis 2 - Satisfaction with Income

Korman (1992) suggested that a higher income can "purchase" current and anticipated personal satisfaction, and that it is also accompanied by social value and acceptance from others. As such, higher income can aid people in their attempt to avoid feelings of personal and social alienation. In this argument, income is treated as if all individuals appreciate the same dollar-value of income equally. I argue that this may not in fact be the case.

The value of income as a factor in decreasing alienation may be very much of a subjective process. The same amount of income can "purchase" satisfaction, and hence decrease alienation, for one person while not being sufficient for another. Ullah (1990) concluded in his study of income and well-being that the subjective level of financial strain, but not amount of income, was independently associated with psychological well-being. One of the ways to consider one's subjective income is to discuss one's satisfaction with income.

Satisfaction with income, as suggested by the literature on discrepancy models of pay satisfaction, reflects relative income, which is a function of actual income and other variables. Shapiro (1976) discussed various discrepancy models, all of which equate pay satisfaction to the difference of actual pay and one of the following - deserved pay, expected pay, and desired pay. Each model uses a different term, but Shapiro concluded that empirically the models are interchangeable in predicting pay satisfaction. Rice, Phillips and McFarlin (1990) suggested that pay satisfaction is affected by multiple discrepancies: what employees feel they should receive (i.e., deserved salary), what others in the employees' organization receive (i.e., others' salary), what others, doing similar work, receive (i.e., average salary), and the minimum pay for which employees will be willing to perform their work (i.e., minimum salary). Finally, Sweeny, McFarlin, and

Inderrieden (1990) used relative deprivation theory to address the issue of actual pay level relative to wants, past and future expectancies, and entitlement.

Thus, it is implied by the above literature that pay satisfaction actually reflects perceived relative income.[1] Therefore, it is not just the actual amount of income, but also the way one constructs reality to perceive one's income as satisfying, that is proposed to affect that individual's level of alienation.

To illustrate the logic of this argument, assume that an individual earns X dollars, but expects or believes that he or she should earn X + 1 dollars. Consequently, the X amount is not sufficient to prevent feelings of personal and social alienation. For example, if one avoids feelings of alienation by relying on self-worth, and that individual's self-worth is a function of his or her income, the perception of the income as not satisfying is what is relevant for that individual's level of alienation. Accordingly, if an individual earns X dollars, but would have been satisfied with only X-1 dollars, his or her income is clearly sufficient as

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[1] In the literature it is suggested that pay satisfaction be estimated by using different bases to which income is relative. However, in this study pay satisfaction is measured as a whole (and not through its components), and therefore it is not necessary to choose between the different bases.

a source of self-worth and thus for the avoidance of feelings of personal and social alienation.[1]

Another argument for the pay satisfaction effect may be provided by considering Korman's (1992) arguments that personal evaluation, identity, and success evaluation may be derived from one's level of income. While this may be true for individuals who are satisfied with their pay, individuals who believe that they are underpaid will not simply equate their actual amount of income to their level of personal success. On the contrary, these individuals can be even more frustrated and self-critical when analyzing their success in life using income level, knowing that they did not succeed in receiving the amount of income they think they deserve (according to their own past experience, entitlement feelings, others' income level, average salary in their job, etc.). Hence, the perception of income as satisfying, and not income alone, is of interest. Supporting this argument is the finding of George and Brief (1990), that pay satisfaction is positively related to life satisfaction and

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[1] This argument is especially important if one takes into account that individuals with higher income grew up, on average, in wealthier families (Becker, 1975). Thus, if we used these individuals' actual income as the criterion, we would have predicted that their alienation would be low. However, since they grew up in wealthier families their expectations or feelings of entitlement might be higher and their relative income -namely, their pay satisfaction - may not be high. Therefore, the use of actual income alone may lead to a lower prediction of alienation for these individuals than the combined use of relative income (pay satisfaction) and actual income.

that "economic outcomes of work are important to the psychological well-being of workers" (p. 365). Headey (1993) also found a significant relationship between satisfaction with income and life satisfaction. In light of the above arguments the following hypothesis is proposed:

Hypothesis 2: The higher the pay satisfaction, the lower the personal and social alienation.

Hypothesis 3 - Changes in Income

Percent change - main effect

Wachtel (1989) discusses the influence of financial rewards on feelings of well-being. He suggests Adaptation-Level theory as a tool for understanding what he calls "the apparent lack of fit between our level of affluence and our experience of well-being" (p. 22). Adaptation-Level theory's major thesis (which was developed by Harry Helson, 1964) in Wachtel's words is that "our perception of events depends not just on their 'objective' nature but on the expectations and assumptions that we bring to bear...Our perceptions are inherently comparative" (p. 22).

Wachtel (1989) suggested applying this notion to the effectiveness of financial rewards. One's expectations of financial

reward, or the level of rewards which one is used to receiving, is called one's 'adaptation level'. When people judge how well off they are economically, they take what they already have (their adaptation level) for granted, and regard that as their 'neutral point'. Only departures from that 'neutral point' are noticed and affect their feelings of well-being. Therefore, it is relevant to consider the effect of a change in income on alienation, independent of the total amount. According to Adaptation-Level Theory, not all departures have the same effect. The greater the magnitude of the change,[1] the stronger the response (Helson, 1964).

To illustrate, consider a person who earns $25,000 annually, and who received a raise of 100% and now earns $50,000, in comparison to a person who earns $40,000, and who received a raise of 25% and now earns $50,000 as well. The former person will perceive a greater departure from adaptation level than the latter person. Thus, it is suggested (based on Korman's 1992 framework) that the former person will have a more significant and effective change in self-worth, identity, evaluation of personal success, etc., than the latter person, although both individuals presently earn the same amount. Since the change in

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[1] The word change is used here since Wachtel's adaptation level model of rewards discusses departure and not increase or decrease specifically. Therefore, the reasoning of the example that follows applies to either increases or decreases in income.

self-worth, etc., will differ for the two individuals, the change in these individuals' alienation level will differ as well. The larger the percentage of change, the larger its effect on alienation.

It was noted above that this effect on alienation discussed here applies to increases as well as decreases in income. However, Kahneman and Tversky's (1984) prospect theory suggests that the loss curve is steeper than the gain curve, meaning that people consider loss more unpleasant than they consider gain pleasant. Therefore, although Wachtel's logic is true for increases as well as decreases, from prospect theory's perspective, a given decrease in income might have a stronger effect on alienation than would an increase of the same magnitude. It is important to clarify that Adaptation Level Theory or Wachtel's specific interpretation of it does not claim that an increase departure should have the same magnitude of effect as a decrease departure, but only that both departures operate according to the same process. Therefore, there is no contradiction between Wachtel's ideas, on which the arguments above are based, and the application of prospect theory to this case. The main point is that an increase and a decrease in income will have the same type of an effect on alienation, whether the slopes are identical, or the decrease slope is steeper. The following hypothesis is a general one and does not take into account the specific magnitude of the slope for different changes in income:

Hypothesis 3i: The larger the last percentage change in income in either direction, the greater the change in alienation, in the opposite direction.

Time since change - interaction effect

As was discussed above, according to Wachtel (1989) a departure from the adaptation level will affect one's feelings of well-being. However, according to the contrast and assimilation rule of Adaptation Level Theory (Helson, 1964), every such financial change will eventually assimilate into the 'adaptation level', and become part of what the individual is used to and expects (Wachtel, 1989). Therefore, what Wachtel is suggesting is basically a cyclical influence of financial rewards on well-being. Thus, when there is an increase in income, the individual notices a departure from the adaptation level and his or her alienation level is affected by it. Over time, however, the increase in income is adapted to and ceases to have a significant effect on alienation.

To illustrate, consider a person originally earning $30,000 annually who just received an increase of 20% and now earns $36,000 annually. Immediately after the increase takes place, this individual will have lower alienation associated with the higher income, which reflects a departure from adaptation level. However, after a while, he or she will adapt to the change, and will perceive the income level as if it had always has been $36,000 (i.e., neutral point/adaptation level). When comparing the

two situations--before and after adapting to the increased salary, it is predicted (based on Wachtel's idea of cyclical influence of financial rewards) that, despite the equal income level, the person in the former situation will have lower alienation than the person in the latter. This means that the more recent the increase in income, the more the change in income could be associated with reduced feelings of alienation (i.e., the stronger the negative relationship between change in income and alienation).

As was stated above, both increases and decreases in income are relevant in this process. To illustrate, assume that a person who previously earned $30,000 just suffered a decrease in income of 20%, and now earns $24,000 annually. This person will have higher alienation associated with the lower income after the decrease occurred (i.e., he or she notices a departure from adaptation level), compared to later on when he or she will adapt to the decrease (i.e., information will be assimilated into the adaptation level, at which point the alienation associated with the lower income will not be as high). Hence, similar to the statement above, the more recent the decrease in income, the stronger the negative relationship between change in income and alienation.

Therefore, I suggest the following hypothesis:

Hypothesis 3ii: The more recent a change in income, the stronger the negative relationship between the percent change in income and alienation.

Hypothesis 4 - Control Over Amount of Income

COAI - main effect

So far I have discussed income, its satisfaction perception, its change perception, and the effect of time on the change perception. In each of these discussions, income level was a given for the individual, and only the perceptions of the income were in the individual's control. It is usually the case, that once a person is working, and is receiving a certain amount of income, he or she has low control over changing that amount. Some people, however, may have more power over the amount of their income than others, depending on the composition of their income. While some workers receive a fixed amount of income, others may have additional components in their income such as overtime, commissions, or bonuses, which modify the amount of income they receive each pay period.

The general idea that composition of income (or pay-plans) may affect well-being is supported by the findings of the following studies.

Heneman, Greenberger, and Strasser (1988) studied the relationship between pay-for-performance and perception of pay satisfaction. They concluded that pay-for-performance perception is positively related to pay satisfaction and pay-raise satisfaction even after controlling for pay level, job tenure, job satisfaction, promotions, and performance ratings. Additionally, Farh et al. (1991) found that being able to choose the compensation plan (fixed-rate, bonus, or piece-rate) increases subjects' satisfaction with their work.

If pay plans affect facets of well-being such as pay satisfaction and work satisfaction, it is possible that it would affect alienation as well. To facilitate this argument, consider an individual who receives a commission as percent of sales. He or she can try to work harder and increase the amount he or she earns, while another individual who receives a fixed salary will receive the same amount of income regardless of effort, and might feel powerless to control the amount of income he or she earns. Thus, individuals who have high Control Over the Amount of Income (COAI) they earn will likely feel less powerless and thus feel less alienated (Korman, 1992), than individuals who have low or no control over the amount of income they earn. Therefore, I suggest the following hypothesis:

Hypothesis 4i.: The more control an individual has over the amount of income earned, the lower the individual's alienation.

COAI - interaction effect

Korman (1992) suggested that people use their level of income to assess their own career success and self-worth, and thus a higher income level strengthens their feelings of success and helps them avoid feelings of alienation. Based on these ideas I propose that the more people feel they can affect the level of their income, the more they will feel that their income level reflects their success and self-worth. Consequently, the connection between alienation level and income level for these individuals will be stronger. Therefore, I suggest the following hypothesis:

Hypothesis 4ii.: The more control an individual has over the amount of income earned, the stronger the negative relationship between income and alienation.

Hypothesis 5 - The Perceived Value of Money

In the discussions above, it was implied that people value having money, and thus its presence, in satisfying amounts, will affect their well-being. However, the importance one attributes to having money is not an obvious one. While some people may believe that money is an end in itself and that one works primarily for money, others may believe that working and earning money is merely a means by which one achieves other ends such as comfort, interest, and self-fulfillment.

The importance one attributes to having and earning money may vary from one individual to another. In Landi's (1989) opinion, people today attribute much too much importance to making money. He argues that "we have lost the sense of 'enough'. Snobbish as it was, there was something to the model of the 18th-century gentleman, who made his money in trade and then retired to more worthwhile pursuits. Today he has been superseded by a Donald-Trump-Style ethos of incessant striving [for money]"(p. 30). Landi cites New York psychotherapist Leonora Tint who says "people tend to get either neurotic or crazy or obsessive in each generation, in each culture period, in the way that the culture allows it. The people who have the greatest success in our society are the people who can get the most. ...The society promulgates that. This is what makes you a big man" (Landi, 1989, p. 30). Landi's article

argues the idea that in today's society most of us value having more money. Contrary to this opinion, Harris and Yankelovich (1989) believe that not only has money "lost its lure for those who lack it, but evidence is piling up that money is changing its meaning for even the moderately affluent. Public Agenda Foundation studies and others show that a majority of Americans have rejected love of money as the one-dimensional motivator for working" (p. 37). It could be said, therefore, that striving for money is a personal attitude. While some value money immensely, others tend to view it only as means to an end.

One reason for valuing money is its financial capabilities. Korman (1992) proposed that the actual power that money provides to achieve fulfillment enables individuals to avoid feelings of alienation. Secondly, he suggested that migration forces in the U.S. explain why people emphasize material satisfaction as a way to avoid feelings of personal and social alienation. These arguments are probably stronger for people who highly value the financial power of money, since they will also tend to embrace the power of money over feelings of personal and social alienation. Following this logic I suggest that individuals who highly value money's financial capabilities will be more likely to use the level of their income as a means for avoiding feelings of alienation than will individuals who value money to a lesser extent.

In addition to money having a financial value, several researchers agree that money also has a symbolic value. Money as a symbolic system is discussed by Crump (1981), who notes that "Money, as the subject matter of a ritual, always represents or signifies something other than itself. ...One is not interested in money, but in what money will buy" (Crump, 1981, p. 16). Empirically testing this line of thought, Wernimont and Fitzpatrick (1972) found that "money does appear to have a good deal of symbolic value, and it does mean different things to groups of people having differing biographies or backgrounds of training and experience" (p. 224). In Rubenstein's (1981) survey about money, 61% of the respondents believed that income was very or moderately revealing of success.

Accordingly, for one person, money could mean achievement, respect, and power, while for another, money could symbolically mean very little, and is merely an instrument that enables the purchase of material goods. Korman (1992) suggested that income can help prevent feelings of alienation since money can increase feelings of achievement, success, and self esteem, enhance respect from others, and improve personal feelings of power as well as actual power. However, it is not just the possibility that money actually allows these things that fashions the relationship between income and alienation, but also the possibility that people perceive it to be so. McClelland (1967) expresses this idea

by saying that people "seek financial reward, not for its own sake, but because it tells them how well they are doing" (p. 12). He also claims that for people with high need for achievement in the level of compensation is a measure of their accomplishment.

Therefore, being able to perceive money as having symbolic 'meaning, beyond its financial capabilities, is essential if one is to regard income as a guard against feelings of alienation since it is not the financial capabilities alone that help improve one's psychological feelings, but also the accompanying social and personal value that money might be perceived to have. As was stated by Gellerman (1968): "Whatever symbolism money has for the individual and whatever presumptions and illusions he has about how added income would affect the way he lives, are as much a part of the increment for him as is the money itself" (p. 144). Considering money's financial and symbolic value in relation to alienation, as was discussed above, I suggest the following hypothesis:

Hypothesis 5: The more an individual values money, the stronger the negative relationship between income and alienation.

CHAPTER 4

METHOD

Respondents

A questionnaire was distributed among 350 full-time workers with 305 (87%) responses usable for data analysis. The mean age of the respondents was 37 years (s.d. = 9.5), 54% were female, 54% were married, 51% had at least one child, and 68% had at least a college degree.

Population and Sampling

Due to the many possible social, economic, psychological, and political determinants of alienation and income's possible relationship to them, and in recognition that the present model's variables cannot possibly capture all these indirect effects, it was necessary to attempt to control for such possible biases to some extent through sampling. Thus the sample was acquired from a population residing in a single geographical area, the District of Columbia and vicinity.

Since the topic of alienation is a relatively sensitive one, one of the serious potential biases is a low rate of response. Individuals may

differ in their tendency to respond to a personal questionnaire, depending on their level of alienation. Therefore, an individualistic approach to sampling (i.e., 'snowball' convenience sampling) was used in order to try and increase the rate of response, and attempt to decrease this potential bias.

Another potential bias can result from recruiting subjects from only one organization. First, the organizational culture might interfere with the results by producing an environment with more or less alienation than average. Second, in a given organization rank and income will be highly correlated, so that variance within rank will be limited. To decrease the chance of this bias, subjects were personally recruited from a variety of workplaces. Although this sample is not representative per se of a specifically known population, it is not a priori biased in any way relevant to the theory. However, the demographics of the sample are analyzed in chapter 7 in order to determine the extent to which the results may be generalizable.

Procedure

Potential subjects (full-time workers) known to the author were approached in person or by telephone and asked whether they would be

willing to participate in an academic survey done by the author as part of a Ph.D dissertation by answering a short questionnaire about work and money. They were assured that their responses would be anonymous, and upon agreement to participate, were given the questionnaire and a pre-addressed & stamped envelops. Additionally, these people were asked whether they knew other full-time workers who might agree to participate, and subsequently those potential subjects were also approached in the same manner as described above.

Instrumentation

The questionnaire (see appendix A) was four pages long and included six sections (in variable order): the Personal and Social Alienation section, the Value of Money section, the Pay Satisfaction section, the Change in Income section, the Control Over Amount of Income section, and the Demographic section. These sections and the scales included in them are discussed below. With regard to all scales below, the desired range for reliability coefficients is 0.80-0.90, although coefficients in the range of 0.60-0.70 are also acceptable (Anastasi, 1976). When evaluating construct validity it is desirable to use factor analysis and/or correlations with other similar tests. These correlations should be moderately high

but not too high in order to demonstrate the added advantage of the scale and to ensure that the scale is not a duplication of already existing scales (Anastasi, 1976).

Personal and Social Alienation section (dependent variables)

The PA and SA scales[1] developed by Korman (1992), were used in this study to measure personal and social alienation.

Construct validity and reliability

Korman (1992) conducted construct validity procedures using factor analysis and concluded that the constructs of personal and social alienation are consistent with that analysis. Also, external relationships of scales with measures relevant to alienation as a construct showed appropriate validity such that the scales were positively correlated with relevant measures and mostly negatively correlated with opposite constructs. Internal consistency analyses showed the scales to be internally homogeneous and different from each other. Korman (1992) reported an alpha reliability coefficient of 0.81 for the PA scale and 0.74 for the SA scale. Using Anastasi's (1976) criteria above, the reliability coefficient for the PA scale is good while the one for the SA scale is only

[1] Appendix B shows all the scales used in the questionnaire in their original form (before they were transformed into the questionnaire style).

acceptable. Construct validity procedures appropriately include both factor analysis and correlations with similar measures.

In the current study the internal consistency Cronbach's alpha coefficient was 0.88 for the PA scale and 0.79 for the SA scale.

Pay Satisfaction section (independent variable)

The "Pay Satisfaction Scale" was used to measure the subjects' level of pay satisfaction. This scale is part of the Michigan Organizational Assessment Questionnaire (MOAQ)(Cammann et al., 1979 and Seashore et al., 1982). It has 3 items and the scale score is the average of these 3 items. The original manual reports an internal consistency Cronbach's alpha of 0.89. Validity information reported by the authors was a 0.38 correlation with overall job satisfaction, a correlation of 0.38 with intrinsic rewards satisfaction, and a 0.72 correlation with extrinsic rewards satisfaction. In addition, a -0.35 correlation was reported between tendency for turnover and the pay satisfaction scale. The reliability coefficient reported for this scale is very good and validity procedures adequately show moderate to high correlation with similar scales.

In the current study the average interitem correlation of the pay satisfaction scale was 0.90 and the Cronbach's alpha coefficient was 0.96.

Change in income section (independent and interaction variables)

The change in income was measured by asking respondents to report the amount and the date of the last change in their income. Each questionnaire was marked with the approximate date it was answered (according to the date it was received by mail), and the time since the last change in income was computed (in months) by the difference between the date of change reported and the date of questionnaire completion.

Respondents were also asked to report the type of change (increase or decrease) and the reason for the change. The purpose of asking about the latter was to control for a possible effect of the reason for change on the relationship between the percent change in income and alienation. For example, an expected change that all employees receive (e.g., a general wage increase) might be considered by the respondent a part of his or her adaptation level, and not a departure from it (even before the amount is actually added to his or her income).

Control over amount of income (COAI) section (interaction variable)

The control over the amount of income was measured through one's income composition. Fifteen possible components of income were listed and the measure of control was composed of two dummy variables, COAI1 and COAI2, representing two types of control over amount of income. The dummy variable COAI1 was scored '1' for respondents whose income composition included at least one of the following components: commission, tips or personal piece rate. Accordingly, this variable was scored '0' for respondents who reported none of these three components as part of their income composition. This variable was labeled 'Immediate control over one's income' and was considered to indicate high control over amount of income. Similarly, the dummy variable COAI2 was scored '1' for respondents whose income composition included either one of the following components: bonus paid according to individual performance, or overtime (when chosen). Accordingly, this variable was scored '0' for respondents who reported neither one of these two components as part of their income composition. This variable was labeled 'piecemeal control over one's income', and was also considered to indicate high control over amount of income. The correlation between these two dummy variables was 0.13.

Components 1, 2, 3 and 9 were considered to indicate no control over amount of income and components 7, 10, and 12 through 15 were considered to indicate low control over amount of income. Respondents whose income was composed of components from these two groups only represented the base group for the dummy variables.

Value of money section (interaction variable)

The "Money Ethic Scale" (MES) developed by Tang (1992) includes six sub-scales, four of which were considered to be relevant to measuring the financial and symbolic value of money. Each sub-scale contains four items except for the first, which has nine (see appendix B). Tang performed a factor analysis that showed item loadings from 0.45-0.68 for the 'Money is good' sub-scale; item loading from 0.52-0.74 for the Achievement sub-scale; item loading from 0.52-0.71 for the Respect sub-scale; and item loading from 0.49-0.63 for the Freedom sub-scale. In addition, Tang reported the internal consistency Cronbach's alpha to be 0.81, 0.70, 0.68, and 0.71 (respectively for the four sub-scales); and a test-retest reliability (four weeks apart) of 0.67, 0.61, 0.63 and 0.83 (respectively for the four sub-scales). The internal consistency coefficient for the first sub-scale is good and those of the other three sub-scales are acceptable. Test-retest reliability coefficients for the first three sub-scales are acceptable to marginally acceptable, while the

coefficient for the last sub-scale is good. The validity procedure used by Tang adequately includes factor analysis, although it was preferable if correlations with similar measures were included as well.

In the current study the internal consistency Cronbach's alpha coefficients were 0.88, 0.83, 0.80, and 0.74 respectively for the four sub-scales.

Demographic section (independent and control variables)

The demographic section included 13 questions, which were used for different purposes in this study.

Responses to questions number 1 through 6 regarding age, gender, marital status, number of children, education, and occupation, were used for two purposes: (i) to compose the personal and work profiles of the respondents and (ii) to account for effects on alienation or well-being already known in the literature that might interact with this study's independent variables. For example, gender was found to be significantly related to well-being in previous studies (Adelmann, 1987; George & Brief, 1990; and Kessler, 1982). If gender is significantly related to one or more of the model's independent variables, the correlation between these variables and alienation could reflect the intervening effect of gender. In order to estimate the unique effect of those variables on alienation, the effect of gender on alienation would

have to be accounted for first, using the appropriate statistical procedures, so that differences in gender that are related to alienation and the independent variable would not affect the reported correlation between the model's independent variables and alienation.

Similar to this argument regarding gender, previous research indicates that education (Adelmann, 1987; Campbell, 1979; ; Kessler, 1982; Otto & Featherman, 1975; and Vredenburgh and Sheridan, 1979); age (Adelmann, 1987; and Campbell, 1979); occupation (Campbell, 1979; and Kessler, 1982; and Vredenburgh & Sheridan, 1979); and marital status and the number of children (Campbell, 1979; and Vredenburgh & Sheridan, 1979) are also related to alienation or other measures of well-being. Since these personal characteristics might be related to this study's independent variables, their effect on alienation was accounted for as well, in order to estimate the unique effect of the model's main variables.

The response to question number 13 (regarding non-job related income or 'other income') was also used for control purposes as in the case of gender above. The theoretical rationale for including Other Income is similar to that of including Personal Income. However, it was assumed that the responses to this question (#13) would not measure 'other income' accurately enough to assess its relationship to alienation and therefore it was not included as a separate hypothesis.

Nevertheless, this variable was included in the regression to control for its possible effect on the relationship between the model's independent variables and alienation.

Responses to questions number 7, 9, and 14 (regarding government employment, job security, and the length of time respondents had lived in the U.S.) were used for estimating the sample location effect[1] and security effect on the attitude variables of the model (i.e., alienation, pay satisfaction, value of money).

Responses to question number 8 (regarding time on the job - tenure) and question number 10 ("Is this the first full time job you had?") were used to determine whether the respondent's current income was effectively a change from zero income at the time they began to be employed. This information was needed for the analysis related to hypotheses 3i and 3ii. Responses to question number 8 were also used to compose the respondents' work profile.

Responses to questions number 11 and 12, regarding personal income and spousal income, were used as independent variables in the model's analysis and for composing the respondents' personal profile.

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[1] The D.C. area has a higher proportion of government employees and foreign-born population than the remainder of the U.S.

Questionnaire Pre-Testing

The pre-test of the questionnaire involved 30 respondents. Eleven respondents were individually interviewed, and the other 19 were interviewed in a group format. Respondents were asked to comment on the clarity and comprehensiveness of the questionnaire in general, and the questions in particular.

All comments referred either to the grammatical style of the questions or to the directions preceding the questions. Overall, respondents seemed to understand how to answer the questions, and they seemed to understand the aim of the questions as they were intended. Utilizing the comments from the pre-test interviews, the questionnaire was modified to clarify the directions, and some grammatical changes were made.

Data Analysis

Dependent variables: - Personal Alienation (PA) and Social Alienation (SA). Analysis was done separately for each type of alienation.

Demographic and Control variables

Set[1] A (variables that were added before the main variables or sets):

The demographic and control variables were entered first into the regression equation since they were not the main focus of the study, and were included in the regression to control for their possible effect on the relationship between other independent variables and the dependent variables.

sub-set D - Demographics: Gender, Age, Education, Occupation, Marital Status, Number of Children, Tenure (occupation and marital status are entered as dummy variables[2]).

sub-set C - Controls: Other Income, Reason for Change (reason for change is entered as a dummy variable).

Independent variables

Set B (variables or sets that are the main interest of the study):

The variables in set B are presented below in the order in which they were entered into the regression. This order was based on importance, i.e., expected contribution to alienation in terms of explained variance, and on possible intercorrelations among these variables. Specifically, personal income is the main variable in the model, and was

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[1] A set is a group of independent variables entered into the regression equation as a block

[2] See appendix C for dummy variables' transformations.

expected to explain a large percent of the variance in alienation compared to other variables in the model, based on previous research and this study's theoretical logic. It was therefore entered first, followed by Pay Satisfaction, which has strong theoretical support and was therefore also expected to explain a large percent of the variance in alienation. Theoretically, the effect of spousal income was expected to be less than that of personal income and pay satisfaction since it does not pertain to personal earnings or personal experience but rather to someone else's experience or earnings. It was therefore entered third. The next variable entered after these three variables that are most closely related to income per se, was Percent Change, followed by Control Over Amount of Income. The inside order of these two variables was based on the author's discretion regarding expected explained variance. Finally, the interaction variables were entered after the main effect variables as suggested by Cohen and Cohen (1983).

Independent Variables in order of inclusion in the regression equation:

1) Personal Income Level (INCOME)[1]

2) Pay Satisfaction (PAY-SAT)

3) Spousal Income Level (INC-SPO)

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[1] See appendix C for computations of the following variables: INCOME, INC-SPO, %CHANGE, TIMEx, MONEYx.

4) Percent Change in Income (%CHANGE)

5) Dummy variables for Control Over Amount of Income (set COAI)

6) Interaction variables of COAI with Income (set COAIx)

7) Interaction of Value of Money with Income (MONEYx)

8) Interaction of Time Since Change in Income with Percent Change (TIMEx).

CHAPTER 5

RESULTS

Descriptive Statistics[1]

Before addressing the research questions, it is appropriate to examine the characteristics of those who completed the questionnaire.

Personal status

A wide age range (21-66) is represented in the sample, with a mean of 37 years (s.d. = 9.5) (Table 1), and a median of 35 years.

The average respondent has a college degree, and 68% of the respondents hold a college or higher degree. Twenty-two percent (22%) of the respondents hold a high-school diploma, and the remaining 11% do not (Table 2).

About half of the respondents are married (54%), 33% are single, and the remaining 13% are either divorced, separated, or widowed. Twenty-one (21%) of the respondents have one child, and 30% have two or more children (Tables 3 and 4).

The average job-related income level was about $45,500 (s.d. = 31,098). The median income was $35,000, which was also the most

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[1] Means and standard deviations of continuous variables are reported in Table 1.
Frequencies of dichotomous variables are reported in Tables 2-6. Correlations are reported in Table 7.

Table 1: Means and Standard Deviations of Continuous Variables

VARIABLE	MEAN	S.D.
AGE	37.00	9.50
TENURE	6.30	6.30
INCOME	45,000	31,098
PAY SATISFACTION	3.80	1.73
INC-SPOUSE	19,115	28,586
INC-OTHER	2,574	5,746
TIME	9.38	12.1
MONEY	4.4	0.98
PERSONAL ALIENATION	2.67	0.90
SOCIAL ALIENATION	2.94	0.62

N = 305

Table 2: Education Level Frequencies

CATEGORY	FREQUENCY	PERCENT
DID NOT COMPLETE HIGH SCHOOL	33	10.8
HIGH-SCHOOL DIPLOMA	29	9.5
SOME COLLEGE	37	12.1
COLLEGE DEGREE	77	25.2
SOME GRADUATE	32	10.5
GRADUATE DEGREE	97	31.8
TOTAL	305	100

Table 3: Marital Status Frequencies

CATEGORY	FREQUENCY	PERCENT
SINGLE	100	32.8
MARRIED	164	53.8
DIVORCED	31	10.2
WIDOWED	4	1.3
SEPARATED	6	2.0
TOTAL	305	100

Table 4: Number of Children Frequencies

CATEGORY	FREQUENCY	PERCENT
NONE	151	49.5
ONE CHILD	63	20.7
TWO CHILDREN	57	18.7
THREE CHILDREN	25	8.2
FOUR CHILDREN	8	2.6
FIVE CHILDREN	1	0.3
TOTAL	305	100

Table 5: Occupation Frequencies

CATEGORY	FREQUENCY	PERCENT
MANAGERIAL	28	9.2
PROFESSIONAL	148	48.5
ADMINISTRATIVE	59	19.3
SERVICE	40	13.1
BLUE COLLAR	30	9.8
TOTAL	305	100

Table 6: Gender Frequencies

CATEGORY	FREQUENCY	PERCENT
FEMALE	164	53.8
MALE	141	46.2
TOTAL	305	100

Table 7: Correlations

	AGE	GENDER	MARI14	MARI35	CHILD	EDUC.
AGE	.					
GENDER	.04	.				
MARI14[1]	-.30**	-.16**	.			
MARI35[2]	.17*	-.12*	-.27**	.		
CHILD	.61**	.08	-.44**	.11*	.	
EDUCATION	-.30**	.04	-.04	-.17**	-.28**	.
OCCU34[3]	.07	-.19**	-.01	.05	.04	-.31**
OCCU5[4]	.28**	.16**	.08	.17	.20**	-.54**
TENURE	.60**	.08	-.19**	.15**	.40**	-.32**
INCOME	.11*	.22**	-.23**	-.02	.04	.42**
INC-SPO	.04	-.10	-.46**	-.22**	.10	.23**
INC OTHER	.20**	-.04	-.01	-.07	.17**	.08
PAY-SAT	.03	-.02	-.18**	-.04	-.01	.29**
TIME	.14**	-.07	-.05	.23**	.16**	-.09
MONEY	.20**	.12*	-.06	-.04	.09	-.22**
%CHANGE	-.19**	.07	.16**	-.09	-.20**	.08
COAI1	.04	.10	-.07	.13**	.13*	-.07
COAI2	.04	-.21**	.00	.06	.00	.05
PERSONAL ALIENA.	.06	.01	.05	-.05	-.01	-.43**
SOCIAL ALIENA.	.01	-.06	-.02	-.05	-.01	-.19**

N = 305

1 = Marital status - single/widowed
2 = Marital status - divorced/separated
3 = Administrative / Service
4 = Blue-collar

* $p < .05$ ** $p < .01$ Two-tailed

...table continues on next page

table 7 continued...

	OCCU34	OCCU5	TENURE	INCOME	INC-SPO	INC-OTH
OCCU34[1]	.					
OCCU5[2]	-.23**	.				
TENURE	-.02	.37**	.			
INCOME	-.24**	-.26**	.10	.		
INC-SPO	-.15**	-.14**	.03	.18**	.	
INC-OTH	.02	-.08	.06	.15**	.05	.
PAY SAT	-.19**	-.20**	.01	.52**	.21**	.09
TIME	.05	.01	.17**	-.02	.05	.06
MONEY	.17**	.12**	.24**	-.02	-.01	.14**
%CHANGE	-.10	.02	-.21**	-.06	-.06	-.07
COAI1	.09	.04	.03	.13*	.01	-.01
COAI2	.19**	-.15**	-.01	.01	-.01	.03
PERSONAL ALIENA.	.15**	.30**	.10	-.32**	-.10	-.21**
SOCIAL ALIENA.	.05	.12*	.01	-.26**	-.02	-.14**

N = 305

1 = Administrative / Service
2 = Blue-collar
* p < .05 ** p < .01 Two-tailed

...table continues on next page

table 7 concluded...

	PAY-SAT	TIME	MONEY	%CHA.	COAI1	COAI2	PER. ALI.
PAY-SAT	.						
TIME	-.08	.					
MONEY	-.13*	.10	.				
%CHANGE	-.05	.11*	-.07	.			
COAI1	.00	.06	.07	.06	.		
COAI2	.05	-.03	-.10	-.05	.13*	.	
PERSONAL ALIENA.	-.37**	.05	.21**	.01	-.24**	-.15**	.
SOCIAL ALIENA.	-.24**	.12*	.11*	.04	-.34**	-.15**	.64**

N = 305

* $p < .05$ ** $p < .01$ Two-tailed

frequently reported job-income level (n = 62, mode). The average income from sources other than a job was $2,574 (s.d. = 5,746), with half of the respondents earning $500 or less (median), and the most frequently reported amount of non-job earnings was zero (n = 106, mode). Seventy-six percent (76%) of the respondents supply the primary source of earnings in their household (i.e., they either earn more than their spouse or they are not married), 16% of the respondents are secondary suppliers of income in their household (i.e., their spouse earns more then they do), and the remaining 8% of the respondents have about equal earnings as their spouse. Women compose the higher percentage of secondary (70%) and equal (68%) suppliers of household income, while primary suppliers of household income are divided about equally between men (52%) and women. Part of the theoretical basis for the argument that personal income and spousal income are related to alienation is related to the meaning of earning money and the image of being a supplier of income and its importance. Therefore, the possibility that there would be a difference between primary and secondary earners of household income with regard to feelings of alienation, or with regard to the relationship between income and alienation was considered. However, the results of a regression analysis do not indicate a significant difference between primary and secondary suppliers of income with regard to feelings of Personal Alienation (t =

-0.991, p = .323) or Social Alienation (t = 0.508, p = .612). Also, being a primary or secondary supplier of income does not interact with the relationship between income and either personal or social alienation (t(PA) = -1.38, p = .168 and t(SA) = 0.10, p = .920).

Work status

Ninety percent (90%) of the respondents were non-government workers, about half of the respondents (49%) were professionals, 19% worked in administrative jobs, 13% in service jobs, 10% in blue collar jobs, and the remaining 9% in managerial jobs (Table 5). For most respondents (80%), the current job was not their first full-time job, and the average job tenure in the sample was 6 years and 3 months (s.d. = 6.3). Half of the respondents have been holding their current job for about 4 years (median). Seventy-one (71%) percent of the respondents reported they felt secure or very secure in their job, 14% reported they felt insecure or very insecure in their job, and the remaining 15% reported that they could not decide regarding this issue.

Covariates Check

Version

Four versions of the questionnaire were used to check whether the order of the sections in the questionnaire was a factor in the way subjects responded (Kidder and Judd, 1986). A one-way ANOVA indicated that no significant difference was found between the four versions with regard to alienation level, pay satisfaction level, and value of money level (Table 8 below).

Location

Since the sample was collected in the District of Columbia and vicinity, two location related variables were tested for their possible effect on the results: the proportion of time the respondent has lived in the U.S.[1] (since Washington, as a diplomatic center, has a sizable foreign population), and government employment. Most of the respondents (75%) were born in the U.S. and an additional 7% had spent more than half of their lives in the U.S.. No significant relationship was found between the proportion of a respondent's lifetime in the U.S. and either feelings of personal alienation, income, pay satisfaction, or attitudes

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[1] The proportion of time lived in the U.S. was computed by dividing the years a respondent lived in the U.S. by the age of the respondent. For an American-born and raised respondent this proportion equals 1.

Table 8: Results of Oneway ANOVA for Check of Version as a Covariate

VARIABLES	SOURCE	D.F.	SUM OF SQUARES	MEAN SQUARES	F RATIO	F PROB.
PA BY VERSION	BETWEEN GROUPS	3	1.4	.466	.572	.63
	WITHIN GROUPS	302	246	.815		
	TOTAL	305	247.4			
SA BY VERSION	BETWEEN GROUPS	3	.85	.283	.761	52
	WITHIN GROUPS	302	112.5	.372		
	TOTAL	305	113.35			
SAT BY VERSION	BETWEEN GROUPS	3	11	3.7	1.24	.30
	WITHIN GROUPS	302	898	3.0		
	TOTAL	305	909			
MONEY BY VERSION	BETWEEN GROUPS	3	3.6	1.2	1.2	.31
	WITHIN GROUPS	302	300.5	1.0		
	TOTAL	305	304.1			

toward money ($r = 0.04_{Sm}$[1], 0.00_{Sm}, -0.03_{Sm}, 0.06_{Sm} respectively). However, Social Alienation was found to be negatively and significantly related to the proportion of the respondent's lifetime spent in the U.S. ($r = -0.13_{Sm}$*[2]), suggesting that the higher the proportion of lifetime a respondent spent in the U.S., the lower is his or her level of social alienation. It is intuitively plausible for foreigners to have a higher level of social alienation because they might be less affiliated with the country they reside in and could possibly have a less supportive social structure and a weaker cultural compatibility than respondents who have lived a higher proportion of their life or all their life in the U.S..

Concerning government employment, most of the respondents (90%) were non-government workers and no significant relationship was found between government employment and feelings of personal and social alienation or attitudes toward money ($r = -0.06_{Sm}$, 0.01_{Sm}, -0.10_{Sm} respectively). However, government employment was negatively and significantly related to Pay Satisfaction ($r = -0.14_{Sm}$**) implying that government workers had significantly lower satisfaction with their income as compared to non-government workers. Since no significant difference between the average income of government workers and non-government workers was found (t =

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[1] sm = small effect size, as defined by Cohen (1988).

[2] * $p < .05$ ** $p < .01$ Two-tailed

-1.57, p = .117), this result cannot be attributed to a lower level of income for government employees.

Job security

The effect of job security on personal and social alienation was studied using multiple regression analysis and no significant effect was found for either PA or SA (t = 0.76, p = .45 and t = -0.05, p = .96 respectively).

Demographics

The data indicate that Gender, Age, and Tenure were not significantly related to either Personal or Social Alienation, while Education Level was found to be negatively and significantly related to both types of alienation (t = -5.2** and t = -2.5* respectively). Also, personal alienation was found to be negatively and significantly related to number of children (t = -2.5*). Regarding Occupation, the results of a dummy variables regression analysis show that the level of personal alienation is significantly lower (t = 2.3*) among people who work in managerial or professional jobs as compared to people who work in blue collar jobs. This effect is beyond the effect of education on these groups' alienation. With regard to Marital Status, the results of the dummy variables regression analysis show that the level of personal alienation is

significantly lower ($t = -2.4^*$) among divorced or separated individuals compared to married individuals.

In summary, the overall Demographic set yielded a R^2 of 0.23 ($F = 9.8^{**}, df = 9$, $f^2 = 0.30_{Lg}$[1]) for Personal Alienation, and a R^2 of 0.06 ($F = 2.08^*, df = 9$, $f^2 = 0.064_{Sm}$) for Social Alienation. The data indicate that the higher one's education level, the lower his or her alienation level, and that the more children a person has, the lower his or her personal alienation. Finally, people differ in their feelings of personal alienation, depending on their occupation[2] and their marital status. The demographic set explains a significant percent of the variance in alienation. Therefore, its implication for specific hypotheses of the model will be discussed in detail in the model testing section.

Control variables

The data indicate that 'other income' is negatively and significantly related to both personal and social alienation ($t = -3.0^{**}$ and -1.96^* respectively). This means that the higher an individual's income, from sources other than a job, the lower his or her personal and social alienation. 'Reason for Change' was found to be unrelated to either personal or social alienation.

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[1] Lg = large effect size, as defined by Cohen (1988).

[2] Other things being equal.

Overall the control set yielded an incremental R^2 of 0.028 ($f^2 = 0.038_{Sm}$) for PA and 0.025 ($f^2 = 0.027_{Sm}$) for SA. Although the model does not specify a hypothesis for Other Income, since it turned out to be significantly related to alienation, and since Reason for Change is not, additional analysis was done in which Other Income was entered into a regression separately from reason for change to estimate its unique effect on alienation. The results indicate that Other Income explains 2.6% of the variance in PA and 1.5% of the variance in SA while Reason for Change explains 0.2% of the variance in PA and 1% of the variance in SA. The effect of Other Income on the results of the model is evaluated below in the discussion of hypothesis 1i.

Model Testing

Overall model test[1]

The overall model was supported by the results of the data analysis. The cumulative R^2 for the Personal Alienation (PA) model was 0.403 ($F = 8.64^{**}$, $df = 22$, $f^2 = 0.67_{Lg}$), and the cumulative R^2 for the Social Alienation (SA) model was 0.268 ($F = 4.69^{**}$, $df = 22$, $f^2 = 0.37_{Lg}$).

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[1] Regression results in Tables 9 and 10 below.

Table 9: Results of Hierarchical Multiple Regression analysis
Dependent Variable - Personal Alienation

Sets	IV's Added	Cum. R^2	Increment	t/F	df
A set D	Gender, Age, Edu, Occu, Marital, Child, Tenure.	.230	.230	F = 9.77**	9
set C	INC-other, Reason	.258	.028	F = 5.53**	12
B	INCOME	.269	.011	t = -2.05*	13
	PAY SATISFACTION	.316	.047	t = -4.48**	14
	INC-SPOUSE	.317	.000	t = -.73	15
	% CHANGE	.317	.000	t = -.07	16
set COAI	COAI1 & COAI2	.383	.066	F = 15.3**	18
set COAIx	COAI1x & COAI2x	.391	.008	F = 1.87	20
	MONEYx	.394	.003	t = -1.3	21
	TIMEx	.403	.009	t = 1.98*	22

OVERALL MODEL : R^2 = .403 F = 8.64 df = 22**

N = 305
* p < .05 ** p < .01 Two tailed

Table 10: Results of Hierarchical Multiple Regression analysis
Dependent Variable - Social Alienation

Sets	IV's Added	Cum. R^2	Increment	t/F	df
A set D	Gender, Age, Edu, Occu, Marital, Child, Tenure.	.060	.060	F = 2.08*	9
set C	INC-other, Reason	.085	.025	F = 4.00*	12
B	INCOME	.113	.028	t = -3.1**	13
	PAY SATISFACTION	.130	.017	t = -2.37**	14
	INC-SPOUSE	.131	.001	t = -.716	15
	%CHANGE	.132	.001	t = -.484	16
set COAI	COAI1 & COAI2	.241	.109	F = 20.5**	18
set COAIx	COAI1x & COAI2x	.247	.006	F = 1.13	20
	MONEYx	.258	.011	t = -2.00*	21
	TIMEx	.268	.010	t = 1.97*	22

OVERALL MODEL : R^2 = .268 F = 4.69** df = 22

N = 305
* p < .05 ** p < .01 Two-tailed

These results imply that the combined effect of the variables included in the model explains about 40.3% of the variance[1] in respondents' personal alienation and 26.8% of the variance in respondents' social alienation. The unique contributions of set B to the explained variance of PA and SA (the incremental R^2) are 0.145 ($F = 6.85^{**}$, $df = 10$, $f^2 = 0.24_{Lg}$) and 0.183 ($F = 7.05^{**}$, $df = 10$, $f^2 = 0.25_{Lg}$), respectively. It can therefore be said that set B explains 14.5% of the variance in respondents' personal alienation and 18.3% of the variance in respondents' social alienation, above and beyond the effect of the demographic and control variables, and that set B has a large and about equal size of effect on PA and SA.

Hypotheses tests

Hypothesis 1 Hypothesis 1i states that personal and social alienation are negatively related to personal income. The variable 'Personal Income' was entered first in set B, after the demographic and control variables of set A. The incremental R^2 Personal Income yielded was 0.011 ($f^2 = 0.015_{Sm}$) for PA and 0.028 ($f^2 = 0.03_{Sm}$) for SA. This means that personal income level uniquely explains 1.1% of the variance in personal alienation and 2.8% of the variance in social alienation

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[1] Percent of explained variance = eta^2.

among the respondents in this study, above and beyond the effects of various demographic and control variables.

Statistical significance test The significance test supports this hypothesis and shows that personal and social alienation are significantly and negatively related to personal income ($t = -2.05^{*}$ and -3.04^{**} respectively).

Zero-order correlations As indicated in Table 7 above, Personal Income is significantly correlated with several variables. Three of these variables (Occupation, Education, and Other Income) are also significantly correlated with Alienation and were entered into the regression equation before Personal Income and therefore deserve further attention. Education, Occupation, and Other Income were entered in the regression equation before Personal Income so that the unique contribution of Personal Income can be estimated.[1] This order of entry represents a prudent approach to research such that the correlating variable (e.g., Education /X_2) that is not part of the study's model is assigned the proportion of Y variance[2] it shares with a model-variable

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[1] The unique contribution of an independent variable X_1 in terms of proportion of variance in the dependent variable Y (i.e. the R^2 increment) is equal to the semi-partial squared ($sr^2_{Y1.2}$), which equals to the proportion of Y variance explained by X_1 from which X_2 (a variable that is correlated with X_1 and Y) has been partialled (Cohen and Cohen, 1983).

[2] Y = The dependent variable, which in this case is Personal or Social Alienation.

(e.g., Personal Income /X_1). Although for the sake of testing the model the order of the variables remains as set out above, it is worthwhile to evaluate the contribution of personal income when these variables are not partialled from it (i.e., when Personal Income is entered into the regression before Education, Occupation, and Other Income).[1] The results of this analysis indicate that personal income explains 10% of the variance in PA (compared to 1.1% in the original order of entry) and 6.3% of the variance in SA (compared to 2.8% in the original order of entry). As expected, the contribution of personal income is much higher with this order of variables, a change that has a substantial importance in terms of effect size. For PA as the dependent variable $f^2 = 0.12_{Med}$[2] in the new order of entry as compared with $f^2 = 0.015_{Sm}$ in the original order of entry. For SA there is a smaller difference with $f^2 = 0.07_{Sm}$ in the new order of entry as compared with $f^2 = 0.03_{Sm}$ in the original order of entry. The difference in effect sizes has a theoretical significance as well as consequences for the designing of future research. However, in terms of traditional significance testing, the conclusion is not affected since the hypothesis regarding personal income is supported with either order of variables.

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[1] By not partialling control variables that intercorrelate with a main variable, one can evaluate the effect of zero-order correlations between these variables on the model's results.

[2] Med = medium effect size, as defined by Cohen (1988).

Hypothesis 1ii states that alienation is negatively related to spouse income. The variable 'Spousal Income' was entered third in set B. The analysis shows no unique contribution of this variable in explaining the variance of either PA or SA, beyond the effect of the demographics, controls, personal income, and pay satisfaction. These results are also true when tested for married respondents only.

Statistical significance test Although the coefficient of this variable is negative as hypothesized, it is not significantly related to either personal or social alienation (t = -0.728, and -0.716 respectively), and therefore this hypothesis is not supported empirically.

Zero-order correlations There is no significant zero-order correlation between Spousal Income and either PA or SA. Therefore, although Spousal Income is significantly correlated with Personal Income, Pay Satisfaction, and other demographic variables, they do not affect its significance in the regression model by preceding it in the analysis.

Hypothesis 2 Hypothesis 2 states that alienation is negatively related to pay satisfaction. The variable 'Pay Satisfaction' was entered second in set B. It yielded an incremental R^2 of 0.047 ($f^2 = 0.07_{Sm}$) for PA and 0.017 ($f^2 = 0.02_{Sm}$) for SA. Accordingly, pay satisfaction uniquely explains 4.7% of the variance in personal alienation and 1.7%

of the variance in social alienation, above and beyond the effect of the various demographic and control variables and the effect of Personal Income.

Statistical significance test The results of the significance test support this hypothesis and show that personal and social alienation are significantly and negatively related to pay satisfaction ($t = -4.48^{**}$ and -2.37^{*} respectively).

Zero-order correlations The variables that are significantly correlated with both Alienation and Pay Satisfaction and precede Pay Satisfaction in the regression are Personal Income, Education, and Occupation. Personal Income and Pay Satisfaction are highly correlated ($r = 0.52$) and therefore share a large proportion of Y variance. Since Pay Satisfaction is part of the study's model, it is by design that this shared proportion of variance is assigned to Personal Income.[1] With regard to Education and Occupation, additional analysis with Pay Satisfaction preceding these two variables indicates that Pay Satisfaction explains 5.7% of the variance in PA (compared to 4.7% in the original order of entry) and 4.8% of the variance in SA (compared to 1.7% in the original order of entry). With regard to the variance of PA, the differences between the two orders of entry are small (the effect sizes are equal

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[1] Refer back to Chapter 4, sub-section 'Analysis' for the explanation regarding the order of variables in the hierarchical regression model.

with the two orders of entry, $f^2 = 0.07_{Sm}$). With regard to the variance of social alienation, there is a larger difference between the orders of entry ($f^2 = 0.05_{Sm}$ with the new order of entry as compared to $f^2 = 0.02_{Sm}$ with the original order of entry), although the effect size remains small.

Hypothesis 3 Hypothesis 3i states that alienation is negatively related to percent change in income. The variable 'Percent Change in Income' was entered fourth in set B. It did not add to the overall cumulative R^2 of the model for either personal or social alienation. This means that the percent of change in respondents' income does not affect their alienation level.

Statistical significance test Although the results indicated that alienation is negatively related to percent change in income, this relationship was not statistically significant, providing no support for this hypothesis for either personal or social alienation ($t = -0.07$ and -0.484 respectively).

Zero-order correlations The zero-order correlation between Percent Change and both PA and SA is negligible. This variable's insignificant contribution to the model cannot be explained by multicollinearity, since

there are no variables in the regression equation that significantly correlate with both Alienation and Percent Change.

Hypothesis 3ii states that the closer in time a change in income is, the stronger will be the negative relationship between percent change in income and alienation. The interaction variable of percent change and time, 'TIMEx', was entered last in set B. It added 0.009 ($f^2 = 0.015_{Sm}$) to the cumulative R^2 of PA and 0.010 ($f^2 = 0.014_{Sm}$) to the cumulative R^2 of SA. Therefore, the effect of time on the relationship between percent change in income and alienation, uniquely explains 0.9% of the variance in respondents' personal alienation and 1% of the variance in respondents' social alienation, above and beyond the effect of the variables that preceded it in the regression.

Statistical significance test The data indicate support for this hypothesis and show that income change and alienation are more strongly related when less time has passed since the change in income. These results are valid for both personal and social alienation ($t = 1.98^*$ and 1.97^* respectively).

Hypothesis 4 Hypothesis 4i states that alienation is negatively related to control over amount of income. The control over amount of

income variable was represented in the analysis by two dummy variables COAI1 and COAI2 in sub-set COAI, entered fifth in set B. Sub-set COAI yielded an incremental R^2 of 0.066 ($f^2 = 0.11_{Med}$ for PA and 0.109 ($f^2 = 0.14_{Med}$) for SA. This means that control over amount of income uniquely explains 6.6% of the variance in respondents' personal alienation and 10.9% of the variance in respondents' social alienation, above and beyond the effect of the variables preceding it in the regression.

Statistical significance test The significance test supports this hypothesis, which means that in this study the more control an individual has over the amount of income earned, the lower is his/her personal and social alienation ($F = 15.3^{**}$ and 20.5^{**} respectively).

Zero-order correlations Occupation is the only variable that significantly correlates with both Alienation and COAI2 (there is no such variable for COAI1). Additional analysis with set COAI preceding Occupation indicates that set COAI explains 6.7% of the variance in PA (compared to 6.6% in the original order of entry) and 11% in SA (compared to 10.9% in the original order of entry).

Hypothesis 4ii states that control over amount of income interacts with income in its relationship to alienation so that the more control one has, the stronger is the relationship between his/her income and

alienation. The interaction sub-set COAIx (which included the interaction variables of COAI1 and COAI2 with income) was entered sixth in set B. It explained less than one percent of the variance in personal and social alienation.

Statistical significance test The data do not support this hypothesis for either personal or social alienation ($F = 1.87$ and 1.13 respectively), indicating that there is no effect of control over amount of income on the relationship between income and alienation in this sample.

Hypothesis 5 Hypothesis 5 states that value of money moderates the relationship of income and alienation so that the more one values money the stronger is the relationship between his/her income and alienation. The variable representing the interaction between money and income, 'MONEYx', was entered seventh in set B. It yielded a negligible incremental R^2 for PA and a 0.011 ($f^2 = 0.015_{Sm}$) increment for SA. Accordingly, it can be said that the interaction between income and money explains 1.1% of the variance in respondents' social alienation, above and beyond the effect of the variables entered before it into the regression equation.

Statistical significance test Although the relationship between the interaction (of value of money with income) and personal alienation is

negative, it is not significant (t = -1.3), and therefore the data provide no support for this hypothesis with regard to personal alienation. However, the hypothesis is supported when social alienation is concerned (t = -2.0*) so that the more an individual values money, the stronger is the negative relationship between his or her level of income and his or her feelings of social alienation.

Zero-order correlations The variables that have significant zero-order correlations with both Alienation and Money are Pay Satisfaction, Education, Occupation, and Other Income. As with the case of Personal Income and Pay Satisfaction, here also Pay Satisfaction precedes the interaction variable MONEYx by design of the model and therefore any shared variance between MONEYx and Pay Satisfaction is assigned to the latter (regardless, the effect of Pay Satisfaction on the contribution of MONEYx to the model is negligible).[1] With regard to Education, Occupation, and Other Income, the results of an additional analysis (when MONEYx precedes these three variables) indicate that MONEYx explains 0.9% of the variance in PA (compared to 0.3% in the original order of entry) and 1.4% of the variance in SA (compared to 1.1% in the original order of entry). Even with Education, Occupation, and Other Income out of the way, the contribution of MONEYx to PA variance

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[1] When MONEYx precedes Pay Satisfaction in the regression the R^2 increment equals .01 compared to .003 for PA, and equals .015 compared to .011 for SA.

remains insignificant. In terms of effect size, there are differences but they are small, and overall the effect sizes for both PA and SA for either order of entry are small (for PA $f^2 = 0.01_{Sm}$ in the new order and 0.005_{Sm} in the original order; for SA $f^2 = 0.02_{Sm}$ in the new order and 0.015_{Sm} in the original order).

Summary of findings

The data indicate that the overall size of effect of the model's variables is large, and collectively they explain a significant percent of the variance in respondents' personal and social alienation. The overall R^2 for PA is higher than for SA, but the difference is due to the variance explained by the demographic set. While for PA the demographic data explain 23% of the variance, for SA they explains only 6%. However, when considering the effect size of set B (which is the focus of this study's model), it is about equal for PA and SA ($f^2 = 0.24$ and 0.25 respectively).

With regard to main effects, Control Over Amount of Income, Pay Satisfaction, and Personal Income are the prominent variables in the model, and alone explain 12.4% (out of 40.3) of the variance in Personal Alienation and 15.4% (out of 26.8) of the variance in Social Alienation. The size of the effect of control over amount of income is medium

($f^2 = 0.11$ for PA and $f^2 = 0.14$ for SA). For the remaining variables, the effect sizes are small.

With regard to interaction effects, the interaction of Time with Percent Change was statistically significant for both types of alienation.

The interaction of Value of Money with Income was only significant for Social Alienation, implying that the more people value money, the stronger is the effect of their income on their feelings of social alienation.

Zero-order correlations were discussed for each of the model's variables, whenever a preceding non-model variable correlated with both alienation and the model variable under discussion. In some cases (e.g., Personal Income, Pay Satisfaction), changing the order of entry so that demographic and control variables were entered after the model variables increased the percent of variance explained by the model variables significantly. In other cases, the difference was less meaningful. In all cases, however, the conclusion regarding the support for the study's hypotheses did not change with either the original or altered order of variables in the regression.

In summary, the overall model is supported empirically, and the combined size of effect of the model variables on personal and social alienation is large.

CHAPTER 6

DISCUSSION

Several issues need to be emphasized. First, the results in this study indicate that Education is highly correlated with Alienation and with Income. This issue has been discussed in chapter 5, where Education's effect on the contribution of income to the model was evaluated. Although Education and Income are correlated, higher income would lead to a lower level of alienation beyond the effect of individual differences in education. Therefore, it can be concluded from this study that educated individuals are predicted to be less alienated and that if two individuals have an equal education level, the one with the higher income level is predicted to have a lower alienation level.

A second issue is the unsupported hypotheses of the model. The hypotheses regarding spousal income (#1ii), COAI-interaction (#3i), and percent change in income (#4i) have not been supported by the data for either personal and social alienation as the dependent variables, and hypothesis 5 regarding value of money was not supported for personal alienation only. Attempts to explain these variables' insignificance by means of multicollinearity with other independent variables that preceded them in the regression were not fruitful, as was shown in chapter 5. Therefore, two additional competing conclusions can be suggested

regarding these hypotheses. One is that there is an effect in the population but the present study lacked the statistical power to detect it. The competing conclusion is that there is either a negligible effect or no effect in the population regarding these hypotheses. Since the study was designed so that the power to detect an effect for these variables, even if it was fairly small (e.g., $f^2 = 0.025$), would be about 80, the latter conclusion is more likely to be valid than the former. Nevertheless, only additional attempts in future research can lead to a more confident conclusion regarding these variables' relation to alienation.

Another issue with regard to Percent Change in Income is the contrasting result with Personal Income. While Percent Change was found to be not significantly related to alienation, Personal Income was found to be significantly related to alienation. In light of the findings in chapter 5, this may imply that it is the differences in income relative to other respondents that affect alienation and not the differences in income relative to the amount previously received by the respondent.

Although the data in this study do not support a relationship between Percent Change in Income and Alienation, results do indicate a small but significant effect of time on this relationship. This implies that, given a relationship between Percent Change and Alienation, time would moderate this relationship, i.e., the closer in time a change is, the stronger the relationship between the change and Alienation. Additional

analysis also indicates that, for Social Alienation only, Time is significant also as a main effect ($t = 2.32^{*}$), implying that the more recent a change is, the lower is one's social alienation.

A third issue is the interesting result of the high proportion of variance explained by Other Income. It was shown in chapter 5 that Personal Income shares most of this explained variance, but since the zero-order correlation between the two variables is 0.15, even when Other Income is preceded by Personal Income in the regression, it still uniquely explains 2.1% ($t = -2.86^{**}$) of the variance in PA and 1% ($t = -1.7$, $p = .087$) in SA. This therefore suggests that all income, job-related or not, is negatively related to alienation, as long as it is personally earned by the individual (either fully or partly). If the income is earned solely by the individual's spouse (as in the case of spousal income), it does not affect his or her alienation level, according to the data in this study.

A fourth issue is the finding that the interaction of value of money with Income was significantly related to Social Alienation but not to Personal Alienation. A possible explanation could be that since most of the items in the Money Scale dealt with money as a component of image and social prestige, respondents' score on this scale might have been more closely related to social alienation feelings than to personal alienation feelings.

A fifth issue is the finding that divorced and separated respondents were less personally alienated than married respondents. This finding is surprising in light of previous research findings (e.g., Campbell, 1979 and Vredenburgh and Sheridan, 1979) that married individuals have a higher well-being and are less alienated than non-married individuals. A possible explanation for the finding in this study is that in previous research, alienation was evaluated as one variable while in this study personal and social aspects of alienation are evaluated separately. Therefore, it is possible that married people are less alienated socially[1] but not necessarily less alienated personally, or, as the results of this study indicate, are in fact even more alienated personally.

The last issue is the difference between the results for Personal Alienation and for Social Alienation. Theoretically, the two dependent variables were expected to yield similar results, since the rationale for the model's hypotheses was valid for either dependent variable. In practice, the demographic set explained a higher proportion of variance in PA than in SA (a difference of 17%), and a large effect size for PA ($f^2 = 0.30$) compared to a small effect size for SA ($f^2 = 0.064$). However, the model set (set B) yielded a nearly matching effect size for

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[1] Although an effect of marital status on social alienation was not found in this study.

PA and SA ($f^2 = 0.24$ and 0.25 respectively) although there was a small difference (3.8%) in the percent of variance explained by SA compared to PA. The higher proportion of variance explained by the demographic set in PA might be related to the fact that the concept of PA deals with feelings that are connected to personal associations and personal reality (compared to social association and social reality in SA), and therefore personal information of the kind dealt with in the demographic set might be more relevant to personal alienation feelings.

CHAPTER 7

LIMITATIONS OF THE STUDY

Two limitations of the present study should be emphasized. First, the analysis method used in this study is a correlational one, and as such does not provide a proof that income and the other independent variables of the model do indeed affect alienation. The question of income determination takes a variety of forms but can be subsumed under one of two basic positions--the selection and social causation arguments (Kessler, 1982). The selection causation position argues that people with higher well-being are more upwardly mobile, more confident, and hence more successful in terms of economic status. The social causation position argues that lower socioeconomic status leads to distress and lower well-being. In the income-well-being literature there has been a definite trend toward the social causation position, with researchers trying to show that income has an effect on different measures of well-being. The current study follows this trend in its attempt to show that income has an effect on feelings of alienation.

Nonetheless, even by demonstrating an empirical relationship between the model variables and alienation, one cannot definitely conclude a causal relationship between the dependent and independent variables. Thus, this study is merely a first step, among many needed,

toward reaching an understanding of the effects of income and related variables on feelings of alienation. Further research must be performed in order to strengthen this study's results and refine the proposed framework.

A second limitation of this study concerns the data collection procedure. The sample in this study was a snowball convenience sample. This sampling procedure was used in order to increase the chances of a high response rate and a high quality of data (in terms of missing values). This approach proved fruitful in that response rate was indeed high (88%) and there were almost no missing values for any of the variables. However, the limitation of a snowball sampling is that it does not necessarily provide a good representation of a specific population and it might be biased by the author's personal contacts (although these contacts were not restricted to personal acquaintances because 'first-order' contacts provided additional contacts of their own).

Although the sample in this study was not intended to be representative of a specific population, in order to determine the extent to which the results of this study are generalizable, the demographic information of the study's respondents was compared to the nation's corresponding information, as taken from the 1993-1994 Bureau of Labor Statistics (BLS) publications. Comparing the demographic

information gathered in this study to the categorization of the BLS, frequencies for Occupation, Education, Age, Gender, and Marital Status were compared using a X^2 test.[1] There were statistically significant differences between the national frequencies and this study's frequencies in all variables except Marital Status, although the frequencies for Gender and to some extent Age, were fairly similar. In the case of Education and especially Occupation the exceptionally high overall value of X^2 was mostly due to over-representation of respondents from one category ('college or more' and 'managerial and professional', respectively) in the sample. While the study's demographics are different from the nationwide demographics, each variable is represented by about 10% (30 observations) or more of the sample in each category (except when the percentage in the nationwide data is about 10% or less for that category). Therefore, the results can be generalized, with some restrictions, to the general population of full-time employees, although they best fit the more educated employees in managerial or professional occupations.

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[1] See Table 11 below.

Table 11: Results of X^2 Test
Comparing Frequencies of National and Study Demographics

DEMOGRAPHIC VARIABLE	FREQUENCY IN NATIONAL SURVEY	FREQUENCY IN CURRENT STUDY	CHI-SQ. VALUE (df)
OCCUPATION	N = 305	N = 305	
Managerial & Professional	98 (32.1%)	176 (57.7%)	
Administrative	107 (35%)	59 (19.3%)	
Service	48 (15.7%)	40 (13.1%)	
Blue-collar	52 (17.2%)	30 (9.9%)	94.5** (3)
AGE			
20-24	35 (11.6%)	19 (6.2%)	
25-34	87 (28.6%)	121 (39.7%)	
35-44	90 (29.5%)	103 (33.8%)	
45-54	63 (20.5%)	45 (14.7%)	
55 and over	30 (9.8%)	17 (5.6%)	33.2** (4)
MARITAL STATUS			
Married	180 (59%)	164 (54%)	
Separated, Divorced, or Widowed	46 (15%)	41 (13%)	
Single	79 (26%)	100 (33%)	7.9 (2)
GENDER			
Female	140 (46%)	165 (54%)	
Male	164 (54%)	140 (46%)	7.9** (1)
EDUCATION			
Less than high school	39 (12.7%)	33 (10.8%)	
High school	121 (39.6%)	29 (9.6%)	
Some college	64 (21%)	37 (12.1%)	
College or more	81 (26.7%)	206 (67.5%)	272** (3)

** significant at the .01 level

CHAPTER 8

CONCLUSIONS AND IMPLICATIONS

Conclusions

The relationship between income and well-being has been investigated in previous research, and studies have supported the existence of such a relationship. In these studies, researchers proposed that higher income is related to higher well-being. The purpose of this study was to concentrate on one facet of well-being - alienation - and to investigate whether a relationship exists between alienation and income. This specific relationship has not been empirically substantiated until now and I suspect the major reason for that was a simplistic approach to the issue. Reviewing the complexity of the arguments that theoretically support this relationship, it is apparent that the measurement and approach used in these research attempts underestimated the arguments' complexity. While the arguments discussed feelings, perceptions, and attitudes, the measurement used was a single number representing the level of income. In this study I approached the question in a multifarious manner, measuring not only absolute amounts of income but also associated variables, in order to depict a broader picture of people's financial reality (objective and subjective) and its relationship

to feelings of alienation. By doing so it was hoped that we would come to a better understanding of the alienation phenomenon and of the elements that affect or predict its level.

The parts of the model for which empirical support was found are shown in Figure 2 below for Personal Alienation as the dependent variable, and in Figure 3 below for Social Alienation as the dependent variable.

The major findings of this study can be summarized as follows:

* Individuals with higher income have lower personal and social alienation levels.

* Individuals with higher satisfaction with their income have lower personal and social alienation levels.

* Individuals with higher control over the amount they earn have lower personal and social alienation levels.

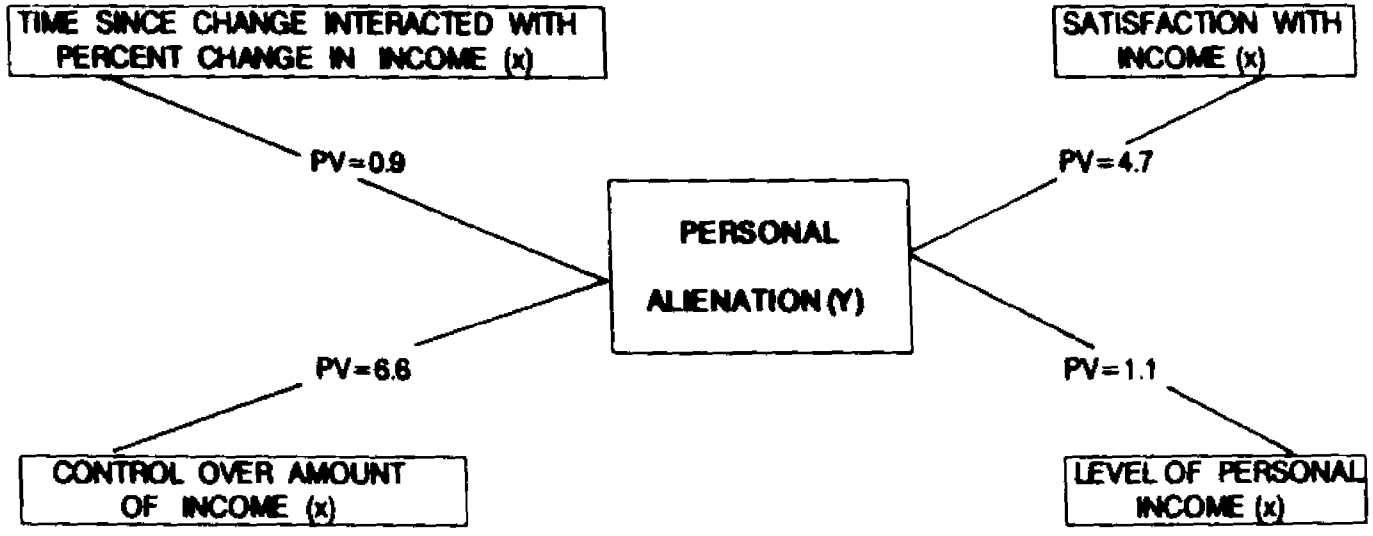
* For individuals who had change in their income, the more recent that change is, the more that change affects their personal and social alienation levels.

* The more individuals value money, the more income affects their social alienation level.

Taking into account the restrictions of the study's sample, these findings are incremental to the effect of the individual's gender, age, marital status, number of children, education level, occupation, and time on the job, on alienation.

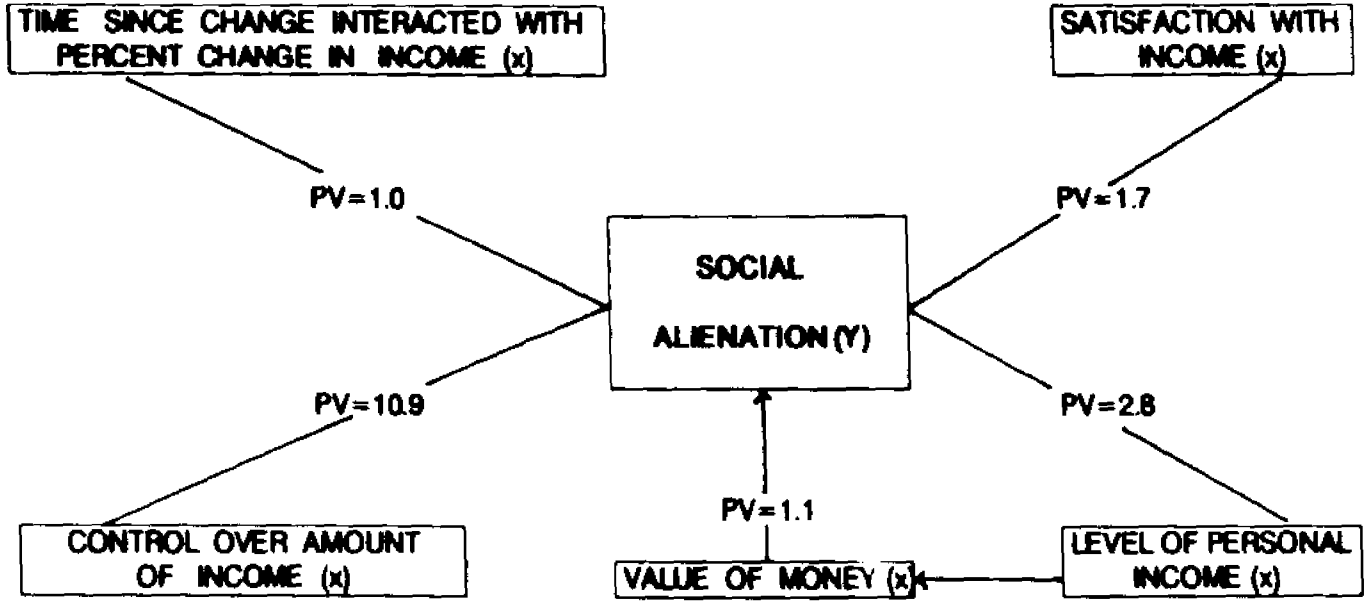
Although a relationship between alienation and personal income is supported by the findings of this study (a result that was not achieved in previous research despite sound theoretical support), the major contribution of the study is the model which includes the control over amount of income variable and the pay satisfaction variable that together explain a large percent of the variance in alienation. Also, the time since change and value of money variables add to the extensiveness of the framework, and their effect combined with the effects of the other model variables lead to the conclusion that the relationship between alienation and income is not simple and direct but rather a relationship that is comprised of direct and indirect effects and is complex in nature.

Figure 2: The Relationship between Income, Related Variables and Personal Alienation : Empirical Model



PV – percent of variance explained by an independent variable (x) in the dependent variable (Y)

Figure 3: The Relationship between Income, Related Variables and Social Alienation : Empirical Model



PV – percent of variance explained by an independent variable (x) in the dependent variable (Y)

Implications

Implications for organizations

Feelings of alienation have a negative effect on organizations and individuals alike. Individuals feel detached from themselves and from others, and this detachment results in their unwillingness to participate and to perform the work the organization expects them to (Cummings & Manring, 1977). Alienated individuals avoid exploratory behavior, which is important for growth, development, and survival, and in that way they are handicapped as people and as employees (Maddi, Hoover, & Kobasa, 1982). It is in the interest of both organizations and individuals to be more knowledgeable about the sources of feelings of alienation, and to use this knowledge in the most practical way possible in order to promote people's self-image and sense of power, and fight the debilitating situation of personal and social alienation.

It was hoped that the results of this study will contribute to this goal. Although income is only one of several sources of alienation, it is one to which changes can be made because it is readily observed and quantified. The basic conclusion from this study is that higher income is related to lower alienation and that this effect goes beyond the impact of demographic characteristics that are associated with income. Although the strait-forward implication from this conclusion would have

been to increase income levels, it is not necessarily desirable for management and requires a careful cost-benefit analysis. Nevertheless, other conclusions from this study can lead to more desirable practical implementations.

Let us consider the result that higher control over amount of income is related to lower alienation. Management can change the composition of employees' income to increase their control over the amount they earn by adding personal bonuses and, where relevant, commission-based salaries, allowing more control over hours of work, or by paying according to personal piece rate when applicable. By doing so, management can decrease employees' powerlessness over their income and therefore decrease their alienation to some degree.

The implication of the finding that higher pay satisfaction is related to lower alienation is that it may be useful for management to examine whether employees are satisfied with their income and to identify the factors that reduce pay satisfaction in their organization (beyond the level of income). Controlling and changing these factors in ways that will improve employee well-being and decrease alienation is feasible. For example, Lee and Martin (1991) found that employees are concerned with pay equity relative to referents with similar earnings. Thus, management may present pay information to its employees in order to increase feelings of fairness and pay adequacy, and hence increase pay

satisfaction. Also, according to McFarlin and Sweeney (1992), distributive justice[1] is an important predictor of pay satisfaction. Thus, management can increase pay satisfaction by improving distributive justice within its organization. Lastly, reforms in benefits or in the frequency of payments are other examples of measures that can affect pay satisfaction.

Individual implications

In addition to efforts by management, individuals can also strive to decrease their alienation level by looking for jobs that have some or all of the features mentioned above (control over amount of income, pay satisfaction, and desired level of income). In addition, considering the effect of value of money on the relationship between income and social alienation, individuals to whom money means very much, either financially or symbolically, may want to look for a better paying job to reduce feelings of social alienation, even if such a job lacks other desirable features such as intrinsic satisfaction. Also, considering the effect of pay satisfaction, employees may consciously change their attribution group or expectations, in an attempt to increase their pay satisfaction and decrease feelings of alienation.

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[1] i.e., whether employees are fairly rewarded in view of their responsibilities, experience, job stress, effort, and performance.

Applying these suggestions, together with consideration of other sources of alienation will potentially reduce alienation in the workplace and elsewhere, which is to the benefit of both management and employees.

Theoretical significance

The results of this study provide additional support for past well-being research through the confirmation of the relationship between alienation and income. For alienation research this study validates a relationship with income, which was previously proposed theoretically but was not substantiated empirically. Furthermore, the analysis isolates the unique relationship between income and alienation beyond the effect of demographic characteristics such as education and occupation that are associated with alienation and correlated with income. More important, however, is the study's depiction of a more extensive relationship between alienation and income by introducing relationships between alienation and income-related variables such as pay satisfaction and control over amount of income, and by refining the relationship of alienation with income by introducing moderating variables such as value of money and time since change in income. These variables contribute significantly to our theoretical knowledge of the relationship between

one's alienation and one's financial reality in terms of attitudes abilities and actual rewards.

Suggestions for future research

Further empiricism of the control over amount of income variable would aid in understanding the relationship between this variable and alienation. It would be valuable to assess the effect of subjective feelings of control over income compared to objective control, which was used in this study (i.e., inferring control over income from composition of income).

The relationship between pay satisfaction and alienation could be further refined by using discrepancy models of pay expectations and actual pay, and proposing different effects depending on size of discrepancy and reason for dissatisfaction.

With regard to level of income, it is suggested in the literature (Ullah, 1990) that measures of financial strain are better predictors of well-being than amount of income. Such measures could be incorporated into alienation research and compared to income level measures. Similarly, Mullis's (1992) economic well-being approach could be studied in relation to alienation, together with and in comparison to current reported income.

In addition, since income and eduction are two variables that are highly correlated, it would be valuable to find out whether it can be determined to which of the two variables should the shared explained variance in alienation be allocated. By designing a field study that will use a stratified sample it should be possible to control the level of one variable and determine to what degree does the other variable indeed explain variance in alienation.

Finally, additional sources of alienation should be identified in an attempt to portray a more complete and comprehensive framework of the variables and conditions that predict or affect alienation. As alienation continues to exist and devitalizes many in our society, the clearer and more complete our understanding of this phenomenon is, the more successful we may be in achieving a less alienated society and improving individuals' personal, familial, and professional existences.

APPENDIX A

Existing scales used in the questionnaire

Personal Alienation (PA) scale

1. In thinking of my life, I often wonder why I exist.

2. I often wish I were doing something else.

3. I feel that my daily activities don't reflect my real interests and values.

4. Facing my daily tasks is a painful and boring experience.

5 I have thought seriously of making major changes in my life.

6. I regard my life as meaningful in that it reflects my values. (R)

7. I would give a good deal to live a different life than I do.

8. I have discovered clear-cut goals and a satisfying life purpose. (R)

(Responses: (1) Strongly disagree - to - (5) Strongly agree).

Social Alienation (SA) scale

1. Sometimes I feel all alone in the world.

2. Real friends are easy to find as ever. (R)

3. There are few dependable ties between people anymore.

4. It is almost impossible for one person to really understand the feelings of another.

5. People are too self-centered.

6. Too many people in our society are just out for themselves and don't really care for anyone else.

7. Many people in our society are lonely and unrelated to their fellow human beings.

8. Most people do not hesitate to go out of their way to help someone in trouble. (R)

9. I can be comfortable with nearly all kinds of people. (R)

10. It's only a rare person who would risk their own life and limb to help someone else. (R)

(Responses: (1) Strongly disagree - to - (5) Strongly agree).

Pay Satisfaction Scale

1. I am very happy with the amount of money I make.

(Responses: Strongly disagree(1) - to - Strongly agree(7)).

2. Considering my skills and the effort I put into my work, I am very satisfied with may pay. (Responses: Strongly disagree(1) - to - Strongly agree(7)).

3. How satisfied are you with the amount of pay you get?

(Responses: Very dissatisfied(1) - to - Very satisfied(7)).

Money Ethic Scale

Money is 'Good' sub-scale

1. Money is important factor in the lives of all of us
2. Money is good
3. Money is important
4. I value money very highly
5. Money is valuable
6. Money does not grow on trees
7. Money can buy you luxuries
8. Money is attractive
9. I think that it is very important to save some money

Achievement Sub-scale

1. Money represents one's achievement
2. Money is the most important thing (goal) in my life
3. Money is a symbol of success
4. Money can buy everything

(Responses: (1) Disagree strongly - to - (4) Neutral - to - (7) Agree strongly)

continues on next page...

Respect (self-esteem) Sub-scale

1. Money makes people respect you in the community
2. Money is honorable
3. Money will help you express your competence and abilities
4. Money can bring you many friends

Freedom (power) Sub-scale

1. Money gives you autonomy and freedom
2. Money in the bank is a sign of security
3. Money can give you the opportunity to be what you want to be
4. Money means power

(Responses: (1) Disagree strongly - to - (4) Neutral - to - (7) Agree strongly)

APPENDIX B

LIFE, WORK AND MONEY QUESTIONNAIRE

BELOW ARE STATEMENTS CONCERNING THE WAY YOU FEEL ABOUT MONEY. PLEASE CIRCLE THE NUMBER UNDER THE WORDS THAT MOST CLOSELY REFLECT YOUR OPINION.

	Disagree Strongly			Neutral			Agree Strongly
1. Money is an important factor in the lives of all of us	1	2	3	4	5	6	7
2. Money is good	1	2	3	4	5	6	7
3. Money is important	1	2	3	4	5	6	7
4. I value money very highly	1	2	3	4	5	6	7
5. Money is valuable	1	2	3	4	5	6	7
6. Money does not grow on trees	1	2	3	4	5	6	7
7. Money can buy you luxuries	1	2	3	4	5	6	7
8. Money is attractive	1	2	3	4	5	6	7
9. I think that it is very important to save some money	1	2	3	4	5	6	7
10. Money represents one's achievement	1	2	3	4	5	6	7
11. Money is the most important thing (goal) in my life	1	2	3	4	5	6	7
12. Money is a symbol of success	1	2	3	4	5	6	7
13. Money can buy everything	1	2	3	4	5	6	7
14. Money makes people respect you in the community	1	2	3	4	5	6	7
15. Money is honorable	1	2	3	4	5	6	7
16. Money will help you express your competence and abilities	1	2	3	4	5	6	7
17. Money can bring you many friends	1	2	3	4	5	6	7
18. Money gives you autonomy and freedom	1	2	3	4	5	6	7
19. Money in the bank is a sign of security	1	2	3	4	5	6	7
20. Money can give you the opportunity to be what you want to be	1	2	3	4	5	6	7
21. Money means power	1	2	3	4	5	6	7

BELOW ARE STATEMENTS CONCERNING THE WAY YOU FEEL ABOUT YOUR JOB-RELATED INCOME. PLEASE CIRCLE THE NUMBER UNDER THE WORDS THAT MOST CLOSELY REFLECT YOUR OPINION.

	Disagree Strongly			Neutral			Agree Strongly
1. I am very happy with the amount of money I make.	1	2	3	4	5	6	7
	Disagree Strongly			Neutral			Agree Strongly
2. Considering my skills and the effort I put into my work, I am very satisfied with my pay.	1	2	3	4	5	6	7
	Very Dissatisfied			Neutral			Very Satisfied
3. How satisfied are you with the amount of pay you get?	1	2	3	4	5	6	7

LAST CHANGE IN YOUR INCOME

1. When was the last time the amount of your annual job-related income changed? (please enter the date of the last increase or decrease in your income regardless of reason):

   ___ /___ / ___ (month/day/year)

2. Was the change an increase or decrease? (circle one) 1. Increase 2. Decrease

3. What was the amount of the increase/decrease? _$ _____

4. What was the increase/decrease due to? (circle one)

   1. Promotion
   2. Change of job
   3. New degree/training
   4. Change in job demands/requirements
   5. General wage increase/decrease in my workplace
   6. Merit-related bonus or pay
   7. Other. Specify _____

WHICH OF THE FOLLOWING ITEMS ARE COMPONENTS OF YOUR JOB-RELATED INCOME? (CAN BE MORE THAN ONE. CIRCLE ALL THAT APPLY)

1. Fixed monthly/weekly salary
2. Monthly/weekly income determined by hours of work
3. Benefits (pension, medical insurance, vacation days etc.)
4. Commission as percent of sales
5. Tips
6. Bonuses paid according to individual performance
7. Bonuses paid according to group performance
8. Overtime pay (when I choose to stay overtime)
9. Overtime pay (overtime is required by management)
10. Annual bonuses
11. Income is based on personal piece-rate (quantity of production)
12. Income is based on group piece-rate (quantity of production)
13. Dividends from shares
14. Company bonds/stocks
15. Employees stock ownership plan
16. Other_____

BELOW ARE GENERAL STATEMENTS ABOUT VIEWS OF LIFE. PLEASE CIRCLE THE NUMBER UNDER THE WORDS TO THE RIGHT OF EACH STATEMENT THAT MOST CLOSELY REFLECT YOUR OPINION.

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1. In thinking of my life, I often wonder why I exist.	1	2	3	4	5
2. I often wish I were doing something else.	1	2	3	4	5
3. I feel that my daily activities don't reflect my real interest and values.	1	2	3	4	5
4. Facing my daily tasks is a painful and boring experience.	1	2	3	4	5
5. I have thought seriously of making major changes in my life.	1	2	3	4	5
6. I regard my life as meaningful in that it reflects my values.	1	2	3	4	5
7. I would give a good deal to live a different life than I do.	1	2	3	4	5
8. I have discovered clear-cut goals and satisfying life purpose.	1	2	3	4	5
9. Sometimes I feel all alone in the world.	1	2	3	4	5
10. Real friends are easy to find as ever.	1	2	3	4	5
11. There are few dependable ties between people any more.	1	2	3	4	5
12. It is almost impossible for one person to really understand the feelings of another.	1	2	3	4	5
13. People are too self-centered.	1	2	3	4	5
14. Too many people in our society are just out for themselves and don't really care for anyone else.	1	2	3	4	5
15. Many people in our society are lonely and unrelated to their fellow human beings.	1	2	3	4	5
16. Most people do not hesitate to go out of their way to help someone in trouble.	1	2	3	4	5
17. I can be comfortable with nearly all kinds of people.	1	2	3	4	5
18. It's only a rare person who would risk their own life and limb to help someone else.	1	2	3	4	5

Biographical data

1. Age: ____

2. Gender (circle one): 1. Female 2. Male

3. Marital Status (circle one): 1. Single 2. Married 3. Divorced 4. Widowed 5. Separated

4. Number of children: ____

5. Education level (circle one):
1. Less than high-school
2. High school completed
3. Some college
4. College completed
5. Some graduate school
6. Graduate school completed
7. Other: _____

6. Occupation (circle one):
1. Managerial
2. Professional
3. Administrative
4. Service
5. Blue collar
6. Other: _____

7. Do you work for the federal, state or local government? (circle one) 1. Yes 2. No

8. How long have you worked at your current job? ____ Years & ____ Months

9. How secure do you feel about the likelihood of keeping your job? (circle one)

1. Very secure 2. Secure 3. Can't decide 4. Insecure 5. Very insecure

10. Is this the first full-time job you had? (circle one) 1. Yes 2. No

11. Approximately what is the level of your gross annual job-related income? (circle one)

1. Less than 10,000
2. 10,000-19,999
3. 20,000-29,999
4. 30,000-39,999
5. 40,000-49,999
6. 50,000-59,999
7. 60,000-69,999
8. 70,000-79,999
9. 80,000-89,999
10. 90,000-99,999
11. 100,000-119,000
12. 120,000-149,999
13. 150,000 or above

12. Approximately what is the level of your spouse's annual job-related income? (circle one)

0. Not married
0. Spouse currently not working
1. Less than 10,000
2. 10,000-19,999
3. 20,000-29,999
4. 30,000-39,999
5. 40,000-49,999
6. 50,000-59,999
7. 60,000-69,999
8. 70,000-79,999
9. 80,000-89,999
10. 90,000-99,999
11. 100,000-119,000
12. 120,000-149,999
13. 150,000 or above

13. For 1993, approximately how much did you earn from sources other than your job and your spouse's job (such as interest, dividends)? _$_____

14. How long have you lived in the U.S.? (answer one) 1. All my life 2. ____ Years

APPENDIX C

Dummy Variable Manipulation

Variables that were on a nominal scale in the questionnaire, were transformed into dummy variables in order to make them continuous for the regression analysis.

Some levels of the variables were grouped according to logical combinations (e.g., separated and divorced were grouped into one dummy variable) in order to decrease the number of variables and increase power. For each group of dummy variables one level is the base group and all the others are compared to it. The base group chosen was the one with the highest percentage of respondents. The variables below were manipulated and grouped as follows:

Marital Status:

- Mari14 = Single and Widowed
- Mari35 = Divorced and Separated
- Base group = Married

Occupation

- Occu34 = Administrative and Service
- Occu5 = Blue collar

- Base group = Managerial and Professional

Reason for Change

- Res1234 = Promotion, Change of job, New degree, Change in job demands
- Res6 = Merit-related bonus
- Base group = General wage increase/decrease

Control Over Amount of Income (main effect and interaction)

- COAI1 = Commission, Tips, Personal piece rate (labeled 'Immediate control over one's income')
- COAI2 = Overtime (when chosen), Bonus paid according to individual performance (labeled 'Piecemeal control over one's income')
- COAI1x = Interaction of COAI1 with Income
- COAI2x = Interaction of COAI2 with Income

Other computations

Personal and Spousal Income level (INCOME and INC-SPO)

Income was represented by an ordinal scale in the questionnaire, and ranged from 1 to 13, with equal intervals. In the regressions this variable was transformed so that each level was represented by the

middle point amount. Thus, if level 2 read "10,000-19,999", it was transformed to 15,000 and so on.

Percent Change in Income (%CHANGE)

The amount of change that was reported by the respondent was multiplied by 100 and divided by the income level he/she reported (as computed above) to create the variable PERCENT CHANGE IN INCOME.

Time Since Change interaction (TIMEx)

TIME SINCE CHANGE was computed by using the date the respondent returned the questionnaire (rounded to the closest half month) and the date of the change in income reported by the respondent. The interaction variable was computed by multiplying TIME SINCE CHANGE by PERCENT CHANGE.

Money interaction (MONEYx)

The interaction variable MONEYx was created by multiplying the variable MONEY with the variable INCOME.

References

Abraham, K. (1917/1953). The spending of money in anxiety states in D. Bryan and A. Struchey (trans.). Selected papers of Karl Abraham M.D.. New York: Basic Books, Inc., Publishers.

Adelmann, P.K. (1987). Occupational complexity, control, and personal income: Their relation to psychological well-being in men and women. Journal of Applied Psychology, 72(4), 529-537.

Aiken, M., Ferman, L.A., & Sheppard, H.L. (1968). Economic Failure, Alienation, and Extremism. Ann Arbor, MI: University of Michigan Press.

Anastasi, A. (1976). Psychological Testing. New-York: Macmillan.

Babbie, E.R. (1986). The practice of social research. Belmont, CA: Wadsworth Inc.

Barnett, R.C. & Baruch, G.K. (1985). Women's involvement in multiple roles, role strain, and psychological distress. Journal of Personality and Social Psychology, 49, 135-145.

Baruch, G.K. & Barnett, R.C. (1986). Role quality, multiple role involvement, and psychological well-being in midlife women. Journal of Personality and Social Psychology, 51(3), 578-585.

Baruch, G.K., Biener, L., & Barnett, R.C. (1987). Women and gender in research on work and family stress. American Psychologist, 42(2), 130-136.

Becker, G.S. (1975). Human Capital. New York: National Bureau of Economics Research. 2nd Edition.

Bernoulli, D. (1954). Exposition of a new theory on the measurement of risk. Econometrica, 22, 23-36.

Blauner, B. (1964). Alienation and Freedom. Chicago, IL: University of Chicago Press.

Brown, J.S. (1961). The motivation of behavior. New York: McGraw-Hill.

Burris, B.H. (1983). No room at the top. New York: Prager.

Cammann, C., Fichman, M., Jenkins, D., & Klesh J. (1979). The Michigan Organizational Assessment Questionnaire. Unpublished Manuscript, University of Michigan, Ann Arbor, Michigan.

Campbell, A. (1976). Subjective measures of well-being. American Psychology, 31, 117-124.

Chartrand, J.M., Dohm, T.E., Dawis, R.V., & Lofquist L.H. (1989). Estimating occupational prestige. Journal of Vocational Behavior, 31, 14-25.

Cohen, J. (1988). Statistical Power Analysis for the Behavioral Sciences. Hillsdale, NJ: Lawrence Erlbaum Associates, Publishers.

Cohen, J. & Cohen, P. (1983). Applied multiple regression/correlation analysis for the behavioral sciences. Hillsdale, NJ: Lawrence Erlbaum Associates.

Collingwood, H. (1993). That shut-out feeling. Business Week, Jan. 18, no. 3301.

Crohan, S.E., Antonucci T.C., Adelmann, P.K., & Coleman L.M. (1989). Job characteristics and well-being at midlife. Psychology of Women Quarterly, 13, 223-235.

Crump, T. (1981). The phenomenon of money. London: Routledge & Kegan Paul Ltd.

Cummings, T.G. & Manring, S.L. (1977). The relationship between worker alienation and work-related behavior. Journal of Vocational Behavior, 10, 167-179.

Diener, E., Sandvik, E., Seidlitz, L. & Diener, M. (1993). The relationship between income and subjective well-being: Relative or absolute? Social Indicators Research, 28, 195-223.

Dohrenwend, B.S. (1970). Social class and stressful events. In E.H. Hare & K.K. Wing (eds.), Psychiatric Epidemiology. New York: Oxford Press.

Dohrenwend, B.S. (1973). Social status and stressful life events. Journal of Personality and Social Psychology, 9, 203-214.

Dohrenwend, B.P. & Dohrenwend, B.S. (1969). Social status and psychological disorders. New York: Wiley Press.

Dubin, R. (1956). Industrial workers' world: A study of the central life interest of industrial workers. Social Problems, 3, 131-142.

Duffy, M.E. (1989). Mental well-being and primary prevention practices in women heads of one-parent families. Journal of Divorce, 13(1), 45-64.

Durant, T.J. & Christian, O. (1990). Socio-economic predictors of alienation among the elderly. International Journal of Aging and Human Development, 31(3), 205-217.

Durkheim, E. (1947). The division of labor in society. Glencoe, Ill: The Free Press.

Easterlin, R.A. (1973). Does money buy happiness? The Public Interest, 30, 3-10.

Edidin, P. (1989). Drowning in wealth. Psychology Today, Apr., 33-35, 74.

Efraty, D., Sirgy, M.J., & Claiborne, C.B. (1991). The Effect of Personal Alienation on Organizational Identification: A quality-of-work-life Model. Journal of Business and Psychology, 6(1), 57-78.

Erikson, K. (1986). On work and alienation. American Sociological Review, 51, 1-8.

Farh, J.L., Griffeth, R.W., & Balkin, D.B. (1991). Effects of choice of pay plans on satisfaction, goal setting, and performance. Journal of Organizational Behavior, 12(1), 55-62.

Furnham, A. (1984). Many sides of the coin: The psychology of money usage. Personality and individual Differences, 5(5), 501-509.

Fried, M. (1975). Social differences in mental health. In J. Kosa & I. Zola (eds.), Poverty and health: A sociological Analysis. rev. ed., Cambridge: Harvard University Press.

Gellerman, S.W. (1963). Motivation and productivity. New York: American Management Association.

George, J.M., & Brief, A.P. (1990). The economic instrumentality of work: An examination of the moderating effects of financial requirements and sex on the Pay-Life satisfaction relationship. Journal of Vocation Behavior, 37, 357-368.

Geyer, R.F. (1980). Alienation theories: A general systems approach. Oxford: New York: Pergamon Press.

Gilbert, J.B. (1977). Work without salvation: America's intellectuals and industrial alienation. Baltimore: Johns Hopkings University Press.

Harris, G.T., & Yankelovich, D. (1989). What good are the rich? Psychology Today, Apr., 36-39.

Headey, B. (1993). An economic model of subjective well-being: Integrating economic and psychological theories. Social Indicator Research, 28, 97-116.

Helson, H. (1964). Adaptation Level Theory. New York: Harper & Row.

Heneman III, H. G., & Schwab, D.P. (1985). Pay satisfaction: Its multidimensional nature and measurement. International Journal of Psychology, 20, 129-141.

Heneman, R.L., Greenberger, D.B., & Strasser, S. (1988). The relationship between pay-for-performance perception and pay satisfaction. Personnel Psychology, 41(4), 745-759.

Holland, J.L. (1973). Making vocational choices. Englewood Cliffs, NJ: Prentice-Hall.

Johnson, F. (1973). Psychological alienation: Isolation and Self-estrangement. In Frank Johnson (Ed.). Alienation, concept, term, and meaning. New York: Seminar Press.

Kahneman, D. & Tversky, A. (1984). Choices, values, and frames. American Psychologist, 39 (4), 341-350.

Kanungo, R.N. (1982). Work alienation: An integrative approach. New York: Praeger.

Kessler, R.C. (1982). A disaggregation of the relationship between socioeconomic status and psychological distress. American Sociological Review, 47, 752-764.

Kessler, R.C. & Cleary, P.D. (1980). Social class and psychological distress. American Sociological Review, 45, 463-478.

Klein, E. (1966). A comprehensive Etymological Dictionary of the English Language. New York: Elsevier Publishing Co.

Kidder, L.H. & Judd, C.M. (1986). Research Methods in Social Relations. New-York: Holt, Rinehart, Winston, Inc.

Korman A.K. (1992). Alienation and Work. Forthcoming.

Landi, A. (1989). Everything isn't enough. Psychology Today, Apr., 27-30.

Langner, T.S., & Michael, S.T. (1963). Life stress and Mental health. New York: The Free Press.

Lapham, L. (1988). McGraw-Hill.

Lee, R.T. & Martin, J.E. (1991). Internal and external referents as predictors of pay satisfaction amount employees in a two-tier wage setting. Journal of Occupational Psychology, 64(1), 57-66.

Link, B. (1982). Mental patient status, work, and income: An examination of the effects of a psychiatric label. American Sociological Review, 47, 202-215.

Maddi, S.R., Hoover, M., & Kobasa, S.C. (1982). Alienation and exploratory behavior. Journal of Personality and Social Psychology, 42(5), 884-890.

Maddi, S.R., Kobasa, S.C., & Hoover, M. (1979). An alienation test. Humanistic Psychology, 19 (4), 73-76.

Major, B., Vangerslice, V., & McFarlin, D.B. (1984). Effects of pay expected on pay received: The confirmatory nature of initial expectations. Journal of Applied Social Psychology, 14(5), 399-412.

McClelland, D.C. (1967). Money as a motivator: Some research insight. The McKinsey Quarterly, Fall, IV(2), 10-21.

McClelland, D.C. (1961). The Achieving Society. Princton, NJ: D. Van Nostrand Co.

McFarlin, D.B. & Sweeney, P.D. (1992). Distributive and procedural justice as predictors of satisfaction with personal and organizational outcomes. Academy of Management Journal, 35(3), 626-637.

Merriam-Webster (1991). Webster's Ninth Collegiate Dictionary. New-York: World Publishing.

Motowidlo, S.J. (1983). Predicting sales turnover from pay satisfaction and expectation. Journal of Applied Psychology, 68(3), 484-489.

Mullis, R.J. (1992). Measures of economic well-being as predictors of psychological well-being. Social indicators research, 26, 119-135.

Murphy, K.E. (1985). Macro versus micro remedies for alienation in the workplace.
International Journal of Public Administration. 7(1), 83-105.

Myers, J.K., Lindenthal, J.J., & Pepper, M.P. (1974). Social class, life events and psychiatric symptoms: A longitudinal study. In B.P. Dohrenwend & B.S. Dohrenwend (eds.), Stressful life events. New York: Wiley Press.

Otto, L.B. & Featherman, D.L. (1975). Social structural and psychological antecedents of self-estrangement and powerlessness. American Sociological Review, 40, 701-719.

Rice, R.W., Phillips, M.S., & McFarlin, D.B. (1990). Multiple discrepancies and pay satisfaction. Journal of Applied Psychology, 75(4), 386-393.

Rubenstein, C. (1981). Money and self-esteem, relationships, secrecy, envy, and satisfaction. Psychology Today, May, 15(5), 29-44.

Schmitt, R. (1983). Alienation and class. Cambridge, Mass: Schenkman.

Schwalbe, M.L. (1986). The psychological consequences of natural and alienated labor. Albany, NY: State University of New York Press.

Seashore, S.E., Lawler, E.E., Mirvis, P., & Cammann C. (Eds.) (1982). Observing and measuring organizational Change: A guide to field practice. New-York: Wiley.

Seeman, M. (1967). On the personal consequences of alienation in work. American Sociological Review, 32(2), 273-285.

Seeman, M. (1971). The urban alienation: Some dubious theses from Marx to Marcuse. Journal of Personality and Social Psychology, 19 (2), 135-143.

Seeman, M. (1975). Alienation studies. Annual Review of Sociology, 1, 91-123.

Seeman, M. (1976). Empirical alienation studies: An overview. In R.F. Geyer & D.R. Schweitzer (Eds.), Theories of alienation (pp. 265-297). Leiden: H.E. Stenfort Kroese bv.

Seeman, M. (1983). Alienation motifs in contemporary theorizing: The hidden continuity of the classic themes. Social Psychology Quarterly, 46(3), 171-184.

Seeman, M., Seeman, A.Z., & Budros, A. (1988). Powerlessness, work, and community: A longitudinal study of alienation and alcohol use. Journal of Health and Social Behavior, 29, 185-198.

Shapiro, J.H. (1976). Models of pay satisfaction: A comparative study. Psychological Reports, 39, 223-230.

Silver, M.L. (1986). Under construction: Work and alienation in the building trades. Albany: SUNY press.

Smith, P.C., Kendall, L.M., & Hulin, C.L. (1969). The measurement of satisfaction in work and retirement. Chicago: Rand-McNally.

Smith, A.D. & Reid, W.J. (1986). Role expectations and attitudes in dual-earner families. Social Caseework, 67(7), 394-402.

Staines, G.L., Pottick, K.J., & Fudge, D.A. (1986). Wive's employment and husbands' attitudes toward work and life. Journal of Applied Psychology, 71(1), 118-128.

Sweeney, P.D., Mcfarlin, D.B., & Inderrieden, E.J. (1990). Using relative deprivation theory to explain satisfaction with income and pay level: A multistudy examination. Academy of Management Journal, 33(2), 423-436.

Tang, T.L. (1992). The meaning of money revisited. Journal of Organizational Behavior, 13, 197-202.

Tussing, A.D. (1973). Alienation and the U.S. economic future. In Frank Johnson (ed.). Alienation, concept, term, and meaning. New York: Seminar Press.

Ullah, P. (1990). The association between income, financial strain and psychological well being among unemployed youths. Journal of occupational psychology, 63(4), 317-330.

US Bureau of Labor Statistics (1993-94). Employment and Earning, Monthly.

US Bureau of Labor Statistics (1994). Handbook of Labor Statistics.

Viinamaki, H., Koskela, K., Niskanen, L. & Arnkill R. (1993). Unemployment, financial stress and mental well-being: A factory closure study. European Journal of Psychiatry, 7(2), 95-102.

Wachtel, P.L.(1989). The Poverty of Affluence. Penn: New Society Publishers.

Weiss, D,J., Dawis, R.V., England, G.W., & Lofquist, L.H. (1967). Manual for the Minnesota Satisfaction Questionnaire. Minneapolis: University of Minnesota, Industrial Relations Center.

Wernimont, P.F., & Fitzpatrick, S. (1972). The meaning of money. Journal of applied psychology, 56(3), 218-226.

Wheaton, B. (1978). The sociogenesis of psychological disorder: Reexamining the causal issues with longitudinal data. American Sociological Review, 43, 383-403.

Wheaton, B. (1980). The sociogenesis of psychological disorder: An attributional theory. Journal of Health and Social Behavior, 21, 100-124.

Wollack, S., Goodale, J.G., & Wijting, J.P. (1971). Development of the survey of work values. Journal of Applied Psychology, 55(4), 331-338.