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7

PERSONAL PROJECTS AND SOCIAL ECOLOGY

Themes and Variations Across the Life Span

Brian R. Little

Jill is seething. She has had yet another blowup with her boss and is rehearsing her resignation speech as she stares out of her office tower window. Twenty-one stories below, and two miles to the southeast, Jack, a toddling tantrum in disposable diapers, is also having a bad day. Jill is surrounded by the pleasant amenities of a postmodern upscale office. Jack lives with his stepbrother and grandmother in a crowded apartment that

could be regarded, at best, as decidedly downscale. Jill has not always been angry; Jack will be smiling again by 6 o'clock. Jack and Jill do not know each other, but by the end of this chapter they might just meet.

What is going on in these lives? What type of conceptual framework and analytic tools help us understand the daily pursuits and distinctive concerns of the Jacks and Jills of this world and of those who care for them, for better or for worse? This chapter explores recent advances in one such framework, a social ecological model of human development. Our research lies at the intersection of personality, social ecology, and developmental science, although in recent years it has expanded into domains rather remote from its psychological origins, ranging from taxonomic analysis to economic philosophy and public policy (Little, in press-b). In the next section, I introduce some of the core aspects of our conceptual, methodological, and empirical approach to human development drawn from three separate stages of our research program. I then discuss the most central concept in our research, *personal projects,* and how these extended sets of personally salient actions differ across the life span in their meaning, manageability, and support. The section that follows that discussion proposes three tiers for developmental science that parallel similar tiers in contemporary personality psychology (Little, 1996; McAdams, 1996)—a base level of stable traits or temperamental differences, a middle level of personal action constructs, and a third level of life stories. I will allude throughout the chapter to the lives of Jack and Jill and look at the interdependent natures of their lives, so that we can see more clearly why people can both climb hills and tumble down them together, sometimes by design and sometimes by default. I will also speculate on how people in the process of climbing hills and developing together can avoid breaking their crowns.

A SOCIAL ECOLOGICAL FRAMEWORK FOR DEVELOPMENTAL SCIENCE: FROM SPECIALIZATION THEORY TO PERSONAL PROJECTS

Specialization Theory

Our research program began as an attempt to integrate Kelly's (1955) personal construct theory and his view of humans as "lay scientists" with an ecological perspective on personality (Little, 1968, 1972, 1976). In essence, it attempted to link constructivist and contextualist approaches to

human development (Little, in press-c). In contrast with perspectives on development that emphasized passive responding or the automatic unfolding of stages, Kelly saw humans of all ages as mounting and testing hypotheses called "personal constructs," and as revising these constructs in the light of experience. Although Kelly personally eschewed the label *cognitive,* his theory was decades ahead of its time in providing both a conceptual and a measurement framework for exploring humans as active, self-creating, and rather audacious creatures.

Although deeply Kellian in spirit, our early research expanded and modified the notion of humans as tacit scientists. We advanced the thesis that, if individuals are scientists, they are *selectively* scientific, displaying differential orientations toward and competencies with different ecological domains and objects. In short, humans are "specialists." The transactions between individuals and their contexts are characterized by *specialization loops* in which affective, cognitive, and behavioral features are mutually facilitating: The greater the affective orientation toward a domain, the greater the degree of cognitive differentiation and integration and the more frequently the individual is likely to engage in behavioral encounters within the domain. For example, specialization theory calls for greater attention to be paid to the nature of the environmental and contextual objects with which the developing individual has interactions. We posited persons and things as primary objects and showed that person orientation and thing orientation play important roles in how individuals create their own environments and influence their own developmental trajectories. We found that person specialists, relative to more thing-oriented individuals, scored high on measures of affective orientation toward others, had greater verbal complexity in their personal constructs about others, and attended more to the psychological and expressive features of others than to more superficial characteristics.

More important for the theme of this volume, person specialists were more emotionally expressive in terms of their facial cues in social interaction. This expressive feature of person specialists, we have argued, attracts more social interactions with others and generates a more complex and differentiated set of constructs about those encounters (Little, 1976). The context-engendering nature of specialized orientation serves both as a confirmation of the view of active agents creating their own environments and as a warning that such agency is selective and focused. Development is *channelized* both by the constructs that individuals develop in the course of specialized pursuits and by the affordances and constraints provided by

the ecological niches and primary objects to which they are exposed (Little, 1972).

One of the most robust empirical findings in research on person-thing specialization is that measures of these selective orientations are orthogonal, generating a fourfold typology of specialized orientations that we have labeled *nonspecialists* (low on both), *person specialists, thing specialists,* and *generalists* (high on both). Although the distinctive features of these groups go beyond the confines of this chapter, the characteristics of the nonspecialists and the generalists will be shown to foreshadow some of the findings in contemporary research on goal pursuit and personal action. We have speculated that nonspecialists, because of the extent of ego-centered construing in their personal constructs, may be fairly regarded as being *self*-specialists, primarily concerned with trying to make sense of their own feelings and personalities. Generalists, on the other hand, have been shown to have the ability to shift flexibly between construing environmental objects in personalistic or physicalistic terms and are, as a result, more likely to be highly creative, flexible, and adaptable in their environmental encounters—they are more likely, in Kellian terms, to have higher degrees of freedom in their life trajectories than those who are more selectively attuned to persons, things, or self (Little, 1972, 1976).

It was a short step from studies of primary specialization and the mutually reinforcing components of specialization loops to the more general question of what the different "specialties" are, above and beyond primary specialization, in which individuals might engage and that would create different life paths at each stage of development. Here we suggested that, instead of relying exclusively on personal constructs as analytic units, we should consider specialists as being engaged in "personal projects"— extended sets of personally salient activities that, as a whole, characterized their specialized, distinctive, indeed unique, pursuits.

From Personal Constructs to Personal Projects: Contextualizing the Assessment of Persons

I mentioned earlier that one of Kelly's distinctive contributions was the provision of a methodology through which his personal construct theory could be measured and tested. His repertory grid technique involves an elegant set of flexible probes examining the personal constructs through which individuals view their lives and, particularly, but not restrictively,

other individuals. It contains techniques for eliciting constructs and for appraising such characteristics as individuals' hierarchical structures, implicative linkages, and resistance to change (Kelly, 1955).

Personal projects analysis (PPA), similarly, was designed to meet 12 measurement criteria that we felt were central to understanding the interplay of persons and contexts in life-course development (Little, 1983, 1989, in press-b). Recently, these criteria have been summarized under four assumptive themes: constructivism, contextualism, conativism, and consiliency (Little, in press-c). Below I provide a brief overview of these by weaving together the narratives of Jill, Jack, and the loved and not-so-loved ones with whom they negotiate the projects of their lives.

Constructivism refers to a set of criteria that have as their common theme the need to elicit information that is personally salient and evocative for the individual. PPA does this by asking individuals to generate a list of their personal projects. Jill may generate a list that includes "figure out why I keep getting blindsided by the Accounting Department," "help mom cope with Alzheimer's," and "be less sensitive to Eric's cynical management style." Although the toddler Jack needs to be well out of his diapers before he can complete a PPA, he figures mightily in the project systems of others. Take his stepbrother, Luke. Luke might list the projects "babysit Jack," "play B-ball with the guys," and "study history." These are idiosyncratically formulated sets of personal action. We believe that direct elicitation from individuals of their current concerns, tasks, projects, and goals is a credible and necessary starting place (although not necessarily the termination point) for the sensitive analysis of personal action. Although he may occasionally distort, misperceive, or "put us on," the project gospel according to Luke has privileged status if we want to understand his life and play a constructive role in enhancing its quality.

The second assumptive theme, *contextualism,* urges that measurement of personal projects must provide a vantage point for viewing the daily contextual elements of individuals' lives—eliciting, for example, information about the spatial, social, and temporal ecologies within which personal projects are embedded. We ask individuals to specify where and with whom they are engaged in project pursuits, and to describe the standing of each project on the timeline that extends from the intimation of the possibility of a project to its conclusion. We might, for example, notice that many of Jill's projects are work focused and at the inception stage rather than moving toward completion; Luke's appear to be more present focused and

include a diversity of domains. Jack's grandmother, Ada, on the other hand, is largely consumed with thoughts of projects from her past. Another contextualist feature of PPA, to be given more attention below, is the use of ad hoc dimensions in studies where we are interested in appraisals of projects in particular contexts or ecosettings for which the standard dimensions would be insensitive. For example, among the ad hoc project dimensions used in developmentally focused studies in our own laboratory have been "support by spouse" among pregnant women, where the pregnancy was appraised as a personal project; "age you feel when engaged in this project" in a study of middle-aged men; and "extent to which your organization supports this project" in senior managers contemplating early retirement. With widows and widowers, Breed and Emmons (1996) used a dimension that tapped how much a respondent's deceased spouse would have likely supported the different projects engaged in by the surviving spouse. Each of these ad hoc dimensions, it should be noted, was a significant predictor of measures of well-being for the particular group in question. Chambers (1997) has completed the definitive compendium of the literally hundreds of ad hoc dimensions used in PPA to capture the contextual subtleties of people's pursuits.

The third assumptive theme undergirding PPA is a *conativist* emphasis: Personal projects are intentional, volitional acts. They are a set of coordinated acts about which people care; they are, in Brunerian terms, acts of meaning (Bruner, 1990; Little, 1993, 1998). We tap into the personal significance of projects by asking respondents to rate each of their projects on a set of appraisal dimensions (typically from 0 to 10) that have been chosen for their theoretical and applied significance (e.g., how enjoyable, under one's control, and stressful they are). The 17 standard dimensions can be subsumed under five factors: project meaning, structure, community, efficacy, and stress. As I will highlight later, human adaptation is enhanced to the extent that individuals are engaged in projects that, overall, are meaningful, well managed, supportable, efficacious, and not unduly stressful. If we were to calculate the mean score of Jill's projects for this month, we may find that her life is full of projects that are primarily stressful. Although the projects may be highly meaningful to Jill, she may not see them as supported by others. Jill is likely to feel conflicted and fed up with the ecosystems that are dominated by willfully thoughtless bosses and tragically uncomprehending mothers.

Conflict is also likely to accrue from another consequence of the volitional nature of projects. Apart from those who are cursed or blessed to pursue only One Project, most people, in their quotidian pursuits, are engaged in multiple projects, and conflict both within and between project systems is almost inevitable. We tap into this theme by asking individuals to complete cross-impact matrices in which they appraise directly the positive or negative implications of each of their projects for all the others. We use joint cross-impact matrices to examine the reciprocal facilitation and frustrations characterizing the projects of two or more individuals. Luke may find that he is able to do his homework while casually "minding" Jack, but he feels only Luke-warm about the homework and Jack-minding projects because it means he has to stay home while his friends are practicing slam dunks down the street.

The final assumptive theme is that of *consiliency*, a belief that measurement operations in personality and developmental science can provide a framework through which diverse sources of influence on development can be appraised and integrated. Unlike our earlier work, in which we appraised the affective, cognitive, and behavioral components of specialized orientations through *different* instruments, PPA provides simultaneous access to the cognitive representations of what we "think we are doing," the affective appraisals of them, and the behavioral acts through which they are actually carried out and, if the vicissitudes of environments allow, completed.

Another consilient theme is the provision of ways of jointly accessing the individual level and normative levels of measurement. For example, we can use scores on the various project appraisal dimensions as the equivalents of normative measures of individual differences by taking the mean score on each dimension for each individual and running measures of association with relevant outcome measures, such as subjective well-being or depression. Such normative measurement is the most frequently used approach in the published literature. However, PPA also affords the opportunity for the intensive study of a single case. Here, correlations are run within the single project matrix between dimensions (across the individual's 10 projects). Thus for one individual the correlation between project stress and control may be significantly positive, whereas for another person the same scales may be significantly negatively related. The comparability of data structures gathered at the normative and ipsative levels of analysis

raises a number of intriguing psychometric and statistical issues, including that of Simpson's paradox, which warns of potential incommensurabilities between these levels of analysis, and the ecological and individual difference fallacies, which make similar claims (for more details, see Little, in press-c).

Gee (1998) has made a detailed and persuasive case that there is a high degree of similarity or consiliency between personal project measures gathered at the individual level and those gathered at normative levels. The practical implication of this is that there is some solid psychometric grounding for theoretical interplay between clinicians with intensive knowledge of individuals and research developmentalists who are more concerned with normative measurement.

Social Ecology, Channelization, and Well-Being

At about the same time as we were working on the methodological and quantitative aspects of personal projects analysis, we formulated a social ecological model of human development that had as its core concern the systematic examination of personal, contextual, and transactional influences upon human adaptation and well-being. We formalized the model in a commissioned report intended to serve as a guide to policy analysis within the area of child and adolescent development (Little & Ryan, 1979). The model, subsequently expanded to include the full life span, is based on 12 guiding propositions, each of which generates a research agenda and a set of policy implications. For the purposes of this chapter, I wish to consider one of those propositions that bears most directly upon this volume's concern with self-development and action across the life span: the channelization proposition.

The channelization proposition posits that individuals can be conceived of as personal systems whose processes and development are channelized in dynamic relation to the environmental systems impinging upon them. The prime function of personal systems is the *integration* of these impinging systems, which include biological, social, cultural, physical-environmental, and historical influences. The form that such integrative activities take changes radically during the course of development. For Jack, the biological imperatives of digestive discomfort, the well-intentioned but relatively meager social support he is provided, and the noise level of a house near a freeway means that he has had to learn ways of balancing and integrating these disparate sources of influence: He yells like hell until

someone picks him up and changes him. Luke's challenges are more subtle; he needs to balance and integrate, with appropriate weighting, the social demands of his peer group, his growing conception of self as a basketball star (perhaps reflecting the cultural ideals available to him), and the biological perplexities of growing 4 inches physically over the course of a summer, but in doing so shrinking a foot in his motor coordination and social skills.

Jill's integrative demands are more subtle still. Her ability to integrate most of her biological demands has become routinized sufficiently that these demands require little conscious formulation, although she has conspired with her hairstylist to take care of those growing hints that gray matter has become a *top*-of-the-head phenomenon for her. But her social demands are complex; she has given over her life to her profession and has had two failed intimate relationships that continue to weigh heavily on her mind.

She is a systems engineer in a large engineering practice and has found the demands that have been placed upon her in recent years to be demeaning and dispiriting. A rather introverted, analytic engineer, she was the enthusiastic beneficiary of a historical context that actively promoted women's access to engineering schools. But she now finds, 10 years later, that she is expected to be the token "mother figure" in the practice, offering solace and advice to those who are having interpersonal problems and being the "front" person for consulting contracts with high-profile clients. Meanwhile, her substantive project contributions seem continually to be patronizingly praised and then set aside. She has just come back from a meeting where once again the senior partner has asked her to dine out with a client to discuss a proposal that was not even her own, but the inferior product of a superior twit.

PERSONAL PROJECTS ACROSS THE LIFE SPAN: MEANING, STRUCTURE, AND COMMUNITY IN SELF-DEVELOPMENT

Project Meaning: Having Worthwhile Pursuits

To be engaged in a meaningful project is to be pursuing something that is estimable and worthwhile. In PPA we ask individuals to rate each of their projects on the extent to which they are enjoyable, self-expressive, important, and value congruent. In early development, project pursuit is meaningful primarily to the extent that it generates positive affect and could

perhaps best be captured linguistically with labels such as *fun* and *enjoyable*. Although most people retain the capacity for enjoyment throughout life, there are other dimensions of meaning that become salient at different stages of development.

One of the PPA dimensions is of particular interest for our understanding of the role of the self in human development—the extent to which individuals appraise their projects as high in self-identity. By this we mean the extent to which projects are self-expressive, ones in which individuals feel particularly "themselves." Unlike those who posit identity formation as a global developmental achievement, we see the self as *distributed* in projects that vary in their degree of "fit" with a prototypical self (Little, 1993). Luke, for example, may feel most himself when on the basketball court. Jill may feel most herself when she is working on a challenging design project. Ada may experience this feeling when she is "minding" Jack.

Our empirical research over the years has shown that, with the exception of project enjoyment, the other "meaning" dimensions in PPA are not strong predictors of subjective well-being (SWB), certainly when compared with other dimensions that tap into perceptions of efficacy or (the lack of) stress, which have, in meta-analyses, shown consistently strong relationships with well-being (e.g., Wilson, 1990). However, recent research has shown that project meaning has a more nuanced role to play in the prediction of well-being. First, as mentioned above, SWB needs to be differentiated into separate measures of happiness and of purpose in life or life meaning. When these more "serious" aspects of SWB are used as criterion measures, project meaning is a significant predictor (McGregor & Little, 1998).

In addition, project meaning plays an important role as a moderator of the effects of other project dimensions in predicting a broad spectrum of well-being indices, including those that are more purely affective in nature. For example, Sheldon and Elliot (1998) have shown that project efficacy is a predictor of well-being only to the extent that the projects are also appraised as being "autonomous" (Deci & Ryan, 1991), in the sense of their being self-initiated rather than imposed pursuits. Thus Jill's efficacy in the social projects thrust upon her by her firm does not contribute to her sum of happiness one bit, although she begrudgingly admits that it does mean that the firm lands contracts that keep the whole enterprise afloat. Ada has reached the point in life in which self-expression has taken a backseat to something more like a combination of Eriksonian generativity and integrity. She is happy and finds life most meaningful when she is

contributing to the well-being of others, and sometimes this requires her to be somewhat more disingenuous than a younger Ada would have tolerated. She has to bite her tongue to keep from voicing concern about her daughter and new son-in-law, who have "taken off" once again and seem to care little for Jack. Their self-absorption makes them oblivious to the small acts of compassion going on just beyond their peripheral vision by a gangly teenager and an arthritic old woman.

Project Structure: Having Manageable Pursuits

However meaningful an individual's pursuits might be, if they are unmanageable or chaotic, that person's well-being is likely to be compromised. One of the theoretically most important dimensions in PPA is personal project control. Project control has been found to be a consistent predictor of SWB and is closely related to other dimensions, such as efficacy and a sense of competency. Control appears to be intimately related to the scope or scale of an individual's personal projects. Small-scale projects afford more control, generally speaking, than do larger-scale pursuits.

One of the most interesting developmental findings in our early research with personal projects was that older persons (ranging in age from mid-60s to 90s), compared with middle-aged and younger persons, were significantly more likely to be engaged in projects that were more meaningful, more manageable, more efficacious, more supported by others, and less stressful. We suggest that the key factor here relates to project scale and the control that is afforded by the reduction of the scope of projects undertaken (Little, 1989). As Brandtstädter has shown, one of the hallmarks of successful aging is the flexible strategy in which one accommodates to shifts in competency levels by undertaking more appropriate goals (see, e.g., Brandtstädter & Wentura, 1995).

It is important to be clear about our conclusion related to the scale of projects undertaken by the elderly. We are not saying that older persons are "selling out" or "giving up" on their cherished dreams. More likely, they formulate their dreams in a flexible rescaling that leads to greater likelihood of success. In this respect they are tacitly adopting the strategy of "small wins" advocated in organizational theory by Weik (1984), who shows that in social movements it is often beneficial to shift major aspirations to smaller goals linked to those aspirations. One consequence of this is that the occasional failures and frustrations of projects are easier to handle if they are relatively small in scale. It appears that the older subjects in our

studies with personal projects have been accruing such wisdom in the course of their life experiences (or reading Weik behind our backs).

Another of the propositions in our social ecological model, the control proposition, emphasizes that adaptation is enhanced to the extent that individuals have a sense of control *based on an accurate reading of their ecosystem resources and constraints.* This proposition, in one respect, appears to contrast with the highly influential perspective of Taylor and Brown (1988), who make a strong case that a certain degree of self-delusion is necessary to sustain well-being and happiness. We emphasize, in contrast, the need for an accurate reading of the nature of one's ecosystem and hence a veridical, not distorted, picture of one's control over valued courses of action. Are these seemingly conflicting views reconcilable? Partially.

Note first that we postulate that accurate perception of control is needed for successful *adaptation,* not necessarily happiness. The concept of adaptation is more temporally extended than happiness. Although we do not gainsay the desirability of happiness and its salutary effect, we observe that illusory control can lead to action that may range from charming imprudence to tragically bad judgment. Also, by locating our construct of control in people's ongoing personal action, we avoid some of the problems attending interpretation of control either as a fixed trait or as the result of an experimental manipulation.

One consequence of adopting a personal projects approach to examining control, then, is that we can discover, in the individual case, projects that a person perceives as completely under his or her control and others that he or she sees as subject to the whims of fortune, fancy, or the good moods of bad bosses. It is quite appropriate for some projects in our system to be given an illusory spin for the purposes of sustaining our happiness in a sometimes wearisome world. For other pursuits, however—what we call *core projects*—the potential cost of illusory control becomes too high (Little, 1998). Such projects ought not be taken lightly but appraised as realistically as possible in a world of imperfect knowledge of the future course of events.

Finally, and relatedly, personal projects are in themselves temporally extended sets of action, thus they afford us the possibility of looking at the stage of a project as a moderator of the salutary effect of distortions. Taylor and Gollwitzer (1995) carried out an intriguing study in which they were able to show that it is at the earliest stages of project formulation, during which the individual is deliberating as to whether or not to undertake the

project, that he or she is most likely to be veridical in perceptions of control and efficacy. However, when the individual is engaged in the implementation stage of a project, distortion is more likely to occur. This "implemental mind-set," in Gollwitzer's (1990) terms, is motivating precisely because it sustains the illusion of more control or efficacy than might be warranted.

This conclusion is not at all inconsistent with the social ecological view that control should be *based* upon accurate readings. Subsequent distortions, within the range of what Baumeister (1991) calls the "optimal zone of illusion" during the hot pursuit of project goals, may well be adaptive. Indeed, we see this as confirmation of Mark Twain's aphoristic advice on effective reporting: "I want the facts first; then I can distort them."

Luke's aspirations to become a basketball superstar, Jill's passing thought that she ought to begin her own engineering firm, and Ada's even more fleeting thought that she might live to see a cure for arthritis all need to be entered into with a perception of manageability as veridical as possible. Although it is tempting to say "Go for it!" to those we love, this would likely be more helpful advice after commitments have been made and the project is launched than when they are entertaining the possibility of a course of action that may have unanticipated consequences for their own lives and those of others.

Project Community: Having Sustainable Pursuits

Projects are typically, although not inevitably, social phenomena. They often derive from social expectations, particularly those that are regarded as normatively required age-graded "life tasks" (Cantor, 1990). Even those that are most deeply personal are often shared with intimate others. In PPA three dimensions tap into a sense of project community: visibility of projects, others' view of the importance of projects, and support given by others to the projects. The empirical evidence suggests that the higher the scores on these project community dimensions, the more likely the individual is to experience higher levels of well-being.

But there are, again, subtleties across the life span, this time relating to gender. We have some evidence suggesting that, although visibility of projects is salutary for women, it may be anxiety producing for younger men (Little, 1998). For women, well-being is enhanced to the extent that stressful projects are made visible to others; for males well-being is reduced if stressful projects are also visible ones. The reasons for this are still to be

explored, but one possibility is that, for women, making a project visible increases the likelihood of support from others, whereas for men, making a project visible increases the likelihood of criticism or censure.

There is empirical evidence that there are individual differences in the extent to which people are able to solicit support for their projects. Extraverts, for example, experience greater efficacy in their project pursuits, particularly in those involving interpersonal activity and, even more specifically, in projects involving groups of others rather than dyadic relationships. Extraverts, in short, appear to thrive on making their projects visible to a larger array of individuals, whereas more introverted individuals restrict their project visibility to more intimate others (Little, Lecci, & Watkinson, 1992).

In some of our recent research with senior managers in the public and private sectors, we have found that women managers are more likely to be given more responsibility for "developing people" projects in their workforces. Yet they are not provided with sufficient support to bring these projects to successful fruition (Phillips, Little, & Goodine, 1996). I will revisit this issue later in the chapter as yet another hill that Jill must climb.

THREE TIERS FOR DEVELOPMENTAL SCIENCE: THE HAVINGS, DOINGS, AND BEINGS OF DEVELOPING SELVES

Personality psychology, in recent years, has been flourishing. McAdams (1996) has pointed to three particularly active areas of research that operate at different levels of analysis. I have depicted these as three tiers of personality research, concerned, in ascending order, with relatively stable traits, personal action constructs, and life stories (Little, 1996). Cantor (1990), invoking terms used earlier by Gordon Allport, has referred to traits and action constructs as the "havings" and "being" of personality. To sustain the gerund form, I think of the third, narrative tier, as concerned with the "beings" or selves that we create as we narrate our life stories to ourselves and others.

I believe this three-tier structure also is a helpful framework for exploring aspects of developmental science, and I wish to illustrate this by providing three examples from recent research. Although drawn primarily from our social ecological framework and projects research, the topics also

incorporate contemporary research in areas that have, until recently, proceeded in isolation from one another. Together these examples illustrate some of the questions being explored and the provisional answers that have been forthcoming in the study of developing selves across the life span. Given their recency, I advance them primarily to stimulate further inquiry.

Tier 1 ("Havings"): Free Traits, Core Projects, and Acting Out of Character

Much of the discourse in developmental psychology and developmental science, more generally, has centered on questions of whether human nature is primarily plastic and mutable or fixed and frozen (Lerner, 1984). As in the field of personality psychology, some of the debate has centered on whether the notions of relatively stable traits or temperamental dispositions are viable constructs. In both personality and developmental psychology, recent scholarship has taken a turn toward acceptance of the notion of relatively enduring stable structures of personality that persist across the life span. More contentiously, some would argue that such fixity may be due to the genetic origin of the trait or temperamental dispositions. Perhaps this is captured most vividly in Costa and McCrae's (1994) invoking of William James's contention that after age 30 personality is "fixed like plaster." Under such a view, the remaining life trajectories of Jill and Ada are, to a substantial degree, shaped by the "fixed traits" that each of them "has" as a relatively invariant feature of self. Our own view, however, is that a stronger case can be made for seeing Jill and Ada as only half-plastered (Little, in press-a).

At the core of our view is the notion of "free traits" (Little, 1996). Indeed, I believe that in developmental science we need a "free trait agreement." It goes like this. Consider a trait such as extraversion, which, under Eysenck's (1970) model, is genetic in origin with a neuropsychological base (although compare Gottlieb, 1992). Extraverts have a resting state of neocortical arousal that is under the optimal level and that impels them to seek out stimulation in order to move up to more optimal processing. Such stimulation can come from environmental engagement in pursuits that are arousing, such as a game of pickup basketball or a social function with gregarious clients. Optimal arousal may also be achieved through direct action upon the central nervous system and the increased neocortical arousal caused by the ingestion of stimulants, such as caffeine.

But extraverted conduct is not just a neuropsychological predisposition, it is also a well-understood social script; we know what is involved in extraverted conduct, and we may find ourselves, unwillingly or not, for good reasons or poor, to be acting in an extraverted fashion. If a "naturally" introverted person engages in such extraverted conduct, we might say that he or she is a "pseudoextravert," and that, in a sense, he or she is acting rather disingenuously. But we might also say that such a person is acting "out of character," and I mean that description to be explicitly ambiguous.

In one sense, "out of character" entails acting in ways that are unnatural or unexpected, as when we say that Ada's reticence was "out of character" (i.e., *against* her character) at the birthday party. But the phrase is also invoked when we say that we did things because we valued them, on the basis of our deep convictions—we acted out of character (i.e., on *behalf* of our character). I believe that much of the perplexity of conduct such as Jill's depicted in this chapter can be explained if we think of individuals as acting in a "free-traited" manner. Such behavior is not necessarily phony. On the contrary, it may be in the service of the individuals' most cherished core projects.

But protractedly acting out of character, I propose, may exact a cost; it may put a person at risk for emotional burnout. Jill can be a pseudoextravert for a few hours every week because, despite her growing frustration, a core-valued project for her is "honoring my obligations to the firm." We can speculate on some of the factors that might increase the risk of burnout when an individual engages in free-traited behavior. Certainly being forced or coerced to engage in such behavior rather than its stemming from more autonomous choice will increase the likelihood of its leading to burnout.

In the case of Jill's pseudoextraversion, there is an additional twist. As a "true" introvert, Jill has a need for lower-than-normal levels of stimulation in order to work most effectively on her engineering tasks. To the extent that she is engaged in the highly evocative and overarousing social functions that have been thrust upon her, she is likely to be overstimulated neocortically. But she is also likely, because of the loose coupling between neocortical and autonomic arousal, to experience signs of anxiety and increased physiological markers of stress.

What can be done to mitigate the effects of free-traited behavior? One suggestion is that individuals might find restorative niches in which they can seek respite from overstimulation by escaping to places of lesser intensity (Little, in press-a). Clearly the affordance structure of Jill's office

environment is critical here. If there is literally no place to which she can escape (a closed door being an invitation to others to rush in with tongues clicking), a long-term toll may become inevitable.

I suspect that free-traited behavior emerges in the course of identity formation and is one of the more subtle ways in which self-development proceeds. Theoretically, each of the currently influential Big Five factors of neuroticism, extraversion, openness, conscientiousness, and agreeableness (and their contrasting poles) can be engaged in a free-traited fashion. It should be noted that by invoking core projects as the justification for acting "out of character," I have linked Tier 1 for a developmental science with Tier 2. It is to this level that we now ascend.

Tier 2 (Action): Personal Projects and Probable Selves—Wisdom, Ripeness, and the Temporal Ecology of Self-Focus

Tier 2 research in both personality and developmental psychology is concerned with dynamic, contextually sensitive units of analysis. McAdams (1996) refers to these units as *personal concerns*; others prefer the term *goal units* (e.g., Nurmi, 1993). My own preference is to regard these units as *personal action constructs* (PAC units), a term that underscores the "personal" aspect common to both personal constructs and personal projects and the natural affinity that such research has with action theory (Little, 1987).

I have already discussed personal projects in detail; I want to focus here upon two issues of direct concern to the overall theme of this book. First, I will examine a particularly interesting category of project that was anticipated in the discussion of free traits at Tier 1: These are what we call *intrapersonal projects*. They are a relatively frequent kind of project, particularly among university students, annd they concern explicit attempts to change the self, to influence one's own psychological dispositions.

Examples of intrapersonal projects are "be more outgoing with my clients," "try not to get angry at the kids for being away all the time," and "be more open to others." They are perhaps the best example of projects as "carrier units" for identity and self-development. The correlates of generating a relatively high frequency of intrapersonal projects show two interesting, divergent patterns. On the one hand, research in our own laboratory as well as in Helsinki (Salmela-Aro, 1992; Salmela-Aro & Nurmi, 1996) has shown that a high frequency of intrapersonal projects is

associated with depressive affect. On the other hand, a high frequency of such projects has also been shown to correlate with creativity (see Little, 1998). This raises the important question of what characteristics differentiate intrapersonal self-focused projects that are depressogenic from those that lead to greater self-exploration.

Although we do not have empirical evidence on this point as yet, I suspect that whether the project was initiated by self or others will be critical in determining whether it will have a positive or negative impact on well-being. Jill's self-initiated attempt to be more outgoing in the service of a core project might well represent her creative openness to expanding her self into an area she has shied away from in her younger years. If the project is laid down by others as a condition of continued employment, one can see how it could lead to ruminative worry and apprehension. Intrapersonal projects are likely to be successful, we anticipate, when they occur as personal experiments with the self rather than as begrudging attempts to change one's nature at the behest of others.

A second theme relates to the conjoint use of different PAC units, specifically personal projects and Markus and Nurius's (1986) "possible selves." In one of our studies with university students, we first elicited a description by each student of a "desired possible self" set 5 years into the future. Each student then completed a PPA matrix containing, on top of the standard dimensions, an ad hoc column labeled "possible self facilitation." It asked the respondent to rate each personal project on the extent to which that project helped facilitate the acquisition of the possible self he or she had previously listed. We anticipated that well-being measures would correlate significantly with the extent to which students indicated that their current projects were facilitating the acquisition of their desired possible selves. This was confirmed (Goodine, Little, & Sourani, 1993).

However, there was an instructive age effect that moderated the results. The linkage of current projects to possible selves (5 years in the future) was particularly strongly related to well-being for the younger, typically first-year students. However, for older students, typically those returning to university after being in the workplace for a period of time, there was no relationship. Rather, the best predictor of well-being for this group was the extent to which their current projects were high on *self-identity*.

It appears that there are temporal ecological factors at work here. For the younger students, hitching their projects to their future selves was salutary. For the older students, their current selves (perhaps the possible

selves of 5 years ago) were most salient. It is as though they were, like Jill, saying, "If I'm not finally being myself now, maybe I'd better get out of here." Ripeness and readiness, key Shakespearean themes, thus appear to be similarly central in the lives of our students. At a certain point in adult development, the time for testing the fidelity of the self comes due, and the distant future becomes a distracting diversion.

Tier 3 (Life Stories): Personal Contexts and the Larger Picture—Images and Idio-Tapes

In both personality and developmental psychology, narrative accounts, with the life story as the central organizing theme, have come to play an influential role (e.g., McAdams, 1996; Sarbin, 1996). It is at this level that the processes of self-formation and identity are of focal, rather than peripheral or derivative, interest. I wish to make some observations about this level of analysis designed to contribute to its continued development, but critical of one of its drawbacks.

Even since my first year of teaching, I have used personal sketches in my courses in personality and developmental psychology. On the first day of the course, students choose pseudonyms and produce two-page single-spaced typed life stories that capture what, to them, are the most salient images of their lives (the students are warned to conceal any identifying information). On the second day of class these life stories are distributed to all students, with the pseudonyms protecting anonymity. The results are almost invariably dramatic. Other class members become something more than background shadows. They become central characters with stories to tell that are as various as the selves that created them—some tragic, some hilarious, many poignant. During the courses in which sketches are used, students create journals in which they apply the lecture and reading material to their own sketches, often going back and revisiting earlier entries as their knowledge of human development becomes more sophisticated. I have managed to keep copies of most of these narrative sketches gathered over the years. Apart from their value as personal documents and as pedagogical tools, they also leave a rich trace of the historical record of the time.

What becomes clear, in reading them, is that they provide a framework for discussing the *personal contexts* of students' lives at different stages of development. Although McAdams (1996) has provided a rich framework

through which life stories can be evaluated, there is one problem that we have had in trying to study personal sketches, and that is the tendency for a large number of the sketches to depict very similar thematic plots. The possibility that this represents stylistic convention rather than idiosyncratic portrayal of individuals' life contexts suggests that we may need alternative ways of capturing these stories without resorting to formal essays. In addition, there is the problem of sheer volume and the intensive parsing and coding required to study identity through the open-ended narrative form. In short, there is a winnowing problem: From the abundance of themes that might be depicted, can we provide a lens through which we can view only the most evocative and defining ones?

We have begun to explore one way of dealing with this winnowing problem. We call it the *idio-tape technique*. We ask individuals to imagine that they have video cameras through which they are going to "shoot" their most important personal images. There are no restrictions on the nature of the images; they may be images of themselves, of their loved ones, or of historic events with which they have identified—even purely imaginary images, as long as they are personally evocative for them and help convey a sense of their identities. Each image, which now serves as the winnowed-down unit of analysis, can then be rated on relevant dimensions, such as how enjoyable it is and how "far away" the image is (from up close to quite distant). Also, it is possible to juxtapose idio-tape images with units gathered at the other two levels of analysis and ask a respondent to describe the relationships between them. (Further details on this method are provided in Little, 1998, in press-a.)

Perhaps the most important additional information that is generated by this technique relates to images of intimate relationships with others. Were we to ask Ada to tell us her personal projects, she may not include anything specifically relating to Jack, or her cat, feeling that these are too fleeting and insubstantial to qualify as "projects." However, as idio-tape images such pictures often play a central role, suggesting the technique may provide important information complementing that gathered in research with the other tiers.

Finally, Sarbin (1996) has written eloquently about what he calls the "poetics" of identity, in which historical myths and cultural scripts trans-mitted generationally become major instigators of personal action. Various forms of criminal and terrorist activity often reflect, in considerable detail, the scripts that have been transmitted in narrative form through children's stories and popular accounts of heroes and villains.

From Personal Projects to Social Policy: Gender, Climate, and the Community

We have recently expanded our research on human development and personality into the domain of organizational analysis and social policy in a study of the personal projects of senior-level managers in the public and private sectors (Phillips, Little, & Goodine, 1996, 1997). Some of the most important findings relate to gender and organizational life.

First, we found clear evidence that women are expected to undertake "managing people" projects more often than are their male counterparts, but they are not provided the organizational support they need to carry these projects through to completion. In short, the scenario with which we began, with Jill feeling imposed upon to be the "designated person special-ist" in her organization, was not an arbitrary image. It appears to be a common feature of the life of many organizations.

Second, there is very clear, indeed striking, evidence that there are major gender differences in the extent to which senior managers see their personal projects as linked with their organizational climates. When linkage is measured as the degree of association between ratings of one's projects and ratings of one's departmental climate, we found that the linkage for women was threefold higher than that for men. For these women, personal project appraisals were intimately linked with their perceptions of the micro-climates within which they unfolded. For men, these appraisals were essentially independent.

There are several possible explanations for this. The effect was found first in the Canadian public service and was replicated with even stronger results in the private sector companies. However, it was not detected in municipal-level government agencies. It may well be that this is not a gender effect, as such, but the adaptive scanning of the milieu by individuals who are marginalized (perhaps by being members of a minority group) in a large organization. This explanation is consistent with the fact that in the municipal sample there was virtual gender parity and the greatest gender discrepancy was in the private sector domain, where there are fewer women in management positions.

Finally, when we probed the links between respondents' personal pro-jects and their possible selves "5 years from now," one of the most pervasive themes we found for women was their desire to get involved in voluntary activities. They saw themselves as becoming active in their communities and as expecting to gain considerable pleasure from doing so. We are

currently interviewing these subjects, 5 years later, to see if their strong desires to contribute to community action have had a chance to materialize. Interestingly, the other theme that showed up frequently in plans for retirement among these senior managers (as well as in their current project lists) was gardening. It might be suggested that both volunteering and gardening represent nurturing activities; perhaps these individuals felt that such nurturing had been stifled in their work organizations, and they now see such activities as viable possible projects.

We have made policy recommendations that organizations in public service provide greater opportunities for staff to become engaged in voluntary activities (Phillips et al., 1997). The increase in "social capital" provided by such activities redounds to everyone's benefit, and the research investment from our university in monitoring the effectiveness of these pursuits is consistent with other innovations that link the needs of children, organizations, and universities (e.g., Lerner & Galambos, 1998).

So, to round out the narrative. I would like to think that Jill has been struggling with a number of issues highlighted in this chapter. She has been asked to play the role of a pseudoextravert in social activities that are overstimulating and more manipulative than nurturing. I have had word that she has indeed switched companies and is working for a smaller firm in which there are more women and a clear expectation of shared respon- sibilities among all staff for all of the major tasks. Competent, analytic, and discerning, Jill still has needs for intimate exchanges that don't involve the playing of games and a tacit agenda of "selling us to the client." I like to imagine that she sees an advertisement for a Volunteer Home Visiting program across town. In my idio-tape version of the conclusion, I see images of her meeting a rambunctious kid named Jack, a decreasingly gangly teenaged Luke, and a wise grandmother who knows her physical limitations and welcomes this kind stranger into their home. Given the vicissitudes of life and the chaos involved in local prediction, however, Jill may simply plant a garden. In either case, new life is nurtured and at least one self is enhanced.

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