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Career Development of Adolescents: An Ecological Perspective

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Bronfenbrenner's ecological model of human development is used as a framework for examining the research on the career development of adolescents. The examination of the four contexts—the microsystem, the mesosystem, the exosystem, and the macrosystem—provides an additional perspective to the ontogenic (individual) approach that has predominated the research literature in this field. Among the four contexts examined, some research on the influence of microsystem, including family, school, peer group, and workplace is identified. The amount of developmentally based research drops off quickly for the other systems, although there are other pertinent research and social issues for each system. Research and intervention implications of this perspective are indicated.

INTRODUCTION

If we adapt Hamilton and Crouter's (1980) definition of development to the career area, it reads: Career development means the growing capacity of the person to understand and act on the career environment. Although this description addresses biological and social influences on the career development process, the latter have received much less attention in career

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development theory and research. Gottfredson (1982), for example, has recommended that priority in research be placed on the relative importance of various environmental influences in vocational choice and development. And although Super (1980; Super and Bachrach, 1957) included an environmental component in his formulations, he acknowledged that situational variables have not been adequately investigated in the career development literature.

Part of the problem has been that researchers and theoreticians have not had truly developmental models in which they were able to incorporate individual as well as environmental variables. Recently, Bronfenbrenner (1977, 1979) has provided an ecological model that permits development to be understood in terms of four hierarchically embedded contexts. He has described human development as occurring in an ecological environment composed of such nested contexts.

The purpose of this study is to illustrate, by focusing specifically on career development research on adolescents and young adults, the way in which Bronfenbrenner's ecological model is useful in providing a framework for career development research. The model may be found to be equally heuristic for career development research on other age levels or groups.

For the purposes of this study, each of Bronfenbrenner's four contexts in which human development occurs has relevance. The microsystem addresses the immediate settings that contain the developing person, including the home, the school, the workplace, and peer groups. The mesosystem comprises the interrelations among two or more of the major microsystems in which the developing person participates, for example, the interrelation between the school and the workplace. Specific social structures, such as the parents' social network or school district policies, which impinge on or encompass the immediate settings of the developing person but in which she does not directly participate are identified as the exosystem. Finally, the influence of cultural values and beliefs and historical events, such as the role of gender in career development or the role of work in life, are considered macrosystem factors.

These systems are seen as contexts in which individual career development takes place. Others, notably Belsky (1980), have argued for inclusion of an ontogenic system, representing individual psychological development. Whenever career behavior can be treated as an ultimate product of biology, psychology, and the environment in which development occurs, we increase the possibility of identifying a continuous explanatory system. It is in search of such a system that this study is offered, although the focus will be limited to the ecological contexts in which the career development of adolescents occur. For a recent review of the ontogenic area of career development, see Holland *et al.* (1981).

THE MICROSYSTEM

There are at least four major microsystems in which adolescent development occurs and which have relevance to career development: the family, the school, the workplace, and the peer group. In each of these settings the adolescent has identifiable patterns of roles, activities, and interpersonal relationships, and in each setting the adolescent engages in face-to-face interactions in ways in which he can influence the microsystem as well as be influenced by it. These are the microsystem characteristics of these settings. At the same time, aspects of these settings may be viewed from other ecological contexts. For example, there is sample evidence regarding the effect of family socioeconomic status (SES) on the career development of the adolescent, but SES is a variable that the adolescent does not influence directly, so it is considered an exosystem variable. The microsystem considers interactive processes in which at least one party is the developing adolescent.

Family

Six microsystem characteristics of the family setting have been identified as influencing career development: birth order, early parent-child interaction, identification with parents, perception of parental influence, and amount of contact with parents.

While the family has traditionally been thought of as an important influence in the career development of children, many adolescents do not acknowledge any significant parental influence in their eventual career or educational choices (O'Niel *et al.*, 1980; Weishaar *et al.*, 1981). Among students who do acknowledge the influence of some significant other, parents, particularly the father, are identified as the most significant. The apparent lack of willingness to acknowledge the influence of parents on career development variables is not substantiated by what may be the actual influence in areas such as birth order (Weller *et al,* 1976), early parent-child interaction (Medvene and Shueman, 1978; Roe and Siegelman, 1964), identification with parents (Jackson and Meara, 1977; Ridgeway, 1978; Tangri, 1972), parental support (Goodale and Hall, 1976; Lunneborg, (1982), perceived parental influence (McClure and Piel, 1978; O'Neil *et al.*, 1980), and differential socialization for males and females (Block, 1979). The criterion variables in these studies have characteristically been actual choice of college major or occupational field or career orientation among women, rather than specific developmental process variables such as planning orientation or accepting responsibility for self.

A number of studies include variables from other ecological contexts in examining the effect of the family setting. Farmer (1980) examined a

microsystem variable, early family socialization, combined with ontogenic and exosystem variables in optimizing achievement and career motivation for high school girls. Early family socialization was not supported in Farmer's study. Several studies (Goodale and Hall, 1976; McClure and Piel, 1978; Ridgeway, 1978) investigated the microsystem variable in relation to ontogenic factors. Zuckerman (1980) examined variables from ontogenic, microsystem, and exosystem contexts. Many of the recent family microsystem studies in this area have focused on women. But without a more comprehensive examination of both criterion variables and dependent variables, the real effect of the family will remain overlooked. Specific family microsystem variables that need to be investigated include parents' beliefs about their role in the career development of their adolescent children and the parents' actual behaviors in the home.

School

The high school is a microsystem in which the adolescent engages in direct face-to-face interaction. One of the acknowledged purposes of high school is to prepare the adolescent for life and work. This microsystem should have a great deal of influence on the career development of adolescents. Two groups of variables can be identified in an examination of the microsystem characteristics of the school. First, explicit career interventions in the form of individual and group counseling and curriculum interventions intended to foster career development and, second, the implicit career interventions that occur broadly in the curriculum, school organization, and extracurricular activities.

Fretz (1981), in his review of the effectiveness of explicit career interventions, grouped treatment parameters as follows: content domain, interpersonal context, and degree of structure, all of which apply to the career interventions the school provides adolescents. Although proportionately fewer, evaluative studies have found these procedures to affect a broad range of outcomes—from career knowledge and skills, career behavior, and sentiments to effective role functioning.

The implicit effects of the school on the adolescent's career development are not as clearly identified in the research literature, although they are relevant to subsequent career attitudes, behavior, and roles. The literature on adolescent socialization and the high school (see review in McClintock, 1979) suggests that high schools provide adolescents with experiences, types of relationships, and involvements not encountered in other settings and that these socialization experiences transmit information, skills, and motivation that permit the adolescent to perform adequately in

adult roles. Kelly (1979) and his colleagues, for example, established the relationship between exploratory behavior and the high school environment. Although exploratory behavior in their studies was not explicitly career exploratory behavior, the relationship between the two is apparent. Mosher and Srinthall (1970) have critiqued the negative psychological effects many secondary school curricula implicitly foster. Jenks *et al.* (1972) question the impact of schooling on adult educational and occupational attainment, suggesting that the role of learning to obey instructions and to perform under supervision to meet requirements has the effect of occupational control.

Peer Group

Surprisingly little empirical research has investigated the effect of the peer group context on vocational development, although the importance of this context for adolescent development is generally acknowledged (Ausubel, 1954; Newman and Newman, 1976; Seltzer, 1982). As with the influence of parents, adolescents perceive peers as having little influence in career planning and choice (O'Neil *et al.*, 1980; Weishaar *et al.*, 1981); although Farmer (1980) found that community support, which included peer influence, was significant in the career motivation and achievement orientation in adolescent women. Earlier, in a series of studies, Krumboltz and Thoresen (Thoresen and Krumboltz, 1968; Thoresen *et al.*, 1967; 1970) showed that the use of attractive role models (peers) was influential in increasing vocational information seeking among adolescents.

Workplace

Increasingly, adolescents are participating in the workplace through part-time and seasonal employment (Greenberger *et al.*, 1980). The workplace has joined the family, the school, and the peer group as an important microsystem setting for the adolescent. In addition to socialization to adult and job roles, adolescent work experience is promoted as increasing realistic career directions as well as knowledge of career possibilities and concomitant requirements. Specific evidence for these outcomes is lacking in Hamilton and Crouter's (1980) and Steinberg's (1982) literature reviews, as well as in several studies by Greenberger and Steinberg and their colleagues (Greenberger *et al.*, 1980; Steinberg *et al.*, 1981, 1982; Greenberger and Steinberg, 1981), which report positive and negative effects of working on adolescent development. Although some career development variables such as self-management, the development of

autonomy among girls, career planning skills, career maturity, and occupational knowledge increase as a result of working, negative outcomes such as decreased involvement with school, family, and peers; cynical attitudes toward work; and increased use of cigarettes and marijuana seem to outweigh the benefits. Moreover, the career development outcomes appear to wash out shortly after program completion. One of the primary criticisms that Steinberg (1982) leveled at adolescent work experience is that is focuses on basic skills to the exclusion of more needed higher level cognitive abilities.

THE MESOSYSTEM

The mesosystem represents the set of interrelations between two or more microsystems in which the developing person is an active participant (Bronfenbrenner, 1979). The mesosystem is pertinent in this study for two reasons: First, most adolescents participate in at least three, if not all four, of the microsystems identified. The interrelations among these microsystems comprise the adolescent's mesosystem. Second, the school generally, and more particularly career interventions provided by the school, may be viewed as helping students move from one microsystem to another, specifically from school to work or from one level of schooling to another level (e.g., from senior high school to college).

The preeminent mesosystem issue in the literature is the transition from school to work. This issue results from the segregation of the adolescent from the workplace, although the age segregation of adolescents contributes to other transitions, (e.g., from elementary school to junior high school to senior high school to higher education). As well as these sequential transitons, interrelationship among the three or four major microsystems in which the adolescent concurrently participates needs to be accounted for.

Many mesosystem issues that affect adolescent development were identified a decade ago (President's Science Advisory Committee, 1973). With the exception of the incorporation of work experience in the high school curriculum, they have not been extensively investigated from a career development perspective. Fretz (1981), for example, did not include any clearly mesosystem variables in his review of career interventions. Similarly, none of the 37 variables, ranging from sociological-demographic to the motivational-personal, used by Schmidt *et al.* (1978) to discriminate on the basis of post-high-school plans were mesosystem variables.

Some studies incorporate field trips, observation in the workplace, or work experience as part of a larger curriculum in career development (e.g., Mackin and Hansen, 1981). Although the effects of these studies are

generally positive, the exact effect of the mesosystem-oriented activities cannot be determined.

Cross-age teaching or helping, an intervention in psychological education (Cognetta, 1980; Enright *et al.,* 1980), is a mesosystem intervention that includes the opportunity for reflection on and discussion of the experience of moving across microsystems. This intervention has received support from other sources, notably Bronfenbrenner (1980). Combined in broader intervention programs, cross-age helping has been found to increase psychological development variables such as cognitive, moral, and ego development. More data are needed regarding its effect on career development.

The relationship of the school to the family vis-à-vis adolescent career development has not been investigated, although it is evident from a study by Howell and Frese (1982) that in the early transition to adult roles, the school may play a "pushing-out" role, while the family may be called upon to play a supportive role. Early transition to adulthood is consistently associated with lower educational expectations and lower occupational aspirations, particularly for young women (Shapiro and Crowley, 1982).

The literature on the transition from school to work, particularly in the sequential sense of leaving school and entering full-time employment, has been plentiful (e.g., see Nolfi *et al.,* 1978; Reubens, 1977). Much of the literature has investigated the transition in economic terms (see Stephenson, 1979) or has looked at transition failures in terms of unemployment (see Glaser, 1979; Roberts *et al.,* 1982). Virtually no examination has been made of the transition from school to work from the psychological perspective of the developing person moving between two microsystems, although the work experience model in career education has developed programs to facilitate this transition. In addition, Becker (1977) has reviewed the school-work transition literature from the perspective of finding career entry jobs.

The potentially fertile context that the mesosystem provides for the career development of adolescents has not been adequately researched, nor has it been the focus of well-designed interventions. Particularly lacking in research and interventions are the interrelationships between microsystems in which the adolescent concurrently participates. Bronfenbrenner (1979) has directed attention to questions of the number and variety of microsystems, particularly where interaction occurs with persons of greater maturity than the developing adolescent or with cross-subcultural contact.

THE EXOSYSTEM

Clearly, adolescents do not directly influence many career development contexts. These contexts, such as socioeconomic status,

mother's employment, personal-social network of the parents, public policy, and media, comprise the exosystem. Most of these contexts have not been fully investigated in terms of the career development of adolescents.

Social Class

Social class continues to have a dominant effect on educational and occupational aspirations and attainment. Rehberg and Hotchkiss (1979) reviewed the sociological models and studies that incorporate parental socioeconomic status among other variables affecting educational and occupational attainment of their children. Not only is parental SES a significant predictor of the child's eventual attainment, but this effect is carried to the child by significant others with whom the child associates. The ecological model allows us to consider these effects as mediated through other systems (e.g., the mesosystem and the microsystem) and possibly to propose heuristic interventions. Gottfredson's (1981) model of occupational aspiration, based on a literature review, suggests that by grades 6-8, students are already using the social class variable to circumscribe their occupational choice.

The effect of SES on vocational planning variables is less clear. Campbell and Parsons (1972) found that vocational planning variables were differentially related to social class; Jordaan and Heyde (1979) found SES to be a relatively insignificant determinant of vocational maturity in early adolescence, but a more marked one in later adolescence.

Maternal Employment

Maternal employment is another context that the developing adolescent does not influence, yet it affects sex-role perceptions and vocational aspirations. Maternal employment has more distinct outcomes for daughters than for sons, particularly in vocational aspirations of daughters of mothers who are satisfied with their work in middle and high prestige occupations (see review in Bloom-Feshbach *et al.*, 1982). Less stereotypic views of appropriate roles for men and women and less stereotypic views of occupations are held by daughters of working mothers (see reviews in Hoffman, 1979; Smith, 1981). Little work has been done on the effect of paternal employment in this area, except what has been subsumed under social class.

Media

The sex stereotyping of roles and occupations has been virtually the only way in which the effect of the media has been examined as a context in which adolescent career development occurs (see review in Roberts and Bachen, 1981). Reduced sex-role stereotyping has been the effect of a small number of experimental studies.

Family Social Network

Beyond maternal employment, the personal-social network of the family is indirectly involved in the career development of the child. Cochran and Brassard (1979) have proposed a framework to assess the personal-social network of the family on child rearing, suggesting that the network influences through cognitive and social stimulation, direct support, observational models, and opportunities for participation. This model can be directly applied to the career development of adolescents for research and intervention purposes.

Public Policy

Public policies and legislation that affect the career development of adolescents exist at the federal, state, and local levels and in other countries. The advanced economies of western Europe as well as Australia, Canada, Japan, and the United States have policies to strengthen the transition from school to work (see reviews in American Assembly, 1979; Reubens, 1977). Although employment is the primary goal of many such policies, as is the case with the United States Youth Employment and Demonstration Act of 1977, they have fostered employability, career planning, and attitudes useful in the overall career development of adolescents. Herr (1982) has assessed manpower policy in the United States as having taken on an affective quality, in addition to a concern for occupation-specific skill, in terms of an interest in personal commitment to work, positive self-concepts as workers, and employability skills.

A host of other policies and legislation—ranging from child labor laws that restrict the types of jobs some adolescents can hold as well as the amount of time they can work, to the support of career development activities by the funding of school counselor education programs—are relevant to this topic. Not the least important are school board policies that

determine the degree and focus of career development activities at the local level.

THE MACROSYSTEM

The broad cultural context that affects the variables identified at previous levels is the macrosystem. Work is deeply embedded in modern societies, and employment is viewed as a necessary social institution. The planning to enter, preparing for, and progressing through careers and alternate ways to structure time interact with the major constancies and changes in the social climate and other broad factors such as technological change. Little research has examined this context's direct relationship to adolescent career development.

Role of Women

One of the most evident and dramatic changes in the cultural fabric in recent decades is the change in attitudes about women's roles. There has been a large-scale influx of women in the labor force (Kamerman and Hayes, 1982) and concomitant increases in real family income, changes in life-style and patterns of family living. Shapiro and Crowley (1982) have documented a dramatic increase since 1968 in the proportion of young women who expect to be employed as adults and a shift in their aspirations toward higher status jobs and away from clerical and service occupations. Despite changing attitudes, occupations are still frequently segregated by sex, and women as a group are paid less than men (Scott, 1982). Scott maintains that there is a surprising continuity between the social and economic position of women at the beginning of the Industrial Revolution and the present.

Not unrelated to increased female labor force participation is the question of the relationship of work to family life. A full-time mothering role is considered especially important to the welfare of very young children (Fraiberg, 1977). And the increase in family stress and disorganization is attributed to a greater number of mothers working. These changes and constancies have enormous implications for the career development of both men and women at each of the ecological levels identified.

Work Ethic and Job Entitlement

Another important cultural variable affecting the career development of adolescents is the decrease in the belief in the work ethic. Yankelovich (1974) has reported that the numbers of adherents to this belief have been

cut in half, and Ginzberg (1982) has pointed out the widespread belief that young people have a smaller commitment to work than their parents and grandparents. As Hirsch (1977) has suggested, this nineteenth-century ethnic may be disintegrating; but its demise has not been conclusively established. A majority of Americans (64%) continue to believe that people should place more emphasis on working hard than on what gives them pleasure, although when applied to oneself, the belief in hard work compared to personal satisfaction is reduced to 38% ("Americans at Work," 1981).

Related to the decrease in the work ethic is a corresponding rise in the belief in job entitlement, that is, a belief in the individual's right to a good job reflecting his aptitudes and skills. Bell (1976) has hypothesized that a belief in rising entitlement is characteristic of societies in which rising expectations are a premise of economic growth. Actual support for this belief among young workers, both college educated and noncollege educated, has been documented by Derber (1978). Arnowitz (1973) attributes this attitude to young people who have grown up in a depression-free environment. Perhaps a prolonged period of economic contraction such as the Western industrialized economies are current experiencing will serve to reverse this belief.

Purpose of Education

The career development of adolescents occurs in the context of beliefs about the purpose of education. The popular belief is that in a democratic society, the purpose of education is for equality and the democratic transformation of society based on a virtually infinite economic growth. Not only is the premise of infinite economic expansion questioned by recent events but the beliefs about education also have been questioned. Bowles and Gintis (1976), for example, argue that the schools (and by implication career development programs) are instruments in the social reproduction of the corporate order. They and others (Bourdieu and Passeron, 1977; Jenks *et al.,* 1972) maintain that the requirements of production determine educational outcomes. Willis (1977) takes a somewhat different view in pointing out that working class adolescents, through their own activity of opposing the aims of education and its mechanism of social reproduction, constitute a working class.

Technological Change

A fourth cultural variable is the change in the kinds of work engaged in as a result of mechanical and technological innovation. The United States

has moved from the agrarian society of the 1820s, in which 70% of the labor force worked on farms, to the present economy, in which just less than 70% of the labor force is engaged in the provision of services and only 3% in farming, while the remaining 32% produce goods (Ginzberg, 1982). A corresponding expansion in the number of occupations has occurred. Accompanying these changes in the composition of the labor force is a rise in the age of entry to work as well as a desire for more education and higher levels of training. But as both Ginzberg (1982) and Leontief (1982) have argued, the microchip revolution presents a fundamentally different change in the workplace; rather than replacing human muscle, as mechanization in the past has done, the new technologies are taking over functions of the nervous system not only in production but also in the service industries.

Adolescent Work Experience

The growth of retail and service sectors of the economy has led to an increase in labor force participation by adolescents on a part-time basis. Participation in part-time employment represents a belief that such work increases responsibility and initiative. The growth in naturally occurring part-time employment has been paralleled by an increasing number of high schools arranging for and giving academic credit for work experience to supplement their in-school programs. This change in the schools' approach to work experience can be attributed to a failure of the high school's general curriculum to provide either basic education or job training. Although some experts, such as Grubb and Lazerson (1975) and O'Toole (1979), have criticized this effort to vocationalize the high school on social and historical grounds, this shift may represent some dissatisfaction with the ability of formal education, in the form of the comprehensive secondary school, to prepare young people adequately for the workplace as well as to instill commitment without demoralization.

One-Career Imperative

Sarason *et al.* (1975) have raised the issue of the one-life, one-career imperative that "people should choose a single career or that people are and in the future will be satisfied with one career" (p. 590). Sarason (1977) maintains that this belief has been implicit in many of the policy recommendations regarding education, work, and young people published in the 1970s. In contrast to this belief is the more recent phenomena of career change among people at all career and socioeconomic levels. At least some of the recent career change phenomena can be attributed to the

plethora of workers at promotion age, a projected 55% increase from 1975 to 1990 of those in the 24-44 age bracket (Freeman, 1979), which causes fierce competition for promotions and results in substantial career disappointments, which may lead to other paths.

CONCLUSION

The primary thesis of this study has been that the career development of adolescents occurs in an ecological context. Variables at each level—microsystem, mesosystem, exosystem, and macrosystem—influence and in turn are influenced by the adolescent's career development. Much of the research and intervention literature is at the ontogenic level, the level of individual personal differences, in career planning and development. While such studies are valid because they investigate the effects of contextual development in individuals, they do not elucidate the context in which development occurs. As well, this model allows for the investigation of the reciprocal nature of career development particularly in the microsystem and the mesosystem.

Many studies cited here, particularly those beyond the microsystem, lack a psychological perspective. Others have not intended to investigate career process outcomes such as career planning or decision making and have focused instead on outcomes such as status attainment or employment. This approach encourages the formulation of hypotheses resulting from a detailed analysis of each system that can account for career process outcomes. Such hypotheses and subsequent testing allow these outcomes to be examined within an ecological context using multidisciplinary methodologies, rather than studies examining a single context from one disciplinary perspective.

Implications can be drawn for intervention programs. Career interventions have most frequently been conceptualized at the ontogenic level. Interventions at both the microsystem and mesosystem levels are obvious adjuncts to traditional interventions. Of particular interest are mesosystem interventions because the career counselor is often institutionally based, that is, based in a microsystem, and can facilitate transitions between microsystems. The career counselor needs to focus attention on developmental transitions, both into the school and level of education and from the school to concurrent and sequential microsystems. In addition, the career counselor can assist in transitions among family, peer groups, and workplace. Counselors of unemployed youth can consider the transitions pertinent to this population; for example, the transition from a largely unemployed peer group and a homogeneous and sparsely

structured social network to the workplace may need to be mediated. Interventions also need to incorporate exosystem and macrosystem issues.

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