EXAMINING CAREER TRANSITIONS DURING MID-ADULTHOOD THROUGH THE

LENS OF BIOECOLOGICAL AND MICRODEVELOPMENTAL RESEARCH

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Using hierarchical multiple linear regression, this study examined the predictive relationship between micro-career transitions and career related outcomes and how those relationships were moderated by equilibration style. Participants ($n = 177$) answered an online survey which included a variety of measures for control, predictor, moderator, and outcome criterion (i.e., demographic descriptors, Instrumentality, Openness, Job Insecurity, Social Support Satisfaction, Microtransitions, Equilibration Style, Job Satisfaction, Job Burnout, Life Dissatisfaction, and Career Optimism).

Research questions addressed the nature of micro-career transitions (e.g., frequencies, average stress ratings, category types), their predictive relationship with job and career outcomes, and the moderating role of Identity Styles on that relationship. Micro-career transitions were described according to responses for the research sample ($n = 638$). Significant effects were discovered between microtransitions and career outcomes ($p < .05$ and $.01$). Equilibration styles were also established as having a moderating effect on the predictive relationship between microtransitions and career outcomes ($p < .05$ and $.01$). Interaction terms were decomposed to examine the direction of significant moderating effects. In all cases where interaction terms were significant, moderators enhanced the negative predictive relationship between microtransitions and career outcomes.

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CHAPTER 1

INTRODUCTION

A Micro Career Transition Story

John, Lisa, and Bill work for a company that makes semiconductors used in a variety of electronic devices sold to consumers and commercial businesses. Although financial performance has been strong, the organization has announced potential restructuring to become leaner and more productive in a market that is becoming increasingly competitive. Their boss, Deborah, has announced that she will be leaving and going to work for a different company in three weeks. Raul is a single Hispanic male in his early 40s who has worked for Deborah for 18 years and built a strong relationship with her. He is in the process of purchasing a new, larger home to accommodate his mother-in-law who was recently widowed, and he is planning to ask for a raise and title promotion during his upcoming annual review. Lisa is a single, black female in her mid thirties who has been on the job for 6 years. She generally keeps her personal life private and does not discuss it much at work, preferring to demonstrate her value through performance and competence on the job. Although she has a small circle of close friends outside of work, the majority of her family live in another state. Deborah has served as a good female mentor for Lisa over the last couple of years. Bill is a married, white male in his late 20's who has only been on the job for one year. He has had a few conflicts with Deborah and is somewhat concerned about his upcoming annual evaluation. His wife is pregnant with their first child and both of them are still paying off college loans.

The individuals described in the above vignette possess different personality characteristics, work values, career goals, and beliefs about themselves. Recognizing the complex and dynamic interaction between the context of their personal lives, broader

organizational and industry circumstances, and individual frameworks for their careers and work relationships, it is likely that each person would react differently to their boss's announcement. What meaning might each of these people derive from this event about themselves, their jobs, their careers, their personal relationships? What decisions or actions might result? How might responses to the current change of losing and gaining a boss impact future decisions and expectations about career?

The Changing World of Work

Much of the recent research on career development and workplace stress and coping has examined responses to major shifts brought about by organizational changes such as relocation or job change (Whelan-Berry, Gordon, & Hinings, 2003; Moyle & Parkes, 1999; Munton & West, 1995). Interest in responses to organizational transitions has increased because of the rapid market changes brought on by globalization and technology growth trends (Levi, 2001; Cartwright & Panchal, 2001; Breu & Benwell, 1999, Sterns & Huyck, 2001). Such rapid changes negatively impact managers' abilities to effectively support their employees and simultaneously result in increased work demands across organizations. Both of these factors are positively correlated with increased stress levels among employees (Moyle & Parkes, 1999) and poor insight regarding career development. Our lack of understanding concerning ways to effectively influence coping and stress in the workplace and adapt career counseling to address the growing phenomenon of organizational turbulence suggest the need for new exploration of these subjects.

Changes in the nature of the world of work mean that most people will not likely be able to remain in the same job, company or, possibly, career for long durations. Currently,

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organizations are experiencing unprecedented levels of turbulence, which emphasizes the reality and inevitability of change and transition in the workplace (Breu & Benwell, 1999). Mark Savickas (2005) draws another conclusion from that reality, understanding people's need to have a sense of control or predictability in their lives, saying "new technology, globalization, and job redesign require workers to more actively construct their careers." What does this mean except that individuals in a less stable environment will actively seek to establish abilities for adapting to change and stabilize their development as much as possible? Just as organizations in competitive post-industrial economies have had to learn to be more flexible and responsive to the evolving market place even to the point of redefining their identities, workers in those organizations have also had to adapt and expect change to be the norm instead of the exception in order to survive and advance their careers.

Hall (as cited in Herr, Stanley, & Cramer, 1996) can be credited for the earliest, most straight forward address regarding the changing work environment, highlighting the need for self-management due to turbulence in the world of work. He articulated seven guidelines concerning career development based on his review of the state of career development in organizations: (1) In today's chaotic job environment, organizations cannot outline progressively ordered career paths for their employees and should not waste effort trying to do so; (2) Of a necessity, responsibility for about 80 % of career development belongs to the employee; (3) employees must identify and develop new career competencies instead of focusing on skills specific to a job. A component of the new competencies must be "meta-skills," the skill of acquiring new skills; (4) organizations should encourage employees' efforts to assume responsibility for their careers, focusing organizational attention on broader organizational objectives; (5) organizations should provide information and support for employees who pursue

career development; (6) wide degrees of freedom of movement for employees should be allowed for in the organizational structure; and (7) career development support should be included within a strategic human resource management process that grows out of the larger strategies and priorities of the organization (pp. 348 -349).

The increasing demand of constant change has heightened workers' stress reactions, resulting in severe psychological turmoil for some. In their discussion of the modern work ethic, McCortney and Engels (2003) referred to the emerging data associated with unemployment, which includes reports of increased suicide rates, substance abuse and addiction, homelessness, violence, and other mental health problems. Another outcome of having to adapt to the constant changes that occur in today's work environment is job burnout (Angerer, 2003). As workers are overloaded in job cultures that penalize push-back or complaints, they increasingly experience feelings of exhaustion, cynicism, and inefficacy. Although work continues to contribute to people's identity development across the lifespan, the Western world has seen a steady decline in its traditional work-ethic and organizational loyalty. The demands for increased productivity are rising while resources seem to be diminishing, resulting in personal sacrifices in other domains by workers that they perceive as a necessary burden in order to maintain employment. Organizations seem to have diminished in loyalty to their employees as well (e.g., Jack Welch's approach of firing the bottom 20% of employees), all of which points to a declining trend in reciprocal loyalty between workers and their employers as a characteristic shift in the modern workplace (Hall & Mirvis, 1996).

A key aspect of understanding how career management manifests itself in today's turbulent world of work requires a more accurate assessment of career transition and its meaning to workers. Traditional views of career transition have focused on career choice and job change

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or, in extreme circumstances, career change. Whereas workers have been historically able to have a clearer understanding of the direction of their career development and accurately anticipate the impact of change, today's workers struggle to draw linear connections between change in their environments and change in their careers. Heightened awareness of external forces and their negative influence on potential change (e.g., downsizing, organizational restructuring) or positive influence (e.g., cross training for advancement) have likely raised workers' sensitivity to any changes in their environment that might have an impact on their job or career. A difficulty for many workers arises from uncertainty about the potential for direct and indirect impact various changes may have on them. Such uncertainty and a lack of criteria for evaluating the potential impact of change often results in anxiety as they constantly adapt to new circumstances. Utilizing historical paradigms of change and its impact on career can result in significant stress reactions that are disproportionate to actual events in some cases. Alternatively, when a market or organizational environment is prone to higher turbulence, assumptions about the potential meaning of environmental change may be accurate but workers may not be well equipped to adapt or cope with their stress reactions.

Traditional Approaches to Career Transition

Developmental Models

Although not all career theories incorporate a developmental perspective (e.g., Holland's person-environment fit), several have addressed important developmental factors, particularly as they relate to career choice. For example, Gottfredson (1981, 1996, 2002) has thoroughly articulated how social class, intelligence, and gender affect children's and adolescents' progression toward career choice in her theory of circumscription, compromise, and self-

creation. Her theory addresses the development of career concepts, emphasizing social and personal characteristics that impact how people choose to express themselves through work. Gottfredson suggests that individuals go through a process of rejecting and accepting career choices based upon their evaluation of compatibility between occupational stereotypes and concepts of self. The process ultimately yields a compromise between aspects of a job that fit or do not fit with an individual's work identity. Like Gottfredson, Roe (1957; Roe & Lunneborg, 1990) addresses the development of vocationally related personality characteristics but puts less emphasis on the role of broader social influences, focusing more on the impact of early parent-child interactions instead. Similar to most of the historical contributions to career theory, both Roe and Gottfredson focus their attention on early formation and career choice and do not directly incorporate change across the lifespan.

Heppner (2003) has addressed the issue of career transition directly, focusing on personal traits related to successful growth. Specifically, she has examined variance in psychological resources during career change as they relate to personality factors. She defines career transition in a range from task change within the same job, actual change in positions, to occupational change in which case the individual shifts into a new career entirely (Heppner, Multon, & Johnston, 1994; Heppner, 1998). She also asserts that adaptation to any given transition depends on individual perceptions of the transition (i.e., anticipated, timing, permanence), the pre- and post-change context, including social support, and individual personality.

To aid in the analysis of psychological resources related to career transition Heppner developed the Career Transitions Inventory which measures constructs of readiness, confidence, personal control, support, and independence (Heppner et al., 1994; Heppner, 1998). In addition to examining the relationship between levels of psychological resources in these domains and

successful career transitions she has related these variables to personality traits (Heppner, Fuller & Multon, 1998).

Super's theory of career development provides the most comprehensive examination of career change over the course of the lifespan (Herr & Cramer, 1996; Dagler & Salter, 2003; Flores, Scott, Wang, Yakushko, et al., 2002; Savickas, 2002; Whiston & Brecheisen, 2002). His theory originally used a career stages approach to career change organized as follows:

Stage I: Exploration and trial (initial job experiences, skills training, performance feedback, initial goal setting).

Stage II: Establishment and advancement (developing expertise, strategic career planning, growing through success and failures, moving up the career ladder).

Stage III: Midcareer

A. Growth (reevaluating goals, dealing with concerns about stagnation and other midlife crises, seeking new experiences).

B. Maintenance (seeking job security and avoiding change, recognizing accomplishments, mentoring others, demonstrating pride and commitment in relation to the company).

C. Decline (feeling insecurities, feeling less value to the organization, sensing that one is "on the way out," dealing with physical aging, exploring early retirement options)

Stage IV: Disengagement (preparing for retirement, exploring new interests outside of work, transitioning into acceptance of reduced role and inevitability of change).

Similarly, a stage model has been proposed by Schein (1978) dividing career development into four categories: entry, socialization, midcareer, and late career. Thompson, Baker, and Smallwood (1978) also proposed a stage model to illustrate individuals' evolving approach to work, but their description focuses more on how one's role changes within an organization over time moving from entry level and skill acquisition to leading the organization, providing direction for the organization and teaching skills to others. A similar emphasis on growth through organizational level has been proposed by Charan, Drotter, and Noel (2001).

Due to the influence of the broader lifespan developmental themes of Super's theory, many authors have elaborated and revised various aspects of the theory to address transition throughout career without limiting their focus to career choices. For example, Power and Rothausen (2003) revised Super's concept of the maintenance stage worker with their work-oriented midcareer development model. Their modification is more attuned to the turbulent work environment and consistent with Hall's (1986) description of self-managed career development. The model suggests that workers think of their jobs in terms of skill definitions instead of a place in the organizational structure. Specifically, they propose that mid-career workers identify their work through a paradigm of career direction or trajectory. Power and Rothausen defined three levels of development in becoming more adaptive and self-directed in one's career. In the initial stage, workers define work in terms of their current job. At the second level, workers strive to maintain what they have learned as they move within or outside of their present organization. The final stage of development is the work growth level. Here, the focus of the mid-adult worker should be to evolve in response and anticipation of new directions in career.

Although some of the career models address the demand of rapid change on workers' concepts of career development, they perpetuate a linear, perspective of stage-like progression that does not easily accommodate intraindividual adaptation or reflect the impact of identity or contextual differences. As with any movement toward change within scientific focus, there has also been some resistance and, appropriately, calls for more support from actual research (Swanson, 2003). In particular, emerging theories have been questioned about their application to nonprofessional workers, ethnic minorities, and women (Betz, 2003; Swanson, 2003). Despite such criticisms, the necessity for a new focus on career that acknowledges a different view of

career identity development is obvious to many, particularly those who practice career counseling outside of educational settings.

Theoretical Underpinnings of Traditional Developmental Models

Traditional career development models have utilized linear projections and nomothetic stages of growth (Hudson, 1996; Eurich, 1981). Such models function according to a normative and prescriptive description of how life should happen and include a social timetable of predictable outcomes (e.g., one goes to college, graduates, gets a job, gets married, has children, and so on). The linear view also shapes personal destiny with a cultural design that requires a socially cohesive and homogenous culture, an issue that has received significant attention in the career literature during the last several years (Whiston &Bouwkamp, 2003; Cook, Heppner, and O'Brien, 2002; Jackson and Nutini, 2002; Farmer & Rush, 2003; Savickas, 2003; Weinrach, 2003; Whiston, 2003). Implicit in this viewpoint is an assumption of the simple equation that doing what one is supposed to do in one's career will create success and facilitate a predictive life course. Here, the focus is on the end and not the means. Also, implicit in the linear viewpoint is the notion that control over change is possible. Change that benefits the plan is positive and change that impairs its unfolding is negative. Such expectations are highly unrealistic, however, with the new world of work as context where unexpected change is the norm (Moen & Roehling, 2005). Workers who subscribe to such a paradigm of career development may find themselves in a constant double bind, believing they should be able to prevent or control change while facing frequent fluctuations beyond their ability to anticipate or influence.

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Emerging Challenges in Career Theory

Historically and presently, the majority of career research has focused on studies of career decision making, understanding influences and explaining outcomes of career choices with assessment tools and interventions primarily designed for use in primary and secondary educational settings (Dagler & Salter, 2003; Flores, Scott, Wang, Yakushko, et al., 2002; Whiston & Brecheisen, 2002). Similarly, very little research has focused on the process of career counseling; there are few descriptions of treatment protocols (Niles, 2003; Whiston, 2003). Where there have been descriptions of processes, authors have not provided enough detail to facilitate an understanding of how interventions lead to specific outcomes (Bronfenbrenner, 2005b). Lack of clarity has also limited the potential for replication studies incorporating the same intervention processes. Without formative process evaluation criteria, it is nearly impossible to gauge the quality of intervention process. To this issue, many authors have pointed out the critical need for process research (Bronfenbrenner, 2005b; Heppner & Heppner, 2003; Niles, 2003; Savickas, 2003; Tang, 2003; Walsh, 2003; Whiston, 2003) and see its absence as one of the chief contributors to the gap between research and practice. In addition, most of the research and practice discussions continue to focus on college educated, members of the majority culture who have greater freedom in their choices about career (Farmer & Rush, 2003; Whiston, 2003; Sterns and Huyck, 2001).

Part of the call for change in research and practice includes the need to reshape social perceptions of career counseling, expanding its domain further. Herr (2003) suggested efforts to establish career counseling as a meaningful influence in the role of human capital development. Further, he emphasized the need for a broader range of career counseling services that encompasses traditional career choice guidance as well as career coaching at the other end of the

spectrum. Similar suggestions have been made about the need to integrate career development work with organizational development (Russell & Visser, 2005). In the context of career intervention, career counselors should be prepared to focus on helping workers reduce stress and effectively deal with workplace anger, job burnout, employee disengagement, mental health issues, poor work-life balance, and interpersonal conflicts. (Angerer, 2003; Broeck, Vansteenkiste, Witte, & Lens, 2008; Farmer & Rush, 2003; Sonnenberg & Chen, 2003).

Unlike professionals in college and high-school settings, career counselors working in organizations are required to address issues that extend beyond traditional career choice. To function successfully, they must be knowledgeable about career development as well as organizational change and how the two subjects intersect with occupational stress management (Herr & Cramer, 1996). To help career counseling efforts have more of a meaningful impact on the modern work world, career professionals have called for a shift in research to engage the issues of turbulence and stress. One example of such a shift is S. S. Hansen's (2003) "integrative life planning" approach to career interventions, which includes considerations of family and spirituality across the boundaries of work and life. Niles (2003) suggests that career counselors be prepared to focus on career in relation to the individual's role- and life-development schema to address the integration between life and work as well. The need for such holistic approaches is reflected in a common complaint among employees in organizations who are trying to advance their careers but have difficulty negotiating satisfactory work-life balance.

It has been hypothesized that life outside of the workplace will increase as a focus of people's identity development. Following with this potential, it may be that individuals' wellbeing will reflect their ability to integrate work-life balance (Hartung, 2002). If this is true, individuals who adopt a work-play paradigm would have enhanced conceptualization of careers.

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Savickas (2005) made similar observations suggesting that, in the future, leisure time may serve as a framework of people's character and identity, enabling them to express values less supported within their careers. Career counselors who want to best serve their clients may need to adopt a perspective of human development that includes an understanding of the adaptive, "self-enhancing" role of play in combination with work. Such a holistic perspective is consistent with a broader ecological viewpoint that would integrate our understanding of individuals' experiences across the contextual systems of their lives (Bronfenbrenner, 1977).

A significant shift has occurred in career literature, questioning logical positivism and embracing a more post-modernistic view of theory and practice. One could say that this shift has been brewing for some time but has been limited because of our adherence to research methodologies that are grounded in logical positivism. Even where people recognize post-modern dynamics, they have struggled to develop commensurate research strategies for producing quantitative evidence that supports their observations (Brown, 2002; Sterns & Huyck, 2001). It seems likely that altering our epistemology to reflect post-modern paradigms may require some innovation and compromise.

The Influence of Constructivism and Contextualism

Just as post-modern thinking has shaped changes in other areas of social and scientific research, career theory is evolving in a similar direction as evidenced by the explosion of interest in applying constructivistic principles to career that has occurred in the last few years (Guindon & Richmond, 2005). Donald E. Super's life-space/life-span theory of vocational development has evolved several times since its original 1953 description, with its most recent update and renaming as career construction theory conducted by Mark Savickas (2002). Originally, it was

differentiated from occupational theories because Super's theory focused on the unfolding of a career over the course of a person's life, taking a longitudinal examination of career as opposed to matching individual traits to occupation at a single point in time. Instead of person-environment fit that is described in Holland's (1997) theory, Super advocated person-environment interaction. In the most recent update, modifications were made in the theory to incorporate constructivistic and contextual developmental perspectives as opposed to the original organismic definition of career development. Concordantly, current descriptions of the theory reflect adaptation to environment as opposed to change derived from maturation of the individual alone. The constructivistic perspective incorporates the notion that people actively construct their career development, and the perspective of contextualism conveys that people are embedded in social and historical context. Career construction theory combines constructivism and contextualism to show how people's construction of identity and purpose in career incorporates environmental influences and people's choices about how to adapt and function within the social context as well as acknowledging their potential for influencing that context.

The life-space component of Super's theory incorporates people's experience of context in the form of social roles and how those roles reciprocally influence one another to affect identity. Social roles can be defined as functional capacities within society upon which people place importance for defining meaning in their lives. The structure of the life-space component distinguishes primary from secondary roles to show how individuals prioritize those functional aspects of their identity that they choose to define themselves within their life context. As people age their context changes as well and may require them to shift their prioritization of roles. Although all of an individual's social roles may be important to them, one's primary roles are central to defining identity and are likely to receive most of a person's time and energy in efforts

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to maintain one's social identity.

Whereas a person's social roles are more of a reflection of context in one's life, Super's self-concept addresses the more internally constructed part of an individual's identity. In fact, Super (1990) suggested that the notion of self-concept, as it has been used in this theory, probably should have been termed personal construct and interpreted in parallel to Kelly's (1955) definition of personal constructs. A person's self-concept develops from their inherited aptitudes, physical attributes, imitation of role models, and reinforcement from admired others (Savickas, 2002). As children grow, they imitate various role models, usually beginning with parents and siblings. Imitated behaviors vary in their relative ease according to individuals' natural and acquired abilities, and people typically choose to repeat behaviors at which they are more successful and avoid or minimize use of behaviors that are more challenging for them. Reinforcement of imitated behaviors also varies and is more powerful if it comes from people that an individual looks up to (e.g., parents, teachers, childhood heroes, etc.). Sets of behaviors associated with the person's self concept may remain fairly consistent across situations (e.g., being generally ethical or honest across situations) or may alter depending on the context in which the behaviors are expressed (e.g., rule following at home and being more rebellious around friends at school). As people pass through adolescence, they begin to integrate the various sets of behaviors that make up their self-concept and form a more tangible identity.

Extending Postmodern Influences in Career by
Incorporating Lifespan Development Theory

Evolving Perspectives of Human Development

Adult midlife is a broad period of development for human beings that can be characterized in a variety of ways. Theorists have historically defined midlife development in

linear fashion and stage-like progression (Schein, 1971; Super, 1957). It has also been described as a period of crisis (Dorner, Mickler, & Staudinger, 2005; Levinson, Darrow, Klein, Levinson, & McKee, 1978; Sterns & Huyck, 2001). The notion of crisis in midlife originally developed from practitioners' observations of people who came into their offices for therapy demonstrating some concerns that relate to a difficult shift (e.g., concerns about death, losing virility, attractiveness, generativity, meaningfulness). Likewise there seems to have been a cultural phenomenon of being "over the hill" after 40 which suggests perceptions of loss, no longer being in one's prime, we use the color black to celebrate 40th birthdays, which relates to mortality the inevitability of death. An alternative to viewing midlife as a time of internal reflection and crisis contemplation of life's direction is the view that it can be a time of psychosocial self-actualization (Dorner, Mickler, & Staudinger, 2005)**.** Instead of questioning one's place and future in the face of mortality, people may reflect on their history and recognize their competence and experience as strengthening factors that encourage them move forward with new confidence. It has also been argued that the construct of midlife is a Western cultural invention (Menon and Shweder, 1998 in Dorner, Mickler, & Staudinger, 2005) and not a "true" normative experience in the lives of all human adults. Even if this claim is true, however, it remains a relevant possibility for adults in the United States that they will encounter these two perspectives of "turning inward or turning outward" albeit with a high degree of variability in experiences across the population (Dorner, Mickler, & Staudinger, 2005).

As psychological theories of personality and practice and treatment intervention developed to incorporate the notions of social influence social learning, and "mental models" or cognitive frameworks, these concepts were also applied to studies of human development. Stage-like models have been criticized for several decades in the literature as more emphasis was

placed on the internal world of individuals and their individual development (e.g., personality, self-concept, self-efficacy, gender, age) and researchers began to recognize the diversity of the developmental life course (Sterns & Huyck, 2001). Advanced theories of human development incorporate a comprehensive range of factors when considering how a person changes, acknowledging normative age related development (e.g., biological changes), non normative events and differences that reflect a dynamic interaction between person and environment (e.g., culture, social systems) including the impact of time (e.g., history, formative experiences, cohort) and anticipation of the future (P. Baltes, Reese, & Lipsitt, 1980, Sterns & Huyck, 2001).

Due to the complexity involved in examining such a broad range of influences on change, it is no wonder that we lack many examples of research that apply comprehensive, integrative approaches. This is largely due to a lack of integrated nonlinear models of development. Models that claim to be diverse in their treatment of development actually have limited samples (Sterns & Huyck, 2001). To combat this problem, H. Sterns (1986, in Sterns & Huyck, 2001) has developed a model that allows for multiple transitions throughout adult development. In an effort to bring some organization to our application of more advanced "developmental-contextual" theories, Sterns advocates for consideration of common themes among those models that he has identified: (1) the dynamic nature of midlife (e.g., cyclical, contextual); (2) the role of gender (e.g., socialization and sex-role differences); (3) further differentiation of midlife (i.e., phases within the middle adult years); (4) signals from normative biological changes (i.e., how we respond to our own biological change and how others' perceive us as changing); (5) cognitive and emotional change (e.g., selection optimization compromise, further individuation); (6) altered social roles (e.g., teaching/mentoring vs. learning); and (7) variation across social status, cohort, culture, history, and individual (non-normative) differences.

Borrowing from Kuhn's (1996) perspective of how science evolves and develops, we can see that in order to achieve a meaningful change in the way we view adult development and career, the upward bounds of theory must be stretched beyond their current capacity by taking on bold paradigm shifts. There are a number of challenges to such efforts, namely with regard to our use of language as we seek to share ideas amongst ourselves and throughout the industry, whether in academic or practice areas. Forging ahead in the area of scientific language transformation requires a careful yet purposeful use of features, examples, and metaphor to establish realignment. In this effort, we must not lose sight of how the process of introduction reshapes how we think about the words and metaphors used to shape understanding about new ideas. This need is very much connected to Kuhn's notion of incommensurability. Of course, these ideas also relate to Kuhn's establishment of what revolution in science actually is and that "One cannot get from the old to the new simply by an addition to what was already known. Nor can one quite describe the new in the vocabulary of the old or vice versa (p. 15)." To that end, psychologists may borrow from other fields of study to see how individuals are addressing scientific evolution in different areas of specialization in order to accomplish rapid growth and identify innovative solutions through the synergy of their shared ideas.

An example of such an approach is to utilize the perception of an organization as a whole organism in the process of development and borrow from life span theories in psychology to study that process. Due to principles of incommensurability, direct parallels may not be utilized. Instead, the goal should be to take advantage of the recent evolution of thinking on the subject of developmental models and discern what lessons can be learned that would propel our understanding of career transitions past its present mire and into a true state of growth.

Surprisingly, adapting this perspective to organizational change and development is not

too much of a stretch. For example, much of the research on organizational change and transition focuses on minimizing its impact on organizational processes and the flow of business (Whelan-Berry et al., 2003). That is to say, when change is planned, organizations attempt to keep its impact limited to the targeted areas and, when it is unplanned, responses are limited to dealing with only those issues that are considered crucial to business functioning. Similarly, models of organizational growth are typically delineated in linear fashion, where the first stage has to be completed and so on until the organization reaches maturity. Likewise, the same influence of cultural design is active for the whole organization as well as its subdivisions, even down to the level of the individual (Trice & Beyer, 1993). One might ask why a linear perspective of growth and change is problematic when, after all, cultural prescriptions of change are our way of creating meaning and order in our environments. This is of a certainty, but it does not mean that adherence to linear models is the *best* method for creating meaning and order in the workplace. Further, expected courses of change are increasingly less likely to take place, even at the organizational level, in today's turbulent environment.

Advances in psychologists' understanding of growth and change have led them to see that controlling change is rarely possible and minimizing its impact can be just as difficult of a challenge. This understanding has not only come from studies of development but research in therapy, cycles of addiction, and family systems models. Through comparison and study of phenomena in these and other areas, psychologists have come to see that change is a natural and inevitable part of life and that individuals, families, and cultures are constantly engaging in cycles of response and adaptation to both random and predictable events (Hudson, 1999). Hudson has proposed one of the most coherent descriptions of cyclical growth and adaptation in his cycle of renewal model.

Consider the differences between the linear theories discussed above and Hudson's cyclical viewpoint. Cyclical constructs are patterns that repeat but may represent different meaning throughout the lifespan (Nermiroff & Colarusso, 1988). One is not necessarily superior to the others but just different from them. The cyclical perspective describes life as a "complex, pluralistic, multivariate flow, with ongoing cycles in nature, cultures, and people" (Hudson, 1999 p.43). Larger social, political, and environmental systems move around us in unpredictable fashion regardless of our attempts to influence them. Even family systems, though easily within reach of the individuals embedded within them, are impossible to control. In Hudson's model, growth is actually adaptation to change, not avoidance, minimization, or control of change. It illustrates how some themes are repeated throughout the adult years (e.g., love, achievement, and search for meaning/identity). Hudson demonstrates how these themes are rearranged as adults experience change from external forces, maturation, and the internal dynamics of human development. The cyclical perspective recognizes that conflict and loss are just as much a part of everyday life as peace and attainment. Lastly, it portrays our human systems as "modular, flexible, conflictual, interactive, and resilient, allowing for continuous adaptations" (p. 44).

An Ecological View of Career Development:
Applying Bronfenbrenner's Model

Incorporating advanced theories of lifespan development that take on post-modern perspectives of theory and research seems a natural part of the science's evolution. Integration of post-modern perspectives has occurred somewhat differently in life-span development theories than it has in career theory. In particular, the unique interpretation of contextualism in lifespan development theory has the potential to add additional value to our study of career in the lives of human beings.

One of the best examples of a comprehensive contextual approach to life-span

development is Urie Bronfenbrenner's (1977) bioecological theory. In his most recent update,

Urie Bronfenbrenner (2005a) has drawn a comprehensive map of biopsychosocial change,

ranging from micro to macro influences and dynamics. The model is useful in its elaboration of

Bronfenbrenner's original (1977) description of bioecological development, summarizing the

progress of nearly 30 years of research since the original publication of his ideas. At its

foundation, bioecological development acknowledges that all levels of human experience are

dynamically interrelated (i.e., micro, meso, exo, and macro systems), where the most basic level

incorporates the individual and immediate experience and the broadest level represents the

superordinate systems of social structure and events. The current model (Lerner, 2005) is made

up of four interrelated components:

> (a) the developmental process, involving the fused and dynamic relation of the individual
> and the context; (b) the person, with his or her individual repertoire of biological,
> cognitive, emotional, and behavioral characteristics; (c) the context of human
> development, conceptualized as the nested levels, or systems, of the ecology of human
> development as he has depicted (Bronfenbrenner, 1977, 1979); and (d) time,
> conceptualized as involving the multiple dimensions of temporality – for example,
> ontogenetic time, family time, and historical time – constituting the chronosystem that
> moderates change across the life course. (e.g., Elder, 1998). (p. xv)

The model of process-person-context-time (PPCT) describes an integrated system of

development and is meant to serve as a framework for research. Bronfenbrenner believes that

studies lacking consideration of these components and their interaction cannot provide an

adequate description of human development.

Bronfenbrenner and Morris (1998), suggest that process:

Encompasses particular forms of interaction between organism and environment, called
proximal processes, that operate over time and are posited as the primary mechanisms
producing human development. However, the power of such processes to influence
development is presumed and shown, to vary substantially as a function of the
characteristics of the developing Person, of the immediate and more remote

environmental Contexts, and the Time periods, in which the proximal processes take place. (p. 994)

Regarding person, there are three primary characteristics that are likely to have persistent influence on the direction and power of proximal processes across the lifespan (Bronfenbrenner & Morris, 1998). Individual dispositions (e.g., personality traits, values, self constructs) can initiate proximal processes within a specific developmental domain and maintain their operation with or without reinforcement or support from the broader system. Secondly, biological resources (i.e., knowledge, skills, abilities) are typically necessary for proximal processes to function at a specific stage of development. Lastly, the social environment can nurture or hinder the function of proximal processes in different ways at different times. As with the rest of the model, each characteristic interacts with the others to create individual effects of proximal processes at a given point in time or patterns that may be recycled throughout the life course. Bronfenbrenner views the person at the microdevelopmental level to be the core of the overarching ecology because each individual is "fused" with context, time, and process. The characteristics of people who are close to and interact with an individual on a consistent basis are also included in the ecology of the micro system because of their influence at that basic level. Reflecting on the progress of research since the inception of his theory, Bronfenbrenner expressed disappointment in the lack of studies illustrating the point of interaction between person and process, specifically with regard to the development of person. Because the nature of these interactions, by definition, requires examination of the individual and repetitive cycles in the person's immediate experience, it has been challenging for researchers to devise strategies for capturing such patterns. It also follows that this gap is another result of adherence to methodology grounded in logical positivism.

Microdevelopmental Research

In their exploration of dynamic processes in cognitive learning, Yan and Fischer (2002) demonstrated that researchers do not have to limit their examinations of variability in its traditional forms. That is to say, one can investigate variability across multiple dynamics and sequences as opposed to simply analyzing variance from group norms or averages. One can hear echos of Bronfenbrenner (1977, 2005a) in this statement from Yan and Fischer (2002):

> People's activities vary widely in content and complexity, not only across longterm developmental epochs but also from moment to moment. Analysis of the pervasive variability in people's activities potentially provides new data for analyzing processes of change in learning and development. Traditional static concepts such as stage and intelligence have proven inadequate for dealing with the important, far-reaching variability that researchers are uncovering in people's actions and thoughts. (p. 142)

Applying emerging principles of microgenesis, they approached their study of adult learning at the microdevelopmental level instead of long-term, macrodevelopment. This was primarily accomplished by choosing to study ability, developmental stage (of learning), and developmental sequence as variable characteristics rather than "static entities." Following, they utilized "dynamic systems tools" to examine how "dynamic cognitive systems produce variations in activity, ability, level, and sequence." The goal of this method was to integrate non-linear dynamics with developmental construction to "describe variability in the organization and growth of human activities in context." Again, this approach is highly reflective of Bronfenbrenner's (1977, 2005a) approach to studying development as it analyzes the system of interaction as opposed to the linear relationship between one variable and another to understand that:

> a dynamic system in which a person's activities in context vary and grow from the mutual influence of multiple, specified factors interacting over time. That is, in the dynamic system of cognitive development: (a) multiple factors of differing importance contribute to cognitive growth; (b) these factors constantly interact with each other in complex ways, directly and indirectly; (c) the interactions take place in multiple contexts,

from immediate to historic-cultural, and (d) these interactions in context unfold over multiple time scales, from microscopic to macroscopic. These four key aspects of a dynamic system – multiple factors, complex interactions, multilevel contexts, and multilevel time scales – work together to generate changes that are complex, emergent, and self-organized. Developmental variability in activity, including stability as its special case, is the direct manifestation and production of the underlying dynamic system. Consequently variation in activity is an important resource for revealing fundamental dynamic mechanisms through analysis of patterns in the variability. (Yan & Fischer, 2002 p. 143)

The microdevelopmental approach acknowledges covert dynamic processes as the driving forces for development and argues that observations of recognizable order or change are representations of those processes at a given point in time. Instead of examining variation in linear relation to a static variable, microdevelopmental methodology studies dynamic variation, which has the following characteristics: (1) it is pervasive as opposed to random or abnormal, meaning that what we regard as stability is actually a manifestation of order in a system as it seeks equilibrium or approaches an attractor; (2) dynamic variation is real change and not random error representing dynamic influences such as emotional regulation, social referencing, processing reinforcement, and cognitive appraisal; and (3) it is important and should be treated as the primary lens through which we examine development, including what we call normative age changes. "Dynamic variation should be the starting point, primary data, and central phenomenon of dynamic inquiry, not a derivative to be explained far down the line by static concepts…" (p. 145).

In their examination of cognitive learning from a microdevelopmental approach, Yan and Fischer (2002) found specific patterns in dynamic variation that explained intraindividual differences in skill development. These included variation in range and performance relative to upper and lower attractors, variation in patterns due to differences of experience and expertise, and the role of asynchrony in learning a new task. Patterns of intraindividual change were not

held to static variables but, instead, examined across immediate processing at the micro-time level. Their study highlights the relevance and more descriptive understanding of change processes one can gain by examining phenomena at the microdevelopmental level and reflects Bronfenbrenner's (2005a) perspective of "fusion" between the person and process.

Integrating Ecological, Cyclical, and Microdevelopmental Approaches to the Study of Career

The Study of Microtransitions

Expanding on Hudson's (1999) model, one can see potential implications for training on the individual level of adjustment and coping as well as implications for changes in culture due to a paradigm shift that embraces change. For example, by shifting individuals' and organizations' perspectives away from a focus on control of transitions, the distressing effects of transitions are minimized because they fit into people's sets of expectations (i.e., person). By incorporating an attitude that embraces change, transitions can be redefined as a time to hold on to what works in the new situation, let go of behaviors and processes that don't work, take on new learning and exploration of options, and move on to new commitments in one's various roles (i.e., process). The cyclical perspective also allows for an integrative, introspective, and mindful approach to appraising stressful transitions (i.e., process). Such a shift allows individuals to engage in self-evaluations that are less threatening and dichotomized (e.g., good/bad self, competent/incompetent self) so that specific behaviors, thoughts, feelings, and attitudes can be molded into the best fit for that person in light of environmental change. Lastly, a cyclical model of development requires that an individual or system recognize how patterns of change and resistance to change may be repeating themselves in different ways as they mature and experience their work with different sets of internal and external forces (i.e., *context*). Examining

these patterns can allow individuals and organizations to minimize repetition of mistakes, maximize opportunities for growth, and have a greater sense of direction in the face of a rapidly changing work environment.

Similarly, applications from Bronfenbrenner's (2005a) view of bioecological development can be applied to the study of career. Interpreting the current study of career transitions through Bronfenbrenner's (2005a) PPCT model creates the following ecology of career development: (a) the process is the interaction of individuals with microtransitions in the workplace as they attempt to adapt, attempting to move their careers in an acceptable direction; (b) the person involves the individual characteristics and other aspects of the person's personality and related emotional responsiveness; (c) the context of their career (e.g., job, tenure, industry, stable or unstable market, secure or unsecure position) and (d) microtime of transitions affected by turbulence building into a collection of events, ontogenetic time, and changes in expectations and perceptions of career related events at the macro level (e.g., social perceptions of retirement age).

Redefining the meaning of career transition in order to fit the context of our turbulent world of work requires examination of the definition's purpose. Traditional definitions have served to mark an event or choice that leads a person to change jobs or careers. Because such events are stressful and can create the need for psychological intervention (e.g., emotional support, professional guidance), the function of our definition has been to help us recognize the impact of career transitions on people's lives and generate a construct from which to research and communicate about how to help people cope with the challenges and stress of career transition. Although the purpose of marking a point of change that requires attention remains consistent, the parameters which define how we mark career transitions need to be broadened if

we are to serve today's working population. Likewise, the purpose of outlining a construct for psychological study and conceptualization still exists as well. To examine the phenomenon of career transition, we can gain more insight into the processes that define similarities and differences among middle adults by examining change at the microdevelopmental level.

Although it is commonly acknowledged that changing jobs is a stressful experience, people's definition of job change tends to be narrow in focus (e.g., new organization, promotion, demotion, new career, layoff). People experience change in the workplace all the time on a smaller scale than what has been traditionally viewed as career transition. They also experience the accompanying stressful responses. Lack of acknowledgment by individuals or their employers can create a disenfranchised stress experience that has a negative impact because it is not dealt with openly or constructively. We can broaden our view of career transitions by incorporating a wider span of what we consider career change to include these microtransitions within one's job.

Apart from Heppner's (1994, 1998) alternative descriptions of career change, the only concept found by this researcher in the literature that might resemble microtransitions is daily hassles (McIntyre, Korn, & Matsuo, 2008). Although a variety of definitions for daily hassles exist, the construct is loosely based upon the notion that everyday interruptions in our efforts to accomplish tasks create stressful reactions. While hassles may be similar in relation to stress appraisal dynamics, their role is more closely related to task disruption than career development. By contrast, microtransitions constitute meaningful change that requires a broader adaptive shift and references one's individual and cultural paradigms about career development.

Expression of Identity Through Work

To understand individuals' responses to transitions in the workplace and their experience of the relative stress that accompanies such change, one must first understand the core concept of how identity is expressed through work. Gottfredson (2002) acknowledges that people may not always be able to explain or even accurately understand their self-concepts but will, nevertheless, act upon their perceptions just the same. It follows, then, that identity may play a significant role in how people evaluate an event as more or less stressful, regardless of whether their appraisal occurs as a tacit process.

The Impact of Personality on Appraisal of Stressors

Although it is unlikely that organizations can develop cost effective methods for changing the personalities of their employees to improve their coping responses to stressful transitions, improved knowledge concerning how personality and perceptions of stressors interact could positively impact our ability to shape coping responses. For example, understanding identity and self-structure may lead to insight into how individuals change to fit different situations. Self-structure is part of people's discriminative facility in responding to specific contexts. A fundamental feature of self-structure is evaluative organization.

Evaluative categorizations of self-beliefs have implications for self evaluations at both global and specific levels. Global self-evaluations impact mood and motivation (Baumeister, 1998; Dutton & Brown, 1997; Tesser & Martin, 1996). Furthermore, some cognitive theorists emphasize the connection between domain specific (e.g., workplace, family role) self-evaluations and subsequent behavior (Harter, 1999; Marsh, Byrne, & Shavelson, 1992; Pelham,

1991). How beliefs about the self are organized influences (increasing or decreasing) the impact of change in one's environment. For example, negative self-evaluations are most strongly associated with mood and self esteem (Showers, Abramson, & Hogan, 1998). Most people use compartmentalization to organize self-beliefs but this strategy is primitive and not as effective as integrative organization for minimizing the impact of unavoidable negative self beliefs (i.e., activated by situations outside the individual's control). Activation of a particular self aspect category brings to mind a set of attributes associated with the category demonstrated regarding self knowledge (e.g., work role) (Showers, Abramson, & Hogan, 1998) and regarding beliefs about others (e.g., boss, subordinate, peer, organization) (Showers & Kevlyn, 1999). Self and other constructions are closely linked to perceptions of stressors as threatening. In fact, the degree to which a person perceives that an event may negatively alter their role or identity in some way is directly proportional to their rating of that event as stressful. Therefore, helping an individual to have a less compartmentalized, more integrative process of appraisal could significantly impact their ability to effectively cope with stressful events in their environment.

Because career roles are often primary roles or have a strong connection to primary roles, threats or opportunities surrounding these core roles are likely to induce stressful reactions. Apart from the centrality of primary roles in identity, Super (1990) contends that occupational choice is an avenue for pursuing meaning and purpose in one's life. "The degree of satisfaction people attain from work is proportional to the degree to which they are able to implement their vocational self-concepts. Job satisfaction depends on establishment in a type of occupation, a work situation, and a way of life in which one can play the types of roles that growth and exploratory experiences have led one to consider congenial and appropriate" (pp.155). Our behavior can largely and personal estimates of his or her chances for success combine to

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influence much of his or her own behavior, whether that behavior is career preparatory, career exploratory, or career performance (Dagler & Salter, 2003). To further explain occupation as individuals' attempts to author meaning in their lives, Cohen (2003) has described career from an existential viewpoint: "[I]n an attempt to be authentic, he [Kierkegaard] believed that individuals would gravitate toward careers that are consistent with their view of themselves and help them grow toward their personal potential" (p. 201). In the same essay, Cohen discussed Frankl's construct of "will to meaning" as common force in human beings, regardless of personal background, to find a purpose and engage in behavior that was consistent with their constructs of meaning.

Historically, individuals have been more likely to implement their self-concepts within a single career, often within the same company. In today's turbulent world of work, however, such opportunities are more likely to be the exception than the norm. There seems to be a shift from a static concept of self as worker to a less stable, more creative acceptance of the flexible, Protean career (Claes, 2003; Hall & Mirvis, 1996; Orange, 2003). It is yet uncertain to what degree contemporary theoretical paradigms of change in the workplace will enable us to provide appropriate counsel and guidance regarding career development for these new workers. Our need to answer relevant questions for mid-life adults may pose greater urgency where their identities as workers are likely to be more or less attuned to career attainment than career mobility. In either case, it seems that constructs of identity (i.e., person) and congruence between work and self concept (i.e., process) may influence the course of career development and related ecological dynamics.

Assimilative and Accommodative Processes

Returning to our earlier vignette involving Deborah's decision to take a different job and the resulting impact on her team, we might speculate about the different responses from each person given various representative factors pertaining to their identity (e.g., age, gender, social roles and values). Multiplying these variables out by a much larger population, we could calculate correlations with stress reactions and longitudinal career behavior but would still only be able to capture a given portion of the variance and even less predictive value without exploration of the processes that moderate the *dynamic variation* among identity related variables.

A process that may be at work within the ecological framework of career development is Piaget's (1969) model of organization, adaptation, and equilibration. According to Piaget, identity development and growth require humans to organize their experiences into meaningful frameworks. These frameworks, termed schemes serve to guide individuals as they interact with the environment (i.e., how to behave in order to accomplish a given goal in a given situation). When encountering new stimuli, one is required to engage in adaptation by incorporating the new information into previously developed schemes through the process of assimilation and by accommodating or altering the scheme itself as necessary. Equilibration represents the movement toward accommodation based on the inability to assimilate a given experience into one's scheme (i.e., the child must establish balance between their schemes and their experiences to maintain a sense of reality and the capability to anticipate outcomes).

Whitbourne (1987, 2002) has integrated Piaget's principles of assimilation and accommodation with Eriksonian concepts of adult development in her discussion of identity styles. She asserts that adults will apply assimilation to support favorable views of themselves

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within a relevant domain of life (e.g., work) to the degree that they are able and accommodate their identities when an experience is overly discrepant with the favorable self perception. She outlines several stylistic approaches from her own research that are more assimilative (e.g., defensive rigidity, identity projection, and lack of insight or denial) or accommodative (e.g., favorable changes in identity, self-doubts and unfavorable changes in identity, and exploration of alternatives to establish a more neutral change in identity). Although Piaget (1969) discussed the processes of assimilation and accommodation working in conjunction with one another, Whitbourne has suggested that adults seem to each have a stylistic approach to processing experiences that reflects their own predispositions toward being more accommodative or assimilative in their efforts to adapt. These differences in style may also be reflected by variation in the construct of openness which has been linked to self-efficacy and positive adaptation to macro career change (Heppner, 1994). In reaction to micro career transitions, the process of assimilation and accommodation may help explain how people maintain and alter their identities as workers and adults in the larger context of change in their lives. The more accommodative (i.e., open to changing one's self scheme) style seems likely to aid people as they adapt to turbulence whereas an assimilative (i.e., rigid maintenance of identity in the face of discrepant experience) could hinder healthy adaptation. Whitbourne (1987) asserts, however, that a balance of assimilation and accommodation is preferred because she expects that people who are overly accommodative may overreact to the effects of aging. It may also be the case that adapting to microtransitions in a more accommodative or assimilative way may vary in its functionality depending on the individual and the context.

Rationale for the Study

Turbulence and rapid change in the world of work are elevating people's stress levels and increasing the task complexity of career management beyond what workers of past generations experienced. Perspectives, definitions, and general theory regarding career transitions need to be revisited and redefined to better empower researchers and practitioners seeking to benefit people who are engaged in career construction across the lifespan. The transition points of entering the world of work, changing jobs, or retirement no longer adequately capture the range of experiences that challenge today's worker. Incorporating advanced lifespan development theory and methodology may also allow for an improved understanding of the contextual nature of career transitions and their underlying processes.

It seems, from a rough count of publications over the last 10 years, that psychology maintains a confined perspective of career theory and application. Examples of this include the continued propagation of life-stage models in academic literature and training, unaddressed disenfranchised life transitions, and the continued notion implicit in life span research of "appropriate" development and life-transition response. These issues have, in some part, been addressed by modern life span development theory, but the majority of such research has examined perceived pivotal times of human transition (e.g., childhood, becoming an adult, aging and retirement). Middle adult years are rarely studied, partly because of interest but mostly because of limited access to the population (with the exception of incarcerated or institutionalized individuals). Similarly, career studies have primarily focused on career choice and career disengagement. There have been few studies that claim to incorporate more advanced constructivistic and contextual models and most have had restricted samples (e.g., white males).

The purpose of this study is to lay a foundation for reshaping how we view career

transitions, improving our understanding of reactions to career transitions and the underlying

processes and person characteristics that influence those reactions, and eventually produce

interventions and training that improve coping and career planning responses. The larger goals of

the research cannot be appropriately handled within the scope of a dissertation. Therefore, I

intend to explore a smaller, circumscribed portion of a theoretical model for career transitions,

investigating those aspects which I believe to be the least understood and to have the most utility

for psychologists. I have touched upon what I perceive to be some of the related areas of

psychology (e.g., stress and coping, lifespan developmental change, career theory and practice,

turbulence in modern work-life).

This study is the first of its kind and largely exploratory for the purposes of establishing a

foundation for better understanding how today's workers experience change, contributing to

future research, and augmenting our capacity for modifying and redefining career theory based

on principles of advanced lifespan development approaches to research (i.e., bioecological,

microdevelopmental). Dimensions of transition explored were frequency, type, and degree of

impact on subjective stress levels. I also examined the process of adaptation as workers integrate

their experiences with regard to well-being in the context of career transition.

Stress Responses to Microtransitions

Stress in the workplace and its effects have been studied a great deal (Lazarus, 1999;

Burke, 2002; Briner & Reynolds, 1999; Wofford, Goodwin, & Daly, 1999; Munton & West,

1995; Moyle & Parkes, 1999). This is partly due to the long accepted recognition that high levels

of stress tend to negatively impact performance and other employee factors that affect

productivity and profitability. Symptoms of stress that impair performance, motivation, and job

commitment include lowered job satisfaction, mood problems (e.g., depression and anxiety), cognitive disturbances (e.g., concentration, processing, and memory), physiological problems (e.g., hypertension, ulcers, coronary disease), interference in other life domains, and absenteeism. The variable subjective stress has been established as adequately reliable and valid and has interpretable meaning on key factors such as job satisfaction, productivity, health, and career adaptability.

Identity

There is little doubt that identity plays an important role in people's expression of self through work. It also seems likely that an individual's job satisfaction is closely linked with the degree to which their work allows them to engage in behavior that is congruent with the values and self beliefs that are foundational to one's identity. Exploring this relationship further may enhance our ability to predict how different workers react to unique transitions within or across job experiences. Various aspects of identity will be studied as they represent person in the bioecological model. Relevant demographic features will be studied as characteristics of the person (e.g., age, gender, ethnicity, job tenure). It should be noted that Bronfenbrenner & Morris (1998) discuss the person as having two places within the PPCT model. The first occurs at the point of interaction with context to influence the power and direction of proximal processes. The second function of person in the model is as developmental outcome. That is to say, through multiple interactions between person and context via proximal processes, the person grows and develops new aspects of their identity and capabilities.

Process of Adaptation to Microtransitions

The variable of adaptation (i.e., assimilative and accommodative) was studied as it reflects individuals' styles (Whitbourne, 1987) of approach to negotiating their response to microtransitions at work. This process was also expected to reflect on the stress coping response. Coping refers to efforts at mastery of conditions that tax or exceed one's adaptive resources (Lazarus & Folkman, 1984). Although several individual level coping models have been created, only a few have endured. These typically focus on integrating elements of the coping process into general stress constructs to place an emphasis on individual responses. For example, Folkman's (1984) cognitive appraisal model focuses on the impact of individual cognitive mediational processes and their impact on the experience of stressors. The model assumes that by changing perceptions about stressors, one changes the impact of those stressors on the individual's internal and external reactions. A wide range of stressors have been identified (e.g., poor physical work conditions, time pressures, role ambiguity, increased production demands, role conflict, management responsibility, underpromotion (non-events), lack of job security, poor relationships with a boss, subordinate, or other colleagues, level of participation in decision making, and office politics), but operationalizing these aspects of work stress has been difficult because of their subjective nature (Cooper & Marshal, 1978).

Overcoming the problem of subjectivity requires a better understanding of how individuals evaluate these situations. For example, one individual might perceive his or her underpromotion as irrelevant or benign, whereas another could experience it as threatening (Lazarus, 1999). Whether as a predispositional style or differential adaptation based on unique contextual or person factors, the processes of accommodation and assimilation was studied in

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relation to the microdevelopmental stress response as well as other outcome measures (e.g., job satisfaction).

Research Questions

Descriptive Exploration of Microtransitions

1. A range of career transitions will be established and interpreted in light of contemporary career development at the microdevelopmental level.

2. Base estimations of frequencies of microtransitions will be established.

3. Base estimations of the stressful impact of microtransitions will be established.

PPCT Exploration

1. Microtransitions will relate to subjective career outcomes.

2. Assimilative and Accommodative styles will reflect the process of person-context interaction by moderating the relationship between microtransitions and career outcome variables (i.e., job satisfaction, subjective ratings of career optimism, burnout, and life dissatisfaction).

CHAPTER 2

METHOD

Participants

The method of sampling is maximum variation sampling (Heppner & Heppner, 2004) which generates a heterogeneous sample for the purposes of gathering a rich set of interpretive data that is also large enough to develop observations of common patterns and themes in processes at the individual level. Participants at multiple levels of responsibility (e.g., front-line, mid-level, executive-business unit leader) from various organizations and industries (e.g., education, sales, healthcare, manufacturing) were surveyed. Because this study focused on understanding adult career development, participants were required to be 25 years or older and have more than one year of current, full time employment or equivalent experience. Participants were recruited by leveraging my personal and business contacts.

Of the 176 people who responded to the survey, only 154 were included in the sample for analysis. Twenty-two surveys were removed from the sample because of incomplete responses or because the participants did not meet the sample qualifications. Respondent demographics and relevant job characteristics are shown in Table 1.

Table 1

Sample Demographic Data: Age, Gender, Ethnicity, Education, Job Tenure, and Employment Tenure

	N	*%*	*M*	*Minimum*	*Maximum*
Age	154	NA	44.43	25	74
Gender Male	60	38	NA	NA	NA
Gender Female	94	61	NA	NA	NA
Ethnicity Caucasian	141	95	NA	NA	NA
Education (in years)	NA	NA	17.89	10	28
Job Tenure	NA	NA	7.39	.08	40
Employment Tenure	NA	NA	21.29	1	54

Mean age of respondents was 44.43 years and ranged from 25 to 74 years. Respondents were predominantly female ($n = 93$, 61.2 %) with only 39 % of the sample being male. The sample was 95 % Caucasian and, therefore, not representative of the U.S. population. Respondents were well educated for the most part with most reporting some college.

Procedure

The survey was presented via email in an online format, including the appropriate informed consent information. Participants were asked to answer questions related to microtransitions, instrumentality, job satisfaction, job insecurity, openness, career goals, social support satisfaction, assimilation/accommodation, job burnout and life dissatisfaction prior to filling out demographic information.

Control Variables

Person variables were primarily interpreted as control variables in the analysis. These included basic demographic information that was collected including job tenure, employment industry, level of employment (e.g., individual contributor, front-line management, director/upper management, VP - business unit leader, EVP, C-level), job function (e.g., sales, management, administration), age, gender, ethnicity, years of education, years of employment, marital status, number of dependents. In addition, measures of instrumentality and openness to experience were used to capture personality information about the participants.

Instrumentality was measured using a 20-item instrumentality scale developed by Parsons and Betz (2001). The construct of instrumentality represents the capacity to "take action on one's behalf and to feel a sense of control of one's life" (p.212). It was expected that instrumentality

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might predict job outcomes to some extent Participants responded to 20 declarative statements using a five point Likert type scale to generate a total score ranging from 20 to 100. Cronbach's alpha of .85 has been reported for the measure (Parsons & Betz, 2001).

Openness to experience was measured using the shortened, 12 item Openness scale for the NEO-FFI (Costa & McCrae, 1992 in Weiss, Costa, Karuza, Duberstein, Friedman, & McCrae, 2005). The NEO-FFI is a short, 60-item version of the Revised NEO Personality Inventory designed to measure the five major domains of personality. Internal consistencies for the Openness scale have been reported at .54. The scale measures people's openness on five dimensions, aesthetics, feelings, actions, ideas, and values.

Context

A brief pilot survey was conducted to gather information about microtransitions (see appendix). Instructions were given describing macro-career change and contrasting it with micro-career change. Participants were then asked to describe microtransitions experienced during the past year and to apply a subjective rating of stress to each transition. The pilot survey was conducted anonymously using the online Survey Monkey tool. Participants were recruited from my personal contacts. In all, 34 people responded to the survey question describing microtransitions and assigning stress ratings to each reported event. The maximum number of microtransitions reported was ten. Participants utilized the full range of the subjective stress rating scale. Microtransitions varied in type in terms of context, reported impact, and nature (e.g., interpersonal, procedural, etc.). All responses met the defined criteria of a microtransition (see Appendix A) except for those given by one respondent who described a macro-career change instead of microtransitions. It was determined that the individual misunderstood the instructions.

The mistake was easy to detect and the error frequency was insignificant. Based upon the criterion validity, range and variability of responses, it was determined that the microtransition questionnaire was sufficient for gathering the type of data required for the current study.

To provide an additional measure of the broader context of participants' work experiences, information was gathered about the relative stability of their job using the job insecurity subscale on the Job Content Questionnaire (JCQ). This subscale consists of six items that measure job insecurity based on two types of information: (1) job insecurity and future prospects and (2) history about layoffs and work instability. Cronbach's alphas for the scale have been reported at .61 for men and .58 for women (Karasek et al., 1998). The scales authors agree that a more homogenous scale would yield more reliable findings but suggest that reducing job dimensions would sacrifice interpretability.

Although it has historically had mixed results, more in-depth analysis has demonstrated social support to be positively related to job satisfaction (Harris, Winskowski, & Engdahl, 2007). Because it was likely that social support might account for some of the outcome variance, a general measure of social support was included as a contextual control variable. Social support was measured by the 6-item short form of the Social Support Questionnaire (SSQ-6). Designed by Sarason, Shearin, & Pierce (1987), the SSQ-6 is intended to measure the number of people who are available to the person for physical or psychosocial support (SSQ-N) and one's overall satisfaction with social support (SSQ-S). Alpha coefficients were reported as .97 and .94 respectively (Sarason, Levine, Basham, & Sarason, 1983).

Identity Styles

The process of assimilation and accommodation was measured by the Identity and

Experiences Scale (IES; Whitbourne, Sneed, & Skultety, 2002). This scale has gone through a series of revisions and been correlated with other data and measures to establish its ability to assess a balanced (i.e., equal mix of assimilative and accommodative processing), assimilative, or accommodative approach to adaptation. Cronbach alpha coefficients have been established at .86 for identity balance, .86 for identity accommodation, and .72 for identity assimilation. Internal consistency estimates have also been established for the three scales at .88, .85, and .71 respectively (Sneed & Whitbourne, in press, as cited in Whitbourne, Sneed, & Skultety (2002).

Outcomes

Job satisfaction was assessed via the short form of the Minnesota Satisfaction Questionnaire (MSQ) and job satisfaction subscale of the Job Content Questionnaire (JCQ).

The MSQ was designed as an outcome measure for job satisfaction based on the theory of work adjustment (Weiss, Dawis, England, & Lofquist, 1967). According to the theory of work adjustment, job satisfaction is determined by appropriate fit between the individual employee's work personality (i.e., abilities and needs) and the work environment (i.e., work requirements and systems of reinforcement). The long form of the MSQ consists of 100 items, which load onto the following scales: ability utilization, achievement, activity, advancement, authority, company policies and procedures, compensation, co-workers, creativity, independence, moral values, recognition, responsibility, security, social service, social status, supervision (human relations), supervision (technical), variety, and working conditions. Each scale's factor dimension was maintained in the creation of the MSQ short form by choosing the item from each scale that had the highest factor loading, which resulted in a 20-item measure. When the MSQ short form was factor analyzed, two specific dimensions emerged, intrinsic and extrinsic satisfaction. The MSQ

short form yields scores on each of the two dimensions as well as the overall score for general job satisfaction. Internal consistency of for the intrinsic satisfaction scale ranges from .84 to .91, for extrinsic satisfaction from .77 to .82, and for general satisfaction from .87 to .92. The median reliability coefficients reported are .86 for intrinsic satisfaction, .80 for extrinsic satisfaction, and .90 for general satisfaction.

In addition, job satisfaction was measured using the a 5-item job satisfaction subscale of the JCQ. In addition to asking respondents to provide a subjective rating of general job satisfaction, the scale measures their consideration of employment opportunities, their willingness to take the same job if given the choice again, their willingness to recommend the job to others, and whether the job has met their original expectations. Cronbach alpha for the job satisfaction subscale has been reported at .76 (Bongkyoo, Kawakami, Chang, Koh, Bjorner, Punnet, & Karasek, 2008).

In order to capture a broader measure of general satisfaction, the life dissatisfaction subscale of the JCQ was included as a dependent criterion. Cronbach alpha for the life dissatisfaction subscale has been reported at .90 (Bongkyoo et al., 2008).

Participants were also asked to briefly describe their career goals over the next few years and rate the likelihood of achieving these goals on a 100 percentile scale. This rating was used to gauge a subjective estimate of participants' optimism about their career trajectories. Respondents used the full range of the scale. The mean rating was .78 with a standard error of .021 and a standard deviation of .26.

Burnout was originally theorized as a condition of "emotional exhaustion, depersonalization, and reduced personal accomplishment" (Maslach, Jackson, & Leiter, 1996 p.4). When workers are emotionally exhausted, their capacity to meaningfully and effectively

engage in their work becomes diminished. Depersonalization from work is characterized by cynicism and negative feelings about people at work. Finally, burnout can result in a tendency to be self-critical and dissatisfied with personal performance. Burnout has been correlated with poor job performance, attrition, absenteeism, and emotional disengagement. Burnout has also been linked to negative health outcomes such as fatigue, insomnia, increased use of drugs and alcohol. For the current study, job burnout was measured by the Maslach Burnout Inventory-General Survey (MBI-GS). Originally, the MBI was designed to measure burnout in human services. With the 3rd edition, researchers developed a version that could be used across jobs and industries, the MBI-GS. Scales on the MBI-GS, Exhaustion, Cynicism, and Professional Efficacy maintain the originally theoretical components of burnout. One departure form the original theoretical dimensions is the change from depersonalization to cynicism, which is characterized more by indifference toward the work itself as opposed to a negative attitude toward consumers. Research by Schaufeli, Leiter, and Kalimo (1995) discovered several correlations between subscales on the MBI-GS and organizational outcomes (as cited in Maslach et al., 1996). Both cynicism and exhaustion correspond to mental and physical strain as well as work over-load. Professional Efficacy has been linked to job satisfaction and employee engagement. Cronbach alphas for North American employees (n = 3727) were .89 for exhaustion, .80 for cynicism, and .76 for professional efficacy (Maslach et al., 1996).

<div align="center">Analysis</div>

In Bronfenbrenner's (2005a) discussion of the PPCT model, he describes the state of the model as it stands in the process of theoretical validation as being in "discovery mode," contrasting it with "verification mode" in the following way:

<div align="center">43</div>

Two goals of "discovery mode" research (p. 4) in contrast with "verification mode" research (i.e., replicating previous findings in other settings to make sure that the findings still apply).

1. Devising new alternative hypotheses and corresponding research designs that not only call existing results into question but also stand a chance of yielding new, more differentiated, more precise replicable research findings and thereby producing more valid scientific knowledge.

2. Providing scientific bases for the design of effective social policies and programs that can counteract newly emerging developmentally disruptive influences. This has been an explicit objective of the bioecological model from its earliest beginnings.

He has also thoroughly discussed research design issues (Bronfenbrenner, 2005b) elsewhere and voiced concerns about the need for process related research, which in its most advanced form would also include person, context, and time. The point of his arguments is that, too often, statistical relationships are established between variables without explanation of why or how they are related. Because the process occurs in context, however, it can be difficult to hypothesize the nature of relationships even where one might suspect their existence. This challenge necessitates more exploratory research to uncover the how and why of process to describe relationships between variables related to context and person. In the present study, my aim was to generate descriptions of process in accordance with Bronfenbrenner's (2005a) PPCT model, requiring the submission that information regarding process would be discovered during the course of the study through exploratory analyses.

Where correlations were found to exist, they were examined through hierarchical regression analyses following established guidelines for PPCT research (Bronfenbrenner 2005b) to reflect moderation in the process of person-context dynamics, wherein exogenous variables (e.g., age, education) were entered first, followed by additional controls of person and context variables (i.e., instrumentality, openness to experience, Job Insecurity, and social support satisfaction), microtransitional variables, then by IES variables and, last, the interaction terms

involving IES variables and microtransitions. Analyses were conducted at the level of factor

scores on the basis of exploratory analyses of outcome measures.

Results

Microtransitions

I developed a categorical system for coding microtransitions. Initially, raters

independently organized a large sample of microtransitions ($n > 350$) from the data set. No

criteria for coding were discussed prior to analyzing the sample. When comparing sample

coding, it was discovered that both raters had identified ten different types of microtransitions.

Category labels were similar and categories were nearly identical conceptually. Raters agreed on

nine out of ten category types. The exception occurred because one rater did not assign a

category to differentiate changes in work processes/procedure. At the item level, rater agreement

was between 80 and 90 %. Upon further analysis it was agreed that some of the categories had

content-overlap or functioned as sub-categories. These microtransition types were integrated

before final coding took place. The categories used for scoring microtransitions that emerged

from the sample were:

1. A positive or negative change in volume of responsibility. These transitions in responsibility resulted in an increase or decrease in the amount of work for which the person was held accountable as well as the amount of time necessary to complete job demands. Examples:

   "Workforce attrition requires taking on new responsibilities while maintaining original responsibilities."

   "Went from teaching 7 classes to teaching 8 classes in one day."

2. A change in the nature of the person's responsibilities or tasks. These transitions could result from new and different job tasks, promotion, or demotion. Examples:

   "I was transferred from a pure staff position to a combination position of staff and sales responsibilities."

"Went from teaching and coaching to merely teaching..."

3. An environmental change. Such transitions caused a reordering of the person's physical work environment such as getting a different office, moving to a new work location, or direct modification to the work environment. Examples:

"My classroom was stripped and I had to start from scratch this year."

"Change in office location."

4. A personnel change. These transitions involved any addition or removal of personnel with whom the individual worked directly. Personnel transitions were those seen as potentially impacting interpersonal work relationships. As such, they included references to shifts in interpersonal communication, work conflict, onboarding activity, or persistent alterations in supervisor/peer/employee support behavior. Examples:

"New boss."

"My supervisor has begun to micromanage everyone and everything."

5. Changes related to work policy or procedure. Policy changes were those that required different standards or protocols for existing work tasks. Examples:

"A change in crisis management policy."

"I had to change the way I processed some reports."

6. Reorganization of the workplace. These transitions involved any situation in which organizational structures were modified in a way that created a noticeable shift in the work atmosphere or job experience. Reorganizational transitions also included changes brought on by economic or market pressures that impacted organizational factors such as business strategy, availability of resources, and budgeting. Examples:

"Significant leadership changes within the company impacting my daily job requirements."

"My VP group just announced that almost 10% of her workforce was to be reduced via layoffs and off-shoring…not my specific area."

7. Changes in technology. Any transition involving the addition or modification of technology used on the job. These transitions require workers to obtain new knowledge or skills. Examples:

"Changing to computer scheduler/case-note management system."

"I had to learn new programs and my staff had to be trained on them."

8. Changes to the person's pay structure. These included any transition in which the person was paid differently for his or her work, whether a noticeable increase or decrease or some modification to how the person was compensated altogether. Examples:

   "Recently required to forfeit annual raise and take furlough days to help offset the state's inability to balance the budget. Personal financial impact."

   "Change in commission from draw to variable draw."

9. A temporal change. These transitions involved modifications to when people worked and/or how much time was allocated for their jobs. Examples:

   "I changed from a 5-day work week to 4-days to lessen the number of hours commuting during the week. Difficult for the first few months, then great."

   "My position is full time at 32 hours per week. We had been given the opportunity to work extra hours…"

Also, a number of responses were not coded as microtransitions because they did not adequately fit the criteria of job change. Many of these were better characterized as daily work hassles (e.g., "Part of my job required me to answer the phone, which I found to be distracting sometimes.").

After microtransition categories were scored, data were analyzed to determine descriptive statistics for the sample (see Table 1). A total of 594 responses were assigned a valid microtransition category and 44 were found to be invalid. Categorically, personnel change ($n = 122$) had the highest frequency and change in pay ($n = 17$) was the most infrequent type of microtransition found in the sample.

Respondents assigned a stress rating from 1 to 10 for each microtransition where 10 was labeled as *extremely stressful* and 1 was labeled *almost no stress*. An average microtransition stress score was computed for each respondent by summing their stress ratings and dividing the total by the individual number of valid microtransitions. Average frequency of number of reported microtransitions by respondents was 3.86. The average stress rating for microtransitions across the sample was 5.85. The category with the highest average stress rating was change in

volume of responsibility ($m = 6.58$, $SD = 2.25$). The microtransition category with the lowest average stress rating was change in structure of work hours ($m = 4.72$, $SD = 2.51$).

Exploratory Factor Analysis of Dependent Variables

Dependent variables were factor analyzed in order to simplify the regression analysis and increase sensitivity to underlying dimensions measured by the outcome variables. Each of the outcome variables, job burnout (subscales of cynicism exhaustion, and professional efficacy), life dissatisfaction, career optimism, job satisfaction as measured by the JCQ, and job satisfaction as measured by the MSQ (subscales of intrinsic job satisfaction, extrinsic job satisfaction, and general job satisfaction) were factor analyzed using a principal component analysis with Varimax rotation. Kaiser normalization with eigenvalues greater than 1.0. was used as the criterion. Two factors emerged (see Table 2) based on eigenvalue criterion and scree plot analysis. The first factor had an eigenvalue of 4.703 and accounted for 52.26% of the variance. The second factor had an eigenvalue of 1.097 and accounted for an additional 12.19% of the variance. Factors were negatively correlated at -.982. Factor regression scores were kept as variables to be used as dependent criteria.

Table 2 shows the rotated component matrix. Based upon factor loadings, it appeared that factor 1 was characterized by high job satisfaction as indicated by MSQ variables (intrinsic job sat = .87, extrinsic job sat = .83, general job sat = .94) as well as the JCQ correlation (.82). Factor 1 also had a moderate factor loading for professional self efficacy (.48) and negative loadings for burnout scales of exhaustion (-.68) and cynicism (-.82). The strength and direction of the factor loadings seemed to indicate a shared dimension of wellbeing related to the job. Therefore, I determined to refer to Factor 1 as job wellbeing for interpretive purposes.

Table 2

Varimax Rotated Component Matrix with Factor Loadings

Factor Analysis	Component 1	Component 2
Career optimism	-.089	.919
Exhaustion	-.667	-.236
Cynicism	-.818	-.149
Professional efficacy	.482	-.008
Intrinsic job satisfaction	.871	-.001
Extrinsic job satisfaction	.831	.091
General job satisfaction	.942	.048
Life dissatisfaction	-.453	-.523
Job satisfaction (JCQ)	.882	.154

The only prominent factor loadings on Career Outlook were career optimism (.92) and life dissatisfaction (-.52). Smaller loadings were observed for exhaustion (-.24) and cynicism (-.15). Some small portion of the JCQ measure of job satisfaction (.15) was also represented in Career Outlook. Because the defining characteristic appeared to be future oriented along with a more global measure of satisfaction, I chose to label the second factor Career Outlook.

Regression

In order to standardize the variables and thus reduce multicollinearity problems, predictor and moderator variables were centered by subtracting variable means from individual variable values, which produced revised sample means of zero (see Frazier, Tix, and Barron (2004) for a more thorough discussion of centering when testing for interactions in regression models). Next, product terms were created by multiplying each moderator variable by the predictor variable to

create the hypothesized interaction terms. Each product term was created using the relevant centered variables.

The main research hypotheses were tested via hierarchical multiple linear regression. Independent regressions were conducted for each of the dependent variables, job health and career outlook. As described by Aiken and West (1991), predictor variables were entered sequentially in the following blocks after control variables and product terms entered last after the included predictor and moderator variables. In accordance with Bronfebrennar's (2005) PPCT model, person variables (i.e., instrumentality and openness) were entered ahead of context variables (i.e., job insecurity and social support satisfaction). The order of entry was:

1. Control demographic variables (i.e., age, gender, ethnicity, years of education, years at work, years in current job)

2. Control person variables (i.e., instrumentality and openness)

3. Control context variables (i.e., social support satisfaction and job insecurity)

4. Equilibration variables (i.e., assimilation, accommodation, and balance)

5. Microtransition stress

6. Assimilation interaction (i.e., Assimilation x Microstress)

7. Accommodation interaction (i.e., Accommodation x Microstress)

8. Balance interaction (i.e., Accommodation x Microstress)

As shown in Table 3, I examined correlations between predictor variables and related moderator variables to insure that centralizing them had minimized correlations between interaction terms and their components (Frazier et al., 2004). Significant correlations were found between the accommodation interaction term and its component variables, accommodation (r = -.166, p = .05) and microstress (r = -.25, p =.01). In addition, a significant correlation was observed between the assimilation interaction term and its component variable assimilation (r =

.17, $p= .05$). Thus, centering alleviated potential multicollinearity among predictors (Frazier et al., 2004).

Table 3

Pearson r *Correlations for Predictors and Their Interaction Terms*

	Assimilate	Accommodate	Balance	Microstress
Assimilate Mod	.17*	.06	-.04	.06
Accommodate Mod	.06	-.17*	.13	-.25**
Balance Mod	-.04	.13	.09	.06

*p <.05, **p <.01

Person, Context, and Microstress were discovered to have significant relationships with Job Health (Table 4). At the 95% confidence interval, we can logically conclude that each of these predict Job Health outcome.

Table 4

Whole Sample Hierarchical Multiple Linear Regression: Job Health

Predictor	R^2	R^2 Change	*F* Change	*df*	Sig. *F* Change
Controls	.061	.061	1.418	6, 130	.212
Person	.165	.103	7.910	2, 128	.001*
Context	.258	.093	7.908	2, 126	.001*
Equilibration	.263	.005	.274	3, 123	.844
Microstress	.309	.046	8.155	1, 122	.005*
Assimilation Moderator	.309	.000	.072	1, 121	.789
Accommodation Moderator	.315	.006	1.008	1, 120	.318
Balance Moderator	.335	.020	3.610	1, 119	.060

Looking at R^2 change, neither Person [R^2 change = .103; $F(2,128) = 7.910$, $p =.001$] or Context [R^2 change = .093; $F(2,126) = 7.908$, $p = .001$] were strong predictors of Job Health. Microstress

[R^2 change = .046, $F(1,122)$ = 8.155, p = .005] accounted for an additional 4% of the variance in the model, which still only constitutes a small effect (Cohen, 1988). Widening the acceptable alpha to account for low power, Balance as a moderator [R^2 change = .020; $F(1,119)$ = 3.610, p = .060] accounted for an additional 2% of the variance (Frazier et al., 2004).

I reported unstandardized coefficients (Table 5) because the standard coefficients for interaction terms were not standardized and, therefore, not interpretable (Frazier et al., 2004).

Table 5

Whole Sample Unstandardized Regression Coefficients:Job Health

	B	Sig
Instrumentality	-.049	.000
Job Insecurity	-.185	.002
Social Support Sat	.313	.027
Microstress	-.116	.005
Balance X Microstress	-.009	.060

Among person variables, Instrumentality emerged as the only predictor significantly different from zero (B = -.049, p = .000). Both context variables were significant. Job insecurity (B = -.185, p = .002) had a small negative predictive relationship with Job Health, whereas Social Support was a moderate predictor in the opposite direction (B = .313, p = .027). For Job Health, the unstandardized coefficient for Microstress was -.126 (p = .003), indicating a significant negative relationship between Microstress and Job Health. The unstandardized regression coefficient for the interaction term, Assimilation Moderator, was .001 (p = .910). Assimilation did not moderate the first order effect of Microstress on Job Health for the whole sample. The second interaction term, Accommodation Moderator had an unstandardized regression coefficient of -.006 (p = .126), indicating a lack of moderation by Assimilation as well. The third

interaction term, Balance Moderator, yielded an unstandardized coefficient -.009 approaching

significance ($p =.06$). This result indicated that Balance somewhat moderated the effect of

Microstress on Job Health.

In order to explore the relationships between the moderator variables, Microstress, and

Job Health further, I followed the recommendation of Cohen, Cohen, West, and Aiken (2003) to

split the sample into three groups. For Factor one, Job Health, the centered Balance scores were

used to divide the sample into low (-1 *SD* from the mean), medium (within 1 *SD* of the mean),

and high (1 *SD* above the mean) subsamples. Once cases were selected for each of the groups,

three separate regressions were conducted with Microstress as the predictor and Job Health as the

criterion. Results are shown in Table 6.

Table 6

Unstandardized Regression Coefficients for Microstress and Job Health: Balance as Moderator Variable

	Low	Medium	Hi
Balance	.09	-.14**	-.22

**$p < .01$*

Unstandardized coefficients were .09, -.14, and -.22 for low, medium, and high groups

respectively. The unstandardized coefficient for Microstress in the medium Balance sub-sample

was significant ($p = .005$). These findings show that Balance had a moderating effect on

Microstress in negative relation to Job Health. That is to say, among those whose Balance scores

were high, Microstress was more negatively correlated with Job Health. In contrast, participants

who had the lowest scores on Balance reported a smaller predictive relationship between

Microstress and Job Health in the opposite direction. The degree to which Microstress predicted

Job Health varied to the extent which individuals exhibited a balanced style.

Microstress [$R^2 = .043$; $F(1,122) = 6.262$, $p = .014$) predicted Career Outlook (Table 7).

The Person cluster ($p > .10$) did not emerge as a significant predictor; although, Context

approached significance [R^2 change $= .073$; $F(2,126) = 2.669$, $p = .073$]. Looking at the

moderator variables, no evidence of a relationship was found for Balance ($p > .10$). The

interaction between Assimilation and Microstress was significantly related to Career Outlook [R^2

change $= .033$; $F(1,121) = 4.935$, $p = .028$] and Accommodation as a moderator approached

significance [R^2 change $= .022$; $F(1,120) = 3.469$, $p = .065$].

Table 7

Whole Sample Hierarchical Multiple Linear Regression: Career Outlook

	R^2	R^2 Change	F Change	df	Sig. F Change
Controls	.025	.025	.553	6,130	.767
Person	.058	.033	2.255	2,128	.109
Context	.096	.038	2.669	2,126	.073
Equilibration	.126	.029	1.371	3,123	.255
Microstress	.168	.043	6.262	1,122	.014
Assimilation Moderator	.201	.033	4.935	1,121	.028
Accommodation Moderator	.223	.022	3.469	1,120	.065
Balance Moderator	.225	.001	.186	1,119	.667

As shown in Table 8, Social Support Satisfaction ($B = .364$, $p = .018$) was the only

Context variable that had a predictive relationship with Career Outlook. The unstandardized

coefficient for Microstress was -.11 ($p = .013$), indicating a significant negative relationship

between Microstress and Career Outlook. The unstandardized regression coefficient for the

interaction term, Assimilation Moderator, was -.014 ($p = .014$). The second interaction term,

Accommodation Moderator had an unstandardized regression coefficient of -.007 ($p = .075$).

Table 8

Significant Unstandardized Regression Coefficients: Career Outlook

	B	Sig
Social Support Sat	.364	.018
Microstress	-.11	.013
Assimilation X Microstress	-.014 -.11	.014 .014
Accommodation X Microstress	-.007	.075

Using Cohen et al.'s (2003) model again for Career Outlook, the sample was split based on Assimilation scores (i.e., -1 *SD*, M +/- 1 *SD*, and +1 *SD*). Unstandardized coefficients for the predictive relationship between microstress and Career Outlook were .04 for low Assimilation, -.10 for medium Assimilation, and -.23 for high Assimilation (Table 9). The unstandardized coefficient for Microstress in the high Assimilation group was statistically significant ($p = .029$) and approached significance for the medium sub-sample ($p = 065$). These findings indicated that Assimilation had a disordinal, linear moderating effect on Microstress as it relates to Career Outlook. As Assimilation increased, the predictive relationship between Microstress and Career Outlook grew increasingly negative. The degree to which Microstress predicted Career Outlook varied to the extent which individuals exhibited a balanced style.

Table 9

Unstandardized Regression Coefficients for Microstress and Career Outlook: Assimilation and Accommodation as Moderator Variables

	Low	Medium	Hi
Assimilate	.04	-.10	-.23*
Accommodate	-.23	-.15	-.33

*$p < .05$

I utilized the same split-sample method to investigate Accommodation as a moderator. The unstandardized coefficient for low Accommodation was -.23. For medium accommodation, it was -.15 and, for high Accommodation it was -.33. None of the predictive relationships for Microstress were significant in the regressions run with split-samples for Accommodation. These results revealed an ordinal, curvilinear interaction between Accommodation and Microstress. Among those with high scores on Accommodation, Microstress was more negatively correlated with Career Outlook. Conversely, participants with moderate Accommodation scores reported less of a negative predictive relationship between Microstress and Career Outlook. Participants with the lowest Accommodation scores reported the lowest negative predictive relationship between Microstress and Career Outlook.

Exploratory Analyses

As indicated earlier, it has been suggested that equilibration style varies throughout the lifespan based on personal factors such as age and gender (Whitbourne et al., 2002). To investigate these differences, the sample was divided into two subsamples by selecting cases for gender (Frazier et al., 2004). Regression analyses were replicated for Job Health and Career Outlook with each sample.

Gender: Males, Job Health

For gender, I divided the sample into two sub-samples, male ($n = 51$) and female ($n = 86$). I then repeated the same regression analysis I had used for Job Health and Career Outlook with each sub-sample.

The results for the male sub-sample are shown in Table 10 for Job Health.

Table 10

Male Sample Hierarchical Multiple Linear Regression: Job Health

	R^2	R^2 Change	*F* Change	*df*	Sig. *F* Change
Controls	.083	.083	.811	5,45	.548
Person	.354	.271	9.013	2,43	.001
Context	.430	.007	2.753	2,41	.076
Equilibration	.461	.031	.727	3,38	.542
Microstress	.497	.036	2.669	1,37	.111
Assimilation Moderator	.498	.001	.041	1,36	.840
Accommodation Moderator	.5	.002	.165	1,35	.687
Balance Moderator	.537	.036	2.673	1,34	.111

The only significant effect in the model was for the Person cluster [R^2 change = .271; $F(2,43)$ = 9.013, p = .001]. Person variables accounted for approximately 27% variance in the criterion variable Job Health. Context variables approached significance [R^2 change = .007; $F(2,41)$ = 2.753, p = .076]. There was no main effect for Microstress [R^2 change = .036; $F(1,37)$ = 2.669, p = .111). The only interaction term that approached significance was the Balance Moderator [R^2 change = .036; $F(1,34)$ = 2.673, p = .111].

Table 11

Male Sample Unstandardized Regression Coefficients: Job Health

Male Factor 1	B	Sig
Instrumentality	-.085	.000
Openness	.010	.528
Job Insecurity	-.213	.059
Social Support Sat	.431	.102

Unstandardized coefficients for Instrumentality and Openness were -.085 (p = .000) and .010 (p = .528), respectively (Table 11). The unstandardized coefficient for Job Insecurity was -

.213 ($p = .059$). The unstandardized coefficient for Social Support Satisfaction was larger and in the opposite direction (B = .431, $p = .102$). There were no significant effects for the interaction terms for males on Job Health.

Gender:Males, Career Outlook

The results for the male sub-sample are shown in Table 12 for Career Outlook. Neither Person or Context clusters were found to be significantly related to Career Outlook; although, the Context cluster approached significance [R^2 change = .092; $F(2,41) = 2.517$, $p = .093$].

Table 12

Male Sample Hierarchical Multiple Linear Regression: Career Outlook

	R^2	R^2 Change	F Change	df	Sig. F Change
Controls	.085	.085	.839	5,45	.529
Person	.162	.076	1.959	2,43	.153
Context	.253	.092	2.517	2,41	.093
Equilibration	.384	.13	2.681	3,38	.060
Microstress	.448	.064	4.322	1,37	.045
Assimilation Moderator	.453	.005	.335	1,36	.566
Accommodation Moderator	.536	.082	6.195	1,35	.018
Balance Moderator	.549	.014	1.027	1,34	.318

As shown in Table 13, unstandardized coefficients for Job Insecurity and Social Support Satisfaction were -.097 ($p = .448$) and .654 ($p = .032$), respectively. Microstress [R^2 change = .064; $F(1,37) = 4.322$, $p = .045$) was significant as was the interaction between Microstress and Accommodation [R^2 change = .082; $F(1,35) = 6.195$, $p = .018$].

To decompose the relationships between the interaction term of Accommodation and Microstress with Career Outlook further, I split the male sample into subsamples according to

Table 13

Male Sample Unstandardized Regression Coefficients: Career Outlook

	B	Sig
Job Insecurity	-.097	.448
Social Support Sat	.654	.032
Assimilation	-.044	.029
Accommodation	-.029	.102
Balance	.011	.618
Accommodation X Microstress	-.019	.011

the centered Accommodation scores into low (-1 *SD* from the mean), medium (within 1 *SD* of

the mean), and high (1 *SD* above the mean) subsamples (Cohen, Cohen, West, and Aiken 2003).

Once cases were selected for each of the groups, I ran three separate regressions with Microstress

as the predictor and Career Outlook as the criterion (Table 14).

Table 14

Unstandardized Regression Coefficients for Microstress and Career Outlook: Accommodation as Moderator Variable

	Low (B)	Medium (B)	Hi (B)
Microstress	.002	-.199*	-.46

*$p < .05$

Unstandardized coefficients were .002, -.19, and -.46 for low, medium, and high groups

respectively. B for Microstress in the medium accommodative sub-sample was significant ($p =$

.05). These findings show that Accommodation had an ordinal linear moderating effect on

Microstress in negative relation to Job Health. That is to say, individuals from the male sample

who utilized a more accommodative style of equilibration reported a stronger negative

relationship between Career Outlook and stress associated with microtransitions.

Gender: Females, Job Health

Results for the female sub-sample are shown in Table 15 for Factor 1, Job Health. Microstress approached significance [R^2 change = .030; $F(1,72) = 2.969$, $p = .089$] but only accounted for 3% of variance beyond Person and Context clusters. The Context cluster was significant [R^2 change = .087; $F(2,76) = 4.322$, $p = .017$).

Table 15

Female Sample Hierarchical Multiple Linear Regression: Job Health

	R^2	R^2 Change	F Change	df	Sig. F Change
Controls	.121	.121	2.199	5,80	.062
Person	.147	.027	1.214	2,78	.303
Context	.234	.087	4.322	2,76	.017
Equilibration	.236	.001	.045	3,73	.987
Microstress	.266	.030	2.969	1,72	.089
Assimilation Moderator	.279	.013	1.277	1,71	.262
Accommodation Moderator	.304	.025	2.506	1,70	.118
Balance Moderator	.346	.042	4.457	1,69	.038

As with the male subsample the predictive relationship between Job Insecurity and Job Health was negative ($B = -.154$, $p = .059$; Table 16).

Table 16

Female Sample Unstandardized Regression Coefficients: Job Health

	B	Sig
Job Insecurity	-.154	.059
Social Support Sat	.358	.044
Balance X Microstress	-.013	.038

Once again, the relationship between Social Support Satisfaction was larger in a positive

direction ($B = .358$, $p = .044$) Results for the female sample revealed an interaction effect between Balance and Microstress [R^2 change $= .042$; $F(1,69) = 4.457$, $p = .038$]. The unstandardized coefficient for Balance as a moderator was $-.013$ ($p = .038$).

In order to decompose the interaction term of Balance and Microstress further, I subdivided the female subsample into three groups based on Balance scores (Cohen, Cohen, West, and Aiken, 2003). For Factor 1, Job Health, I used the centered Balance scores to divide the sample into low (-1 SD from the mean), medium (within 1 SD of the mean), and high (1 SD above the mean) subsamples. Once cases were selected for each of the groups, I ran three separate regressions with Microstress as the predictor and Job Health as the criterion (Table 17). Unstandardized coefficients were .09, -.17, and -.21 for low, medium, and high groups respectively. B for Microstress in the medium Balance sub-sample was significant ($p = .01$). These findings show that Balance had a non-ordinal linear moderating effect on Microstress in negative relation to Job Health. That is to say, individuals from the female subsample who utilized a more balanced style of equilibration reported a stronger negative relationship between Job Health and stress associated with microtransitions. In contrast, individuals with low Balance scores reported a lower, positive correlation between Micrstress and Job Health.

Table 17

Unstandardized Regression Coefficients for Microstress and Job Health: Balance as Moderator Variable

	Low (B)	Medium (B)	Hi (B)
Microstress	.09	-.17**	-.21

**$p < .01$

Females: Career Outlook

Results for the female sub-sample are shown in Table 18 for Factor 2, Career Outlook. There was no significant effect for Microstress [R^2 change = .029; $F(1,72) = 2.378$, $p = .127$]. Results for the female sample revealed a significant interaction effect between Assimilation and Microstress [R^2 change = .061; $F(1,71) = 5.355$, $p = .024$]. The unstandardized coefficient for Assimilation as a moderator was -.018 ($p = .025$; Table 19).

Table 18

Female Sample Hierarchical Multiple Linear Regression: Career Outlook

	R^2	R^2 Change	F Change	df	Sig. F Change
Controls	.052	.052	.882	5,80	.497
Person	.071	.019	.78	2,78	.462
Context	.091	.020	.854	2,76	.430
Equilibration	.098	.007	.189	3,73	.904
Microstress	.127	.029	2.378	1,72	.127
Assimilation Moderator	.188	.061	5.355	1,71	.024
Accommodation Moderator	.189	.000	.019	1,70	.890
Balance Moderator	.206	.017	1.504	1,69	.224

Table 19

Female Sample Unstandardized Regression Coefficients: Career Outlook

	B	Sig
Assimilation X Microstress	-.018	.025

To decompose the interaction term of Assimilation and Microstress I, once again, divided the subsample into three groups based on Assimilation scores in relation to the mean (Cohen, Cohen, West, and Aiken, 2003). Once cases were selected for each of the groups, I ran three separate regressions with Microstress as the predictor and Career Outlook as the criterion.

Results are shown in Table 20. Unstandardized coefficients were not reported for the low

assimilation group because the subsample was too small to report significance. The

unstandardized coefficient for the medium assimilators was -.056, ($p > .10$).

Table 20

Unstandardized Regression Coefficients for Microstress and Career Outlook: Assimilation as Moderator Variable

	Low (B)	Medium (B)	Hi (B)
Microstress	NA	-.056	NA

Age

To investigate potential adaptational differences based on age, the sample was divided to

test predictive and moderator variables in accordance with the suggestion by Cohen et al. (2003).

Two sub-samples were created by splitting the whole sample at the median age ($M = 41.5$).

Regression analyses used for the whole sample were then applied to each sub-sample, younger

and older.

Age: Younger, Job Health

Regression analyses for Job Health and Career Outlook were replicated for the younger

subsample as shown in Table 21. The only significant effect for the regression with the younger

subsample ($M < 41.5$) for Job Health was for the Context cluster [R^2 change = .155; $F(2,64) =$

6.767, $p = .002$]. Microstress was not significant ($p > .10$) but the interaction between

Assimilation and Microstress approached significance [R^2 change = .029; $F(1,59) = 2.671$, $p =$

.108].

Table 21

Younger Sample Hierarchical Multiple Linear Regression: Job Health

	R^2	R^2 Change	F Change	df	Sig. F Change
Controls	.087	.087	1.292	5,68	.277
Person	.110	.023	.846	2,66	.434
Context	.265	.155	6.767	2,64	.002
Equilibration	.321	.056	1.674	3,61	.182
Microstress	.334	.013	1.157	1,60	.286
Assimilation Moderator	.363	.029	2.671	1,59	.108
Accommodation Moderator	.379	.016	1.520	1,58	.223
Balance Moderator	.388	.009	.833	1,57	.365

A closer look at the Context cluster showed that Job Insecurity had an unstandardized coefficient of -.235 (p = .004) and that Social Support Satisfaction had an unstandardized coefficient of .502 (p = .057; Table 22).

Table 22

Younger Sample Unstandardized Regression Coefficients: Job Health

	B	Sig
Job Insecurity	-.235	.004
Social Support Satisfaction	.502	.072
Assimilation X Microstress	.018	.057

Further exploration of the interaction between Assimilation and Microstress revealed an ordinal relationship between Microstress and Job Health across the three groups of younger assimilators (Table 23). Unstandardized coefficients for low assimilators, medium assimilators, and high assimilators were -.323, -.039, and -.078, respectively.

Table 23

Unstandardized Regression Coefficients for Microstress and Job Health: Assimilation as Moderator Variable

	Low	Medium	Hi
Microstress	-.323	-.039	-.078

Age: Younger, Career Outlook

      None of the predictor variables or interaction terms approached significance in the regression for Career Outlook (Table 24).

Table 24

Younger Sample Hierarchical Multiple Linear Regression: Career Outlook

	R^2	R^2 Change	F Change	df	Sig. F Change
Controls	.078	.078	1.144	5,68	.346
Person	.081	.003	.121	2,66	.886
Context	.107	.026	.929	2,64	.400
Equilibration	.116	.009	.211	3,61	.889
Microstress	.117	.001	.096	1,60	.758
Assimilation Moderator	.118	.000	.011	1,59	.918
Accommodation Moderator	.123	.005	.352	1,58	.555
Balance Moderator	.126	.003	.194	1,57	.661

Age: Older, Job Health

      The results for the older sub-sample are shown in Table 25 for Job Health. There was a main effect for the Person cluster [R^2 change = .277; $F(2,55) = 12.595$, $p = .000$]. Microstress predicted Job Health [R^2 change = .070; $F(1,49) = 6.997$, $p = .011$]. Results also revealed a

significant interaction between Balance and Microstress [R^2 change = .062; $F(1,46) = 6.899$, $p = .012$].

Table 25

Older Sample Hierarchical Multiple Linear Regression: Job Health

	R^2	R^2 Change	F Change	df	Sig. F Change
Controls	.119	.119	1.535	5,57	.194
Person	.396	.277	12.595	2,55	.000
Context	.430	.034	1.587	2,53	.214
Equilibration	.437	.007	.211	3,50	.888
Microstress	.507	.070	6.997	1,49	.011
Assimilation Moderator	.507	.000	.000	1,48	.987
Accommodation Moderator	.526	.019	1.860	1,47	.179
Balance Moderator	.588	.062	6.899	1,46	.012

Within the Person cluster, the only statistically significant predictor was Instrumentality ($B = -.075$, $p = .000$; Table 26). Microstress had an unstandardized coefficient of -.146 ($p = .011$). The interaction between Balance and Microstress yielded an unstandardized coefficient of -.016 ($p = .012$).

Table 26

Older Sample Unstandardized Regression Coefficients: Job Health

Older Factor 1	B	Sig
Instrumentality	-.075	.000
Microstress	-.146	.011
Balance X Microstress	-.016	.012

To decompose the significant interaction term of Balance and Microstress in the older subsample, cases were selected for three groups based on Balance IES scores in relation to the

mean (Cohen, Cohen, West, and Aiken, 2003). Once cases were selected, I ran three separate

regressions with Microstress as the predictor and Job Health as the criterion (Table 27). The

unstandardized coefficient was .09 for the low Balance group, -.25 ($p < .01$) for the medium

Balance group, and -.22 for the high Balance group. These findings show that Balance had a

disordinal linear moderating effect on Microstress in negative relation to Job Health. That is to

say, individuals from the older sample who utilized a moderately balanced style of equilibration

reported poorer Job Health when microtransitional stress was high as compared to individuals

who utilized less of a balanced approach to adaptation.

Table 27

Unstandardized Regression Coefficients for Microstress and Job Health: Balance as Moderator Variable

	Low	Medium	Hi
Microstress	.09	-.25**	-.22

**p < .01

Older: Career Outlook

Regression analysis was completed for Career Outlook with the older subsample as well.

Results are shown in Table 28. There was a main effect for the Person cluster [R^2 change = .138;

$F(2,55) = 4.682$, $p = .013$]. Microstress had a predictive relationship with Career Outlook [R^2

change = .101; $F(1,49) = 7.808$, $p = .007$]. Results also revealed an interaction between

Accommodation and Microstress that approached significance [R^2 change = .035; $F(1,47) =$

2.931, $p = .094$].

Table 28

Older Sample Hierarchical Multiple Linear Regression: Career Outlook

	R^2	R^2 Change	*F* Change	*df*	Sig. *F* Change
Controls	.048	.048	.579	5,57	.716
Person	.187	.138	4.682	2,55	.013
Context	.204	.018	.589	2,53	.559
Equilibration	.268	.064	1.453	3,50	.238
Microstress	.369	.101	7.808	1,49	.007
Assimilation Moderator	.396	.027	2.176	1,48	.147
Accommodation Moderator	.432	.035	2.931	1,47	.094
Balance Moderator	.436	.004	.341	1,46	.562

Significant unstandardized coefficients are shown in Table 29. Within the Person cluster, the only statistically significant predictor was Instrumentality (B = -.058, p = .004). Microstress had an unstandardized coefficient of -.183 (p = .007). The interaction between Accommodation and Microstress yielded an unstandardized coefficient of -.009 (p = .094).

Table 29

Older Sample Unstandardized Regression Coefficients: Career Outlook

Older Factor 2	B	Sig
Instrumentality	-.058	.004
Microstress	-.183	.007
Accommodation X Microstress	-.009	.094

To decompose the significant interaction term of Accommodation and Microstress in the older subsample, cases were selected for three groups based on Accommodation IES scores in relation to the mean (Cohen, Cohen, West, and Aiken, 2003). Once cases were selected, I ran

three separate regressions with Microstress as the predictor and Career Outlook as the criterion. Results are shown in Table 30. The unstandardized coefficients Accommodation groups were -.12, -.17, and -.39 for low, medium, and high respectively. Individuals reported poorer expectations about their work future when employing more of an accommodative style in the face of microtransitions. That is to say, individuals from the older sample who utilized a more accommodative style of equilibration reported poorer Career Outlook when microtransitional stress was high. In contrast, among individuals who had low scores on Accommodation, the negative relationship between Microstress and Career Outlook was weaker.

Table 30

Unstandardized Regression Coefficients for Microstress and Career Outlook: Accommodation as Moderator Variable

	Low	Medium	Hi
Microstress	-.12	-.17**	-.39

**p < .01

Discussion

Overview

Within the evolving global economy and rapidly changing marketplace, work has entered an entirely new era with regard to career development, human capital management, employee engagement, job satisfaction, career success, human-technology interaction, and work-life balance. Today's workers are expected to negotiate change as the norm rather than as anomalous bumps on the road of career. Workers' expectations have evolved from the traditional career trajectory of climbing the ladder within one or two companies (Hall & Mirvis, 1995) to

unstructured systems of self-directed, values driven, physically and psychologically mobile paths (Sullivan & Arthur, 2006). Our concepts of career development must evolve to match the paradigms of the new worker while, simultaneously, illuminating the impact of changes in the world of work on humans across the lifespan. Both lifespan development and career theories have been expanding with the integration of postmodern constructs that illustrate nonlinear cycles of human change. In this respect, the current study explored the concept of micro-career change and its impact on the early 21st century workforce. Specifically, I categorized microtransitions by type, quantified their presence with regard to stressful impact, and measured that impact on job-related outcomes. Further, I tested proximal processes between person and context in accordance with Bronfenbrenner's (2005) PPCT research model by examining the moderating role of identity styles on career microtransitions. Exploratory analysis yielded additional findings related to age and gender differences in the proximal process of adapting to microtransitions.

Microtransitions

Microtransitions are defined as changes in one's current workplace that require some noticeable level of adaptation and impact the way a person experiences his or her job. They are diverse shifts in the nature of one's work that constitute meaningful adjustment and, as evidenced in the findings, a relevant stress response. Beyond the realm of minor distractions or daily hassles and below the picture of traditional career change, Microtransitions appear to be a useful construct for studying career change at the microdevelopmental level.

Microtransitions were distinguished as a valid career construct via the significant relationship between associated stress response ratings and career outcome factors. A large

sample of microtransitions was collected and categorized for study. Responses were organized into 9 preliminary categories. Findings indicate a variable and dynamic relationship between microtransitions, person and context relative influences (e.g., instrumentality, social support, age, and gender) adaptive identity processes and job health and career outlook. As expected, the stress associated with microtransitions was found to be significant as evidenced by their relationship to job health and career outlook. Based upon the findings of this study, further exploration of microtransitions is warranted.

Where microtransitions were valid predictors of Job Health and Career Outlook, identity styles moderated those relationships. Although effects were small, detecting statistical significance of moderating effects by testing interaction terms in regression analyses can be challenging at best (Frazier et al., 2004). Given the sample size and the number of predictors in the regression model, the variance accounted for in the findings may be an underestimation of the true relationships between the interaction terms and criteria. In each case where moderation occurred, results indicated that higher utilization of related identity style magnified the negative correlation between Microtransitions and the criterion. Although causal relationships were not measured in this study, the findings suggest that overreliance on a given style of equilibration may exacerbate the predictive relationship between micro-career change and subjective ratings of career outcomes.

Findings were somewhat inconsistent with Whitbourne (2002) in that balanced equilibration was not favorable in relation to outcomes. In fact, a balanced adaptational approach increased the predictive relationship between microtransitional stress and Job Health in a negative direction in nearly all of the analyses. This suggests that, with regard to handling the

identity threats created by microtransitions, one might expect better Job Health when Balance is not the dominant approach to adaptation.

Data also indicated that identity styles moderate the predictive relationship between Microtransitions and Career Outlook. In this case, however, Assimilation had the most significant influence on the relationship between Microtransitions and career outcomes. That separate identity styles moderated career outcomes differently is not surprising. The unique dimensions captured by the two criterion factors may explain some of these differences.

It may be that the dimension of Career Outlook was more sensitive to the interaction between Assimilation and Microtransitional stress than the dimension of Job Health. It appears that Career Outlook represents a somewhat global sense of wellbeing and expectations related to the future and, therefore, may provide respondents with more emotional distance when considering their responses. Conversely, Job Health contains a dimension that seems more immediate and affectively accessible. These differences may explain why Assimilation moderated the predictive relationship between Microtransitions and Career Outlook but did not emerge as a moderator for Microtranstions related to Job Health. Prior research has shown that being overly assimilative has a more diffuse effect than dependence on a balanced or accommodative style. Whitbourne et al. (2002) discovered that, although older adults utilize assimilative strategies to maintain positive self-image in the face of change or threats to identity, a dynamic exists by which assimilation masks hidden dissatisfaction. It may be that Career Health served to unmask some of the assimilators' distress where measures that loaded more strongly on Job Health did not.

Although identity style as a moderator seems to vary by age and gender, the direction of the moderating effect was highly consistent. Although it has been hypothesized that a balanced

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style, which presumable incorporates equal amounts of assimilative and accommodative influences, is most preferable for adapting to change, findings in the current study suggest overreliance on any one style may be detrimental to adaptation. Prior research on identity styles concluded similarly that different styles are more effective for different people (i.e., men and women) at given points in the lifespan (Whitbourne et al., 2002). It may be, however, that the process of equilibration is more fluid than previously believed. Future research examining the role of identity styles should more closely examine the relevance of contexts and other individual characteristics in addition to age and gender. It may be that further exploration of microtransitions will provide greater insight into how the process of equilibration interacts with the context of career at an even greater degree of specificity.

Post-hoc content analysis revealed more about the nature of adaptation by participants in this sample. For example, some participants discussed their need to adapt performance, productivity, standards and expectations, personal relationships, and work-life balance. Others noted the need to gain new skills or knowledge in response to microtransitions such as new procedures, new responsibilities, or new technology. Western society has been fascinated with changes in technology for centuries but at no time in history as the evolution of technology been so rapid. It is estimated that by the end of 2010, the volume of technical knowledge will double every 72 hours. Although the rate and manner in which our technological growth will impact the workplace, we can already see some of these effects on our society in areas of work, politics, recreation, and education (e.g., web 2.0, social media, social consumerism, social networking, and social learning). The current pace of evolution in the way humans interact with technology will undoubtedly be relevant to the evolving workplace. People's capacity to adapt to those

changes will inevitably become more relevant as the exponential nature of change becomes more salient.

Gender

When gender was controlled for in the main analysis, both Microstress and some of its interaction terms emerged as significant predictors of Job Health. However, when the sample was split into gender subsamples, these relationships became less apparent. Only one interaction effect emerged as significant for Job Health among the two samples. For the female half of the sample, Microstress did not predict Job Health independently, but its interaction with Balance was significantly different from zero. The amount of additional variance accounted for by the interaction between Microstress and Balance was 4%.

One explanation for fewer significant relationships between predictors and Job Health could be that the loss of power from dividing the sample lowered the chances of finding significant results for the interaction terms. Alternatively, there may be a more complex relationship between gender and other control variables as evidenced by the fact that demographic controls were nearly significant ($p = 06$) for the female sample when Job Health was the criterion. Post-hoc review of the unstandardized regression coefficients for demographic controls in the female subsample with Job Health as the criterion revealed a significant relationship between age (.034, $p = .029$) and Job Health. These observations suggest that future investigation should examine potential moderation of the relationship between identity style and microtranstitions by age and gender.

Perhaps the most interesting finding for gender differences was the distinction between interaction terms and Career Outlook for the two samples. For the female subsample,

Assimilation moderated the relationship between Microstress and Career Outlook, whereas Accommodation had a significant moderating effect for males. This finding is consistent with Whitbourne's assertion that there are clear differences in processing style between the two genders (2002).

Age

For purposes of this study, differences in age were interpreted as cohort effects for analysis. Although an exploratory analysis was performed using age to select cases, it should be noted that this researcher was not attempting to investigate the effects of aging on the process of adapting to microtransitions. The following interpretation of the data is restricted to cohort effects of age only.

There appears to have been quite a difference in responses to microtransitions between the older (i.e., age > 41.5) and younger subsamples. Microtransitional stress was only significant as a main effect for the older half of the sample. The moderating effect of Balance on Microtransitions was similar to findings for the overall sample in that higher balance could be viewed as a liability. Findings suggest that the difference between the younger and older samples may be related to the changes in the world of work that served as the impetus for the current research. Whereas older workers may be more inclined toward a traditional career trajectory characterized by incremental linear change, younger workers have been brought up in the tumultuous global economy of frequent, significant change. Therefore, the expectation of change as the norm may have served as a buffer against microtransitions for the younger half of the sample.

The differences between older and younger participants may also reflect the impact of

protean and boundaryless orientations in the younger half of the sample. Historically, employees and employers formed social contracts that implied certain commitments. For employers, they were responsible for providing an ongoing opportunity for work and advancement, secure position, and fair pay. Employees made commitments to stay with a company throughout their career so that employees could be valued as capital assets, and fulfill job requirements so that companies could expect production needs to be met.

The protean career model attributes career development to the individual (Briscoe& Hall, 2006). It may be that younger workers who have adopted a more protean perspective of career development view microtransitions as less threatening because they perceive themselves to be less restricted by linear career paths. When change happens, they may feel a greater sense of control over their futures than older workers who perceive themselves as victims of the changes in their work. In fact, the self-directed protean workers may expect and engage changes as opportunities to learn and grow (Hall & Moss, 1998). Furthermore, it has been suggested that workers with protean paradigms of career are also motivated more by a broader range of values than traditional workers who tend to gauge their success by increases in salary and promotion (Briscoe & Hall, 2006); Hall & Mirvis, 1995). This, again, may suggest an entirely different orientation to change between younger and older workers.

The boundaryless career follows a very different path than that of traditional career paradigms (Sullivan & Arthur, 2006). Whereas traditional career paths define normal development as linear progression within a couple of companies, the boundaryless career is defined by "physical mobility" referring to changes across jobs, locations, and job descriptions. The appraisal of change as a stressful event might differ significantly depending upon whether one viewed it as normative or non-normative. For this reason, microtranstions are likely to be

evaluated quite differently by individuals based on their orientation towards boundaryless or traditional career paths.

Although the protean and boundaryless career orientations have been ascribed to younger workers, it should be noted that their underlying dimensions may not be directly attributable to age. In a study of protean and boundaryless career constructs, it was discovered that an increase in values driven motivation correlated with age (Segers, Inceoglu, Vloeberghs, Bartram, & Henderickx, 2008). Researchers also determined that at least some work experience was necessary for employees to adopt a characteristic of self-driven career development. So, while some of the differences in perspectives (e.g., change as opportunity) might be attributed to age cohort to the degree that younger people subscribe to protean or boundaryless paradigms of career development, the relationship between age and appraisal of microtransitional change is likely more complex. This effect may also fluctuate as protean, boundaryless, or traditional career paradigms become more or less dominant in the workplace. This relevance is significant given the rapid population changes occurring. For example, it is expected that more than half the workforce will be over 40 by the year 2020 (Visser, & Beatty, 2005).

Broader Implications

Findings in the current study have revealed an important microdevelopmental career construct in Microtranstions. Beyond major career change, researchers may now explore immediate changes that impact employees' career and job outcomes. This is significant in that researchers have known for some time that more attention needed to be given to mid-adult and late-adulthood career development but have struggled to identify where and how to study relevant dynamics (Russell & Visser, 2005; Sterns & Sterns, 2005). Further, findings support the

contention that adult career be studied in the context of human development and more effort be given to integrating career and adult development reflecting the significant overlap of adult life and work.

Results contributed to the paucity of research on adult career development, particularly during midlife where adaptation to change through career development is of key interest (i.e., the equivalent of initial transition into the world of work or retirement). It was expected that career counselors, human resource professionals, organizational development consultants, life span development researchers and counseling professionals might benefit by broadening their perspective of the nature of career transitions and their impact on individuals' lives. Being able to acknowledge the impact of a broader range of transitions and understand how to counsel and educate people about the transitions they are experiencing or facing can benefit individual practitioners. Likewise, professionals who work at an organizational level can better predict the impact of planned change, helping employees to adapt and adjust more effectively. As the importance of career interventions and guidance and its impact on satisfaction, productivity and, indirectly, health continues to be understood, data and improved scientific knowledge concerning adult career issues will be invaluable both on a micro and macro level.

The current study is primitive in its exploration of how micro-career transitions and individual differences interact to impact job and career outcomes. Clearly there are many possible avenues that need to be explored. Just as global microtransitional stress varied by personal and contextual factors, the relevance of specific types of microtranstions may vary even more by individual proximal processes. The present study investigated relationships between these variables but the design did not afford researchers the ability to understand causal relationships within the proximal process of adaption to micro-career change. Future research

should consider experimental and longitudinal designs to better understand the causal relationships between micro-career transitions and job outcomes.

In all likelihood, the construct of identity styles may be even more variable than originally hypothesized by Whitbourne (2002) given the differences between male and female and younger and older adults in this sample. This assumption is supported by additional research on identity styles in which multiple complex patterns of equilibration were observed relative to age and gender (Whitbourne et al., 2002). It is quite possible that other person and context variables may mediate or moderate the influence of identity style and microtransitions or other career related events. For example work values have been shown to be a meaningful component of occupational identity, particularly for younger workers (Patterson, 2005). Perceptions of Microtransitions may vary according to workers' differences in work values. Work motivations could have a similar influence on stress appraisal in the face of changes in the workplace. It should also be considered that the use of the IES to measure identity styles may not reflect the true interaction of equilibration and micro-change in the workplace. Measures that can examine equilibration more directly in conjunction with experiences of micro-change in the workplace may need to be developed in order to more accurately study the role of equilibration.

Findings suggest that organizations, HR personnel, and individual leaders may benefit from being more attentive to the impact of turbulent change in the workplace. Attention to the individual differences in processing change in particular seems important. For example, workers' views about change may vary greatly depending on age, sex, or related orientation to traditional, protean, or boundaryless career paradigms.

Greater personal insight on the part of workers is also warranted given the potential mediating effects of individual and contextual influences. The role of insight seems particularly

relevant to workers who have a protean orientation to career development (Segers et al., 2008). The self-directed career management paradigm requires additional information about negotiating career development.

Based upon differences in findings for older and younger cohorts in the sample, paradigms of career development that expect and accept change may serve to mediate the negative impact of turbulence in the workforce. Given prior research on the inefficacy of organizations' efforts to directly minimize the stressful impact of change, companies may find more benefit from training their workers to adopt more change oriented paradigms for their own career development. Similarly, career counselors who work with adults throughout the lifespan may find microtransitions to be an effective framework for understanding and addressing the challenges their clients face due to work turbulence.

Limitations

Factor 1, Job Health contained a high factor loading for job satisfaction, both for the MSQ and JCQ measures. Although job satisfaction has been linked to a number of key career and organizational outcome measures, the utility of job satisfaction as it has been traditionally measured is uncertain in the context of today's world of work characterized by rapid change and physical mobility. The variety of motivations may extend outside the boundaries of traditional job satisfaction measures for this new generation of employees. For example, one of the defining characteristics for millenials is their desire to have "meaningful work" (Patterson, 2005). A more appropriate approach might be to use career success measures to gain a more global sense of satisfaction in relation to employees' work experiences. Or, alternatively, newer measures that

are more tailored to the various cohorts in the workforce or that capture underlying dimensions common to all might provide more relevant outcome data.

It is suggested that future research delve more thoroughly into individual and contextual influences on interpretations of microtransitions. The current study utilized global stress scores that were an average of microtransition stress ratings. Future research should explore microtranstions in more detail(e.g., examining microtransitions by type) to better understand the complex nature of micro career change.

Another limitation was the restriction in the sample of participants. Although the sample captured a broad age range and diversity of job types and job tenure, results should not be generalized due to the fact that the sample was nearly entirely Caucasian and does not adequately represent the larger working population. Because of the small sample size and lack of random sampling, it is also unlikely that the industries, professions, years of education, and work and job tenure were representative of the larger North American workforce. For example, the mean job tenure reported in the sample was seven years. Familiarity with contextual factors in one's workplace might serve as a buffer to micro-change for some employees.

Level of worker education ($M = 17.89$) presents yet another concern about this sample's generalizability. Higher educated workers may be more likely to have jobs in which career paths are expected, whereas opportunities for vocations which include career development may be less available for people with less education. In this regard, workers employed in positions with less chance for upward mobility could perceive micro-change in the workplace in an entirely different manner. It is just as likely that the role of equilibration style might also function differently in the lives of people for whom career development seems more or less likely due to job limitations. This problem of matching theory to different segments of our population seems

to be an ongoing vulnerability in career research in that emerging theories of midlife career development inadequately incorporate proper consideration of the full range of people employed in today's workforce (Betz, 2003; Farmer & Rush, 2003; Whiston, 2003; Sterns and Huyck, 2001, Swanson, 2003). Concepts of Protean or Boundarylessness in career development, although interesting in consideration of workers whose career development is salient, may bear little relevance in the lives of people who are simply trying to make enough money to maintain their livelihood.

It is unclear as to whether frequencies of microtransition categories could be considered typical or were just a reflection of the sample or an artifact of the current recession. A larger sampling might uncover additional types or frequencies of microtransitions. As microtransitions continue to be researched, cohort effects can be quantified more thoroughly.

The questionnaire used to capture microtransitions was a shorter version than originally constructed due to concerns about the time required to complete the measure. Originally, it was intended that respondents comment on other aspects of their experience with the transition (e.g., why the transition was stressful, affective descriptors, how they responded to the change). Findings here are preliminary and it is suggested that microtransitions be explored in broader detail in order to gain a more comprehensive understanding of their nature. Microtransition stress ratings were aggregated and, thus, did not reflect specific stress reactions based on category. In the future, it is suggested that microtransitions be mapped to individual variables (e.g., values) that might further explain their stress appraisal in order to more accurately detect relevant proximal processes at the microdevelopmental level.

Although this study captured a more discreet level of microdevelopmental career change, the level of time was too broad (i.e., the previous year) to provide detailed information about

immediate proximal processes. Although such data may prove useful for examining cohort effects, future studies should attempt to study the process of adaptation to microtransitions closer to their occurrence to increase validity by limiting outside sources of variance that occur between the time of the event and time of measurement.

The questions used to measure career optimism have not been standardized. A more adequately researched measure of career optimism might have yielded different results. It is suggested that future research investigating relationships between microtranstions and career optimism use tests that have been validated for this purpose.

Job Insecurity as measured by the JCQ does not purportedly have strong internal consistency reliability. Although the authors suggest that interpretability would be impaired by dividing the measure into component factors, it might behoove future researchers to explore job security with a modified version of the JCQ scale or utilize an alternate measure with greater reliability.

APPENDIX

MICROTRANSITIONS SURVEY

2. Micro-transitions

This section pertains to changes experienced in the workplace.

· Job-transitions are changes from one job to another such as getting a new job or being laid off.
· By contrast, micro-transitions are changes in the current workplace that require some noticeable level of adaptation and impact the way a person experiences his or her job.

Each question below asks you to describe a micro-transition and rate how stressful it was for you.

A. For each Micro-transition, write a brief one to two sentence description of what happened and it's impact on you.
B. Rate how stressful the experience was on a scale of 1 to 10.

Please complete questions for as many micro-transitions as you had during the past year.

When finished, click Next at the bottom of the page to continue.

Add Question Here

Edit Question | Move | Copy | Delete

1. Write a brief one to two sentence description of a micro-transition at your workplace and its impact on you. Rate how stressful the experience was on a scale of 1 to 10 (1 = almost no stress; 10 = extremely stressful).

Description

Stress Rating

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