

**TOWARDS A NEW VISION AND VOCABULARY ABOUT ADOLESCENCE:  
THEORETICAL, EMPIRICAL, AND APPLIED BASES OF A “POSITIVE YOUTH  
DEVELOPMENT” PERSPECTIVE<sup>1</sup>**

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How do we know if adolescents are doing well in life? What vocabulary do researchers, parents, teachers, policy makers, and often young people themselves, use to describe a young person who is showing successful development?

All too often in the United States and internationally, we discuss positive development in regard to the absence of negative or undesirable behaviors. Typically, such descriptions are predicated on the assumption that children are “broken” or in danger of becoming broken (Benson, 2003), and thus that young people are “problems to be managed” (Roth, Brooks-Gunn, Murray, & Foster, 1998). As such, when we describe a successful young person we speak about a youth whose problems have been managed or are, at best, absent. We might say, then, that a youth who is manifesting behavior indicative of positive development is someone who is not taking drugs or using alcohol, is not engaging in unsafe sex, and is not participating in crime or violence.

Benson (2003) believes that the focus on problems in Americans’ discussions of youth, and the use in the United States of a vocabulary that stresses the risks and dangers of young people, occurs because we have “a culture dominated by deficit and risk thinking, by pathology and its symptoms” (p. 25) and he points out that “Intertwined with this social phenomenon is the contemporary dominance of what is often called the deficit-reduction paradigm. In this paradigm, research and practice are steered to naming, counting, and reducing the incidence of environmental risks (e.g., family violence, poverty, family disintegration) and health-compromising behaviors (e.g., substance use, adolescent pregnancy, interpersonal violence, school dropout)” (p. 24). The deficit model of youth that shapes our vocabulary about the behaviors prototypic of young people results, then, in an orientation in America to discuss positive youth development as the absence of negative behaviors (Pittman & Fleming, 1991)

For instance, Catalano, Berglund, Ryan, Lenczak, and Hawkins (1999, p. vi) noted that “Currently, problem behaviors are tracked more often than positive ones and, while an increasing number of positive youth development interventions are choosing to measure both, this is still far from being the standard in the field.” They go on to note that “A major obstacle to tracking indicators of positive youth development constructs is the absence of widely accepted measures for this purpose...[M]any aspects of positive youth development go unassessed due to the underdeveloped state of the assessment tools” (Catalano, et al. 1999, pp. vi-vii). The absence of an accepted vocabulary for the discussion of positive youth development is a key obstacle to evaluating the effectiveness of programs or policies aimed at promoting such change.

In short, characterizations of young people as problems to be managed or as primarily people in need of fixing reflect a deficit-based belief that there is some shortcoming of character or personality that leads youth to become involved in risky or negative behaviors. Given the presence of such a deficit, the appropriate and humane actions to take in regard to young people are to prevent the actualization of the otherwise inevitable problems they will encounter. Indeed, policy makers and practitioners are pleased when their actions are associated with the reduction of problem behaviors, such as teenage pregnancy and parenting, substance use and abuse, school failure and dropout, and delinquency and violence.

Everyone should, of course, be pleased when such behaviors diminish. However, it is very dispiriting for a young person to learn that he or she is regarded by adults as someone who is likely to be a problem for others as well as for himself or herself. It is very discouraging for a young person to try to make a positive life when he or she is confronted by the suspicion of substance use and abuse, unsafe sexual practices, and a lack of commitment to supporting the laws and mores of society. What sort of message is sent to youth when they are spoken of as

inevitably destined for trouble unless parents or practitioners take preventive steps? How do such messages affect the self-esteem of young people, and what is the impact of such messages on their spirit and motivation?

There are, of course, some words for describing positive behaviors about youth, for example, pertaining to academic achievement, getting along with others, and activities relating to current or potentially successful entrepreneurship. Nevertheless, the vocabulary for depicting youth as “resources to be developed” (Roth, et al., 1998) is not as rich or nuanced as the one available for depicting the problematic propensities of young people (King, et al., 2004, in press). Moreover, there have been relatively few positive indicators to which people may point in order to reflect the desirable, healthy, and valued behaviors among its children and adolescents (Lerner, 2004). This situation is changing, however.

### **A STRENGTH-BASED VIEW OF YOUTH DEVELOPMENT**

In these early years of the twenty-first century, a new vision and vocabulary for discussing young people has begun to emerge (King, et al., 2004). Propelled by the increasingly more collaborative contributions of scholars (e.g., Benson, 2003; Damon & Gregory, 2003; Lerner, Dowling, & Anderson, 2003; Roth, Brooks-Gunn, Murray, & Foster, 1998), practitioners (e.g., Pittman, Irby, & Ferber, 2001; Wheeler, 2000, 2003), and policy makers (e.g., Cummings, 2003; Gore, 2003; Gore & Gore, 2002), youth are viewed as resources to be developed. The new vocabulary emphasizes the strengths present within all young people and involves concepts such as developmental assets (Benson, 2003), positive youth development (Benson, 1990; Little, 1993), moral development and noble purpose (Damon, 1990; Damon, Menon, & Bronk, 2003), civic engagement (e.g., Flanagan & Faison, 2001; Flanagan & Sherrod, 1998; Youniss, McClellan, & Yates, 1999), well-being (Bornstein, 2003), and thriving (Dowling, et al., 2003,

2004; King, et al., in press; Lerner, 2004; Scales, Benson, Leffert, & Blyth, 2000; Theokas, et al., in press). All concepts are predicated on the idea that every young person has the potential for successful, healthy development and the belief that all youth possess the capacity for positive development.

This vision for and vocabulary about youth has evolved over the course of a scientifically arduous path (Lerner, 2004; Lerner, et al., 2002). Complicating any new conceptualization of the character of youth as resources for the positive development of self, families, and communities was an antithetical theoretical approach to the nature and development of young people, one characterized by a deficit view that conceptualized youth behaviors as deviations from normative development (see Hall, 1904). Understanding such deviations was not seen as being of direct relevance to scholarship aimed at discovering the principles of basic developmental processes. Accordingly, the characteristics of youth were regarded as issues of “only” applied concern—and thus of secondary scientific interest. Not only did this model separate basic science from application but, as well, it disembedded the adolescent from the study of normal or healthy development. In short, the deficit view of youth as problems to be managed split the study of young people from the study of health and positive development (Lerner, et al., 2002; Overton, 1998).

Other types of “splits” were associated with this deficit model of youth development. The conception of developmental process typically associated with this model often involved causal splits between individual and context, between organism and environment, or—most generally—between nature and nurture (Gottlieb, 1997; Lerner, 2002; Overton, 1998). In short, scholars studying human development, in general, and youth development in particular, used a theoretical model that was not useful in understanding the integrated, or relational, character of

development (Overton, 1998); the synthesis between basic and applied science; or how young people developed in normative, healthy, or positive ways. However, the integration of person and context, of basic and applied scholarship, and of young people with the potential for positive development were legitimated by the relational models of development that emerged as cutting-edge scholarship by the end of the twentieth century (Damon, 1998).

### **DEVELOPMENTAL SYSTEMS AND INDIVIDUAL ↔ CONTEXT RELATIONS**

The forefront of contemporary developmental theory and research is associated with ideas stressing that systemic (bidirectional, fused) relations between individuals and contexts provide the bases of human behavior and developmental change (e.g., Damon, 1998; Ford & Lerner, 1992; Gottlieb, 1997; Overton, 1998). Within the context of such developmental systems theories, changes across the life span are seen as propelled by the dynamic relations between individuals and the multiple levels of the ecology of human development (e.g., families, peer groups, schools, communities, and culture), all changing interdependently across time (history) (Lerner, 2002). History – temporality – infuses the system of relations between individuals and contexts with the potential for change (Baltes, Lindenberger, & Staudinger, 1998; Elder, 1998).

Developmental systems theory eschews the reduction of individual and social behavior to fixed genetic influences and, in fact, contends that such a hereditarian conception is counterfactual (Gottlieb, 1997, 1998; Lerner, 2002). Instead, developmental systems theory stresses that mutually influential (that is, bidirectional or fused) relations exist among variables from all the levels of organization comprising the individual (e.g., the genetic and physiological) and the contextual tiers that we have noted comprise the ecology of human development (Bronfenbrenner, 1979, 2001, 2005). The fusion of these levels creates a fully co-actional

system (Gottlieb, 1997, 1998, 2004) that, because of the temporality of change derived from the embeddedness of the system in history, makes human development both lawfully probabilistic (i.e., probabilistic epigenetic; Gottlieb, 1997, 1998) and relatively plastic. This concept means that, because of the reciprocity between the individual and the context (which may be represented as individual  $\leftarrow \rightarrow$  context), there is always at least some potential for systematic change in behavior.

The relative plasticity of development means that one may expect that there may be means found to improve human life. Such plasticity legitimizes an optimistic view of the potential for promoting positive changes in humans. As such, plasticity is a strength present within all people. Plasticity directs both science and applications of science—for example, involving public policies and the programs of community-based organizations (CBOs)—to find ways to create optimal matches between individuals and their social worlds in order to capitalize on the potential for positive change in people and thereby promote positive development.

The optimistic view of the potential of the developmental systems model to promote positive human development is linked also to the concept of “developmental regulation,” that is, to the idea that individual  $\leftarrow \rightarrow$  context relations constitute the basic process of change within developmental systems models. Developmental regulations may act to promote variation over time in how an individual interacts in his or her world and/or to promote consistencies in positive behaviors, e.g., continued resistance to engaging in health compromising behaviors. Cairns and Hood (1983) explain that such behavioral continuity may necessitate new means (strategies) at different points in life; thus, plasticity is involved in the production of both change and constancy in human development.

In essence, then, the systemic variability of developmental regulations, produced by the temporality of the developmental system, enables potential plasticity to be instantiated. Our interactions with our contexts can involve new means to positive outcomes and/or finding means to maintain health in the face of new risks (Baltes, et al., 1998; Cairns & Hood, 1983). Thus, the concept of developmental regulation underscores an optimistic view of human potential. The concepts of relative plasticity and developmental regulation frame a conceptualization of a life-span developmental process for positive development, a process that may be labeled as “thriving.”

A young person may be said to be thriving if he or she is involved across time in healthy, positive individual  $\leftrightarrow$  context relations and on the path to what Csikszentmihalyi and Rathunde (1998) describe as “idealized personhood” (an adult status marked by making culturally valued contributions to self, others, and institutions). While the structure of individual  $\leftrightarrow$  context relations (of developmental regulations) remains invariant (e.g., involving bidirectionality and relative plasticity), the components of the individual-psychological and social relational features of individual  $\leftrightarrow$  context relations may show inter-individual and inter-cultural differences as they change over time to comprise the thriving process. Nevertheless, despite individual and contextual variation, Lerner (2004) believes that the probability of thriving can be maximized in the context of developmental regulations that assure individual liberty and that reflect the democratic institutions of civil society. Such relations promote the individual development of the person and support institutions that are designed to protect and further such promotion.

Because of temporality and contextual variation, the instantiation of the relation between individual liberty and civil society may be different across cultures, in different nations, or across

historical epochs. For example, attributes such as competence, confidence, character, social connection, and caring or compassion, which are characteristics that have been labeled as the “Five Cs” of positive youth development (e.g., Eccles & Gootman, 2002; Roth, et al., 1998; Lerner, 2004; Lerner, Fisher, & Weinberg, 2000), are often regarded as healthy outcomes of functionally appropriate (adaptive) developmental regulations in the contemporary United States (Lerner, 2004).

### **The Five Cs of Positive Youth Development**

In our theoretical discussions of the Five Cs (Lerner, 2004; Lerner, et al., in press), we have suggested that they may be latent constructs that capture the essence of to-be-developed indicators of the numerous mental, behavioral, and social relational elements that could comprise positive youth development (PYD). Initially proposed by Little (1993), these theoretical latent constructs were first discussed as four “C”s, i.e., competence, confidence, (positive social) connection, and character. Eccles and Gootman (2002), Roth and Brooks-Gunn (2003a, 2003b), and Lerner (2004) reviewed evidence from research and practice that converges in stressing the use of these Cs and potentially of a fifth C, caring (or compassion), in understanding the goals and outcomes of community-based programs aimed at enhancing youth development.

Derived from this literature, the current working definitions of these Cs are presented in Table 1. As explained below, these definitions frame the measurement model and the structural equation modeling procedures undertaken in the research on PYD we will discuss in this chapter.

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Insert Table 1 about here

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Little (personal communication, March 2000) and Lerner (2004; Lerner, et al., 2003a) have suggested that when these Five Cs are present in a young person there emerges a Sixth C, contribution. That is, a young person enacts behaviors indicative of the Five Cs by contributing positively to self, family, community, and – ultimately – civil society (Lerner, 2004). Such contributions are envisioned to have both a behavioral (action) component and an ideological component (that is, the young person possesses an identity that specifies that such contributions are predicated on moral and civic duty; Lerner, et al., 2003a). In other words, when youth believe they should contribute to self and context and when they act on these beliefs, they will both reflect and promote further advances in both their own positive development and, as well, the “health” of their social world. Theoretically, there will be adaptive individual  $\leftrightarrow$  context developmental regulations.

The developmental course of the ideological and behavioral components of contributions to self and society remains to be determined. For example, given the orthogenetic principle (Werner, 1957), it may be that these components are differentiated (e.g., weakly correlated) in early developmental periods (e.g., at the beginning of adolescence) and become integrated later in ontogeny. However, as we discuss below, there is reason to believe that both positive development and youth contributions to self and to their ecology are likely to take place in the context of community-based, youth development programs.

## **THE POTENTIAL OF YOUTH DEVELOPMENT PROGRAMS TO PROMOTE POSITIVE YOUTH DEVELOPMENT**

Numerous scholars, practitioners, advocates for youth, and policy makers have studied and discussed effective youth programs (e.g., Benson, 1997; Blum, 2003; Carnegie Corporation of New York, 1995; Damon, 1997; Dryfoos, 1990, 1998; Lerner, 2004; Lerner & Galambos,

1998; Little, 1993; Pittman, 1996; Roth & Brooks-Gunn, 2003a, 2003b; Roth, et al., 1998; Schorr, 1988, 1997; Villarruel, et al., 2003; Wheeler, 2003). Although all contributors to this discussion may have their own ways of phrasing their conclusions, it is possible to provide an overview of the ideal features—the best practices--that should be integrated into effective positive youth development programs. It is clear that these features of best practice involve coordinated attention to the youth's characteristics of individuality and to the specifics of his or her social context.

Moreover it is also clear that community-based programs that seek only to prevent problems are not, in the main, successful in promoting the development of the clusters of behaviors associated with the Five Cs of PYD (Roth & Brooks-Gunn, 2003a). Adoption of only a prevention orientation fails in promoting positive youth development because such an effort does not provide the program features -- or more broadly the individual and contextual resources or, what Benson and his colleagues from Search Institute (Benson, 2003, Benson, et al., 1998) term the “developmental assets” -- fostering the thriving youth  $\leftarrow \rightarrow$  civil society relation. What does assure, or at least increase the likelihood, of the provision of these developmental assets, of the engagement of youth with their communities, and of PYD?

Catalano, et al. (1999) define positive youth development and the programs linked to its occurrence as involving attempts to promote characteristics associated with several of the Five Cs or with some of the ecological developmental assets specified by Search Institute (Benson, 1997, 2003). Roth and Brooks-Gunn (2003a) also use the Five Cs as a frame for evaluating the effectiveness of programs aimed at promoting positive youth development.

For instance, programs promote positive youth development when they instill in youth attributes of competence such as self-efficacy, resilience, or social, cognitive, behavioral, and

moral competence; attributes of confidence such as self-determination and a clear and positive identity; and attributes of social connection such as bonding; attributes of character such as spirituality and a belief in the future (Catalano, et al., 1999). In addition, programs promote positive youth development when they enhance ecological assets related to empowerment such as recognition for a young person's positive behaviors, provide opportunities for prosocial involvement, and support prosocial norms or standards for healthy behavior (Catalano, et al., 1999). In this regard, Roth and Brooks-Gunn (2003a) compare programs that seek to promote the Five Cs -- that is programs that are aimed at youth development --with programs that just have a youth focus but are not developmental in orientation and, in particular, are not aimed at the promotion of positive development. Roth and Brooks-Gunn (2003a, p. 217) note that the former, youth development programs are “more successful in improving participants’ competence, confidence, and connections.”

### **The “Big Three” Components of Effective Youth Development Programs**

What are the specific actions taken by youth development programs that make them effective in promoting the Five Cs? Catalano, et al. (1999) find that the preponderant majority (about 75%) of effective positive youth development programs focus on what Lerner (2004) termed the “Big Three” design features of effective positive youth development (YD) programs.

YD programs involving the Big Three provide:

1. Opportunities for youth participation in and leadership of activities; that
2. Emphasize the development of life skills; within the context of
3. A sustained and caring adult-youth relationship.

For instance, Catalano, et al. (1999, p. vi) note that effective positive youth development programs “targeted healthy bonds between youth and adults, increased opportunities for youth

participation in positive social activities, ... [involved] recognition and reinforcement for that participation,” and often used skills training as a youth competency strategy. These characteristics of effective positive youth development programs are similar to those identified by Roth and Brooks-Gunn (2003b), who noted that such programs transcend an exclusive focus on the prevention of health compromising behaviors to include attempts to inculcate behaviors that stress youth competencies and abilities through “increasing participants’ exposure to supportive and empowering environments where activities create multiple opportunities for a range of skill-building and horizon-broadening experiences” (p. 94). In addition, Roth and Brooks-Gunn (2003b) indicate that the activities found in these programs offer both “formal and informal opportunities for youth to nurture their interests and talents, practice new skills, and gain a sense of personal and group recognition. Regardless of the specific activity, the emphasis lies in providing real challenges and active participation” (p. 204).

In this regard, Roth and Brooks-Gunn (2003a) note that when these activities are coupled with the creation of an atmosphere of hope for a positive future among youth, when the program “conveys the adults’ beliefs in youth as resources to be developed rather than as problems to be managed” (p. 204), then the goals of promoting positive youth development are likely to be reached. In other words, when activities that integrate skill building opportunities and active participation occur in the presence of positive and supportive adult  $\leftarrow \rightarrow$  youth relations, positive development will occur.

Blum (2003) agrees. He notes that effective youth programs offer to youth activities through which to form relationships with caring adults, relations that elicit hope in young people. When these programs provide as well the opportunity for youth to participate in community development activities, positive youth development occurs (Blum, 2003).

The role of positive adult  $\leftarrow \rightarrow$  youth relationships has been underscored as well by Rhodes (2002; Rhodes & Roffman, 2003). Focusing on volunteer mentoring relationships, for instance, Rhodes and Roffman (2003) note that these non-parental “relationships can positively influence a range of outcomes, including improvements in peer and parental relationships, academic achievement, and self-concept; lower recidivism rates among juvenile delinquents; and reductions in substance abuse” (p. 227).

However, Rhodes and Roffman (2003) also note that there is a developmental course to these effects of volunteer mentoring on youth. When young people are in relationships that last a year or longer they are most likely to experience improvements in academic, psychological, social, and behavioral characteristics. On the other hand, when youth are in relationships that last for only between six and 12 months, fewer positive outcomes of mentoring are evident. When young people are in mentoring relationships that end relatively quickly, it appears that mentoring may actually be detrimental. Decrements in positive functioning have been reported in such circumstances (Rhodes, 2002; Rhodes & Roffman, 2003).

Of course, parents may also serve as the adults in positive adult  $\leftarrow \rightarrow$  youth relations. Bornstein (2003) notes that the positive influences of parents on their children’s healthy development may be enhanced when parents have several “tools” to facilitate their effective parenting behaviors. These tools include possessing accurate knowledge about child and adolescent development, having good skills at observing their children, possessing strategies for discipline and for problem prevention, having the ability to provide to their children effective supports for their emotional, social, cognitive, and language development. An additional resource for positive parenting is for adults to have their own sources of social support (Bornstein, 2003).

In addition to the “big three” components of programs that effectively support PYD, there are of course other program characteristics that are effective in promoting such development. Among these are the presence of clear program goals; attention to the diversity of youth and of their families, communities, and cultures; assurance that the program represents a safe space for youth and that it is accessible to them; integration of the developmental assets within the community into the program; a collaborative approach with other youth-serving organizations and programs; contributing to the provision of a “seamless” social support across the community; engagement in program evaluation; and advocacy for youth (Dryfoos, 1990, 1998; Eccles & Gootman, 2002; Lerner, 1995; Little, 1993; Roth & Brooks-Gunn, 2003a, 2003b; Schorr, 1988, 1997). However, youth participation, adult mentorship, and skill building are the bedrocks upon which effective programs must be built. Indeed, Scales, et al. (2000), in an assessment of thriving among 6,000 youth participating in the 1999-2000 Search Institute Profiles of Student Life – Attitudes and Behaviors Survey (PSL-AB) of developmental assets, found that spending time in youth programs was the key developmental asset promoting thriving.

### **The empirical composition of the Five Cs and their association with YD Programs**

Certainly, given the idea that participation in YD programs is associated with PYD, a direct demonstration of the relation between participation in youth development programs and positive youth development would be quite significant for planning and implementing efforts to promote healthy adolescent development. However, as made clear in the Eccles and Gootman (2002) National Academy of Sciences report, as well as by other reviews of the literature of youth development (e.g., Blum, 2003; Lerner, 2004; Roth & Brooks-Gunn, 2003a, 2003b), there are relatively few data – and certainly none derived from large-scale longitudinal studies – pertinent to the empirical composition of any of the Five Cs of positive youth development or

contribution, to the role of individual and ecological developmental assets in moderating their development, and to the distinctive role of the programs of community-based youth development organizations in serving as a key developmental asset within the ecology of human development. Similarly, there are no longitudinal data indicating that PYD varies positively with youth contributions and negatively with risk behaviors (e.g., substance use and abuse) or with internalizing problems (e.g., depression, anxiety).

As we explain in this chapter, the 4-H Study of Positive Youth Development constitutes such a large, longitudinal study. A project funded by the National 4-H Council, and conducted within the Institute for Applied Research in Youth Development in the Eliot-Pearson Department of Child Development of Tufts University, the 4-H Study is designed to ascertain whether empirical evidence can be found for the Five Cs of PYD. The study also seeks to describe the individual and ecological asset bases of the Cs, including, in particular, community-based YD programs, such as those of 4-H and others (e.g., Boys and Girls Clubs and YMCA). The potential contributions of youth development programs are contrasted with (a) programs for youth that are not directed to promoting their positive development, e.g., programs that focus on the reduction of a risk behavior (see Roth, et al., 1998); (b) individual activities, such as music or art lessons; and (c) no participation in programs or activities.

In essence, then, the goal of the 4-H Study is to understand the latent and manifest variables that constitute PYD, and the components of the developmental system that combine to enhance the likelihood of positive development and decrease the likelihood of problematic development, that is, that create conditions for healthy functioning at any one point in time (i.e., what we term “well-being;” Lerner, Bornstein, & Smith, 2003b; Lerner, et al., 2003a) and that support the development of exemplary PYD across the adolescent years. The 4-H Study is

interested in understanding what propels the young person along a healthy developmental trajectory (i.e., what fosters the process of thriving; Lerner, 2004; Lerner, et al., 2003a), and thus what leads youth toward an “idealized” adulthood, one marked by effective contributions to self, family, community, and civil society (Csikszentmihalyi & Rathunde, 1998; Hein, 2003; Lerner, et al., 2003a).

Figure 1 presents the theoretical model of the thriving process that we have used to frame the research conducted within the 4-H Study (Lerner, 2004; Lerner, et al., 2003a). Derived from the developmental systems conception that mutually beneficial developmental regulations, that is, adaptive individual  $\leftrightarrow$  context relations, propel a person along a healthy developmental trajectory across life (and that at any one point in time enable a person to be in a state of well-being), the model specifies that when there is an alignment between individual strengths and ecological assets that promote healthy development, the Five Cs will evolve over the course of an individual’s development. This development of the Five Cs will result in the above-noted, idealized adulthood, and thus in the sixth C of contribution, that is, in multifaceted contributions of individuals to their selves and their contexts that maintain and perpetuate adaptive individual  $\leftrightarrow$  context relations.

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In short, Figure 1 illustrates the idea that adaptive developmental regulation results in the emergence among young people of an orientation to transcend exclusive self-interest and place value on, and commitments to, actions supportive of their social system. This regulatory system enables the individual and individual initiative to prosper. As such, it is this relation—between

an individual engaged in support of a democratic system that, in turn, supports the individual-- that is the essence of the mutual, individual  $\leftarrow \rightarrow$  context benefits defining healthy developmental regulation.

In sum, this vision of the development and import for self and society of exemplary positive development, or thriving, among youth, frames the 4-H Study. Predicated on the optimistic view of young people, and on the belief that all youth have strengths, and that in all contexts developmental assets may be found to combine with youth strengths in order to actualize positive developmental potentials, the 4-H Study is designed to generate heretofore unavailable longitudinal data elucidating how community-based YD programs contribute to the positive, healthy course of development among American youth. As we explain, such information is vital and timely.

#### **THE 4-H STUDY OF POSITIVE YOUTH DEVELOPMENT**

American youth, and the nation that seeks to nurture and support them, face a set of problems of historically unprecedented scope and severity that, together, limit the opportunities for active and constructive participation by young people in community life and civil society. Estimates are that 50% of American youth engage in two or more of the four major categories of risk behaviors (substance use and abuse; crime and violence; unsafe sex and teenage pregnancy and parenting; and school failure) and that 10% engage in all four sets (Dryfoos, 1990, 1998; Perkins & Borden, 2003). Moreover, since the 1980s there continues to be a strikingly alarming rate of youth poverty--involving a fifth of the children and adolescents in the United States. Rates of all of the above-noted problem behaviors are higher among poor youth (McLoyd, 1998).

It is clear, then, that American communities need to have greater access to existing effective youth-serving programs. Furthermore, given the unprecedented scope of the

contemporary challenges to the healthy development of American children and adolescents, new efforts must be devised, studied and, if effective, sustained (e.g., through new social policies; Lerner, 2004). If the developmentally nurturing resources, or developmental assets, possessed by communities are integrated on behalf of youth, as identified in developmental systems theories, this potential may be realized; that is, positive development may be promoted.

The longitudinal, 4-H Study of Positive Youth Development began with youth in the fifth grade and assesses – through use of a measurement model that operationalizes the Five Cs of positive youth development (PYD) and, as well, the Sixth C of contribution -- characteristics of young people theoretically believed to be key facets of PYD. The research evaluates also the impact on PYD of key ecological assets--families, communities and, in particular, community-based programs for youth--especially 4-H youth development programs.

Although the 4-H Study is designed to follow fifth graders through their adolescence and has completed its second wave of testing, at this writing the research has completed analyses only of the first wave of data collection (i.e., the 2002-2003 Wave). As such, in this chapter we summarize the cross-sectional information presently available. These data will not enable us to specify the developmental course of the Five Cs, since only change-sensitive data (e.g., data derived from longitudinal research) can do this. Accordingly, in the present chapter we evaluate the unitemporal status of the Five Cs (and thus, in regard to the model presented in Figure 1, appraise well-being). These analyses provide a baseline for subsequent reports of developmental change in both PYD and for the association between youth participation in community-based, youth development programs and the presence of the Cs of PYD.

We discuss findings that addresses three questions about the unitemporal patterns of covariation present within the Wave 1 4-H Study data set: (1) Is there empirical evidence for the

conception that PYD may be instantiated by the Five Cs of competence, confidence, connection, character, and connection?; (2) Is there empirical evidence for the theoretically-specified relation between PYD and (a) self and context contributions and (b) lower risk behaviors?; and (3) Is there evidence that YD programs – as potentially key instances of the developmental assets present in the ecology of adolescent development – are associated with PYD, contribution, and lower risk behaviors?

### **Methods of the 4-H Study**

In the first wave of the 4-H Study (2002-2003), we secured cooperation from sites in 40 cities or towns located in 13 states that, together, provided regional, rural-urban, racial/ethnic, and religious variation. In turn, in order to identify the association between community-based YD programs and PYD, we sought also to develop a sample that would reflect variation of youth participation in such organizations and in other types of school- and community-based youth activities (i.e., in programs that did not have a youth development mission or in individually focused youth activities). We sampled also youth who were not involved in any individual or group activity.

### **Participants**

Given our interest in ascertaining if PYD varies positively with the development of contribution and negatively with the appearance of risk behaviors and internalizing problems, and if youth development programs promote PYD and prevent or delay the emergence of problem behaviors and/or slow their growth, the study was launched with fifth graders in order to obtain baseline levels of behaviors from which to measure change over time. The literature shows that one may expect low levels of risk among youth of this grade level (e.g., Dryfoos, 1990; Perkins & Borden, 2003).

Accordingly, Wave 1 youth participants were a diverse group of 1,700 fifth grade adolescents (47.2% males; mean age = 11.1 years, SD = .53 years; 52.8% females, mean age = 10.9 years, SD = .46 years) and 1,117 of their parents (82.5% mothers, mean age = 38.4 years, SD = 6.8 years; 13.9% fathers, mean age = 41.6 years, SD = 6.2 years; only one parent per student was sampled). Other adults who completed the survey were grandparents 1.3%, other adults .4%, stepmothers .4%, stepfathers .2%, and foster parents .2%. The remaining 1.2% of adults did not specify their relation to the child. The overall rate of parent (or other adult) participation was 65.7%. The sample was predominantly Catholic (50.0%) or Protestant (18.7%); educated (more than 67% of the sample had at least some college education); from families with two, married parents (73.5%); European American (57.9%), and at least middle income (e.g., 58.8% of the youth lived in families that reported incomes of at least \$45,000 a year). Complete details about the demographic characteristics of the participants and their families are presented in Lerner, et al. (in press).

### **Study sites**

Wave 1 data were collected in 57 schools and in four after school programs. The schools varied in type (public/private), size, grades and students served, and along various socioeconomic characteristics (e.g., percent students eligible for free or reduced lunch). Moreover, the schools were distributed fairly evenly across four regions of the country: Northeast, North Central, South, and West. The four after school programs were located in diverse urban communities, and served primarily minority and low-income children and families.

### **Measures**

The measurement model used to initiate this study was designed to provide indices of the six Cs of PYD, of risks and problem behaviors, and of the purported individual and ecological

assets theoretically linked to the development of the Cs and the diminution of problem behaviors among youth. To index constructs related to developmental assets we relied on the Search Institute PSL-AB survey (Benson, 1997, 2003; Benson, et al., 1998). Given the person  $\leftrightarrow$  context systems model framing our approach to the study of adolescence, we also attempted to assess the regulation of mutually influential relations between youth and their contexts. This assessment included both indices of current regulatory functioning and goal oriented behaviors. The key measure used here was the Selection, Optimization, and Compensation (SOC) questionnaire (Freund & Baltes, 2002; Freund, Li, & Baltes, 1999)

In addition to standard demographic questions about youth and their families (sex, date of birth, race/ethnicity, household composition, number of years in current neighborhood, and time spent without an adult present), items were included also to assess youth participation in activities and involvement with community-based organizations. Finally, given that pubertal variation and ego development have been linked repeatedly within the adolescent literature to a range of positive and problem behaviors in adolescence (Nurmi, 2004; Susman & Rogol, 2004), we assessed these constructs for exploratory purposes.

Our measures were embedded in one of two questionnaires. A Student Questionnaire (SQ) was composed of measures pertinent to the Cs of PYD, problem behaviors, pubertal level of development, individual and ecological assets, developmental regulation, activities, and demographics. One parent/guardian per youth participant was asked to complete the Parent Questionnaire (PQ) for each child participating in the study. The PQ was composed of two types of items: (1) Items about the parent/guardian and (2) items about the child. Items about the parent/guardian included relationship to the child; age; sex; current marital status; race/ethnicity; religion; health status; education level; mother's education level (if the person completing the

survey was not the mother); number of years spent in their current neighborhood; SES; number of children in the household; number of people in the household; primary language spoken in the household; and importance of religion in the participant's family life.

Items about the child included: birth date; birth order; height; weight; race/ethnicity; religion; hours of sleep per night; and clubs, groups, and activities in which the child participated in, both now and in the past. The list of options for these activities included: 4-H Clubs; Boys Clubs/Girls Clubs; YMCA/YWCA; Girl Scouts/Boy Scouts; Big Brother/Big Sister; religious youth groups; school band; martial arts, acting/drama; dance; music; arts/crafts; academic clubs; school government; religious education; sports; after-school child care program; volunteer work; paid work; mentoring/peer advising; tutoring; and others. Many of these items were included in the PQ in order to cross-validate the information provided by the child.

Tables 2 and 3 present the measures included in the SQ and the PQ, respectively. Across the questionnaires, measures were combined to provide indices of the latent constructs on interest in the 4-H Study (e.g., the Five Cs, PYD). As explained below, this combination was an iterative process, as we sought to use our data set to identify a measurement model of the latent constructs that maximized goodness-of-fit with our theory. Table 4 presents the measurement model employed finally to index each of the Cs. The several steps followed to arrive at the measurement model for the Five Cs and PYD are discussed below.

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Insert Tables 2, 3, and 4 about here  
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## **Results**

This analyses of the 4-H Study Wave 1 data were conducted to bring information to bear on the developmental systems view of the thriving process shown in Figure 1. In our initial analyses we focused on testing the empirical validity of the conception of positive development as instantiated by the Five Cs, and proposed a measure of contribution for 5<sup>th</sup> graders that could be analyzed in relation to PYD. Future reports from the 4-H Study, which will capitalize on the longitudinal design of this research, will extend model testing to include the relationship between assets, contribution, and the growth of the Five Cs.

Descriptive analyses were conducted first to determine whether there was systematic variation in the measures described above with selected youth and parent background variables: sex, race/ethnicity, and social class. Accordingly, correlations were computed among the youth and parent background variables, such as youth sex, youth race/ethnicity (recoded as European American/non-European American), household income, mother's education, and number of children in the household. Youth sex was not correlated with the other variables. Household income and mothers' education were significantly and positively correlated and both were negatively correlated with the number of children in the household. Being European American was positively correlated with household income and mothers' education and negatively correlated with number of children in the home.

Hierarchical multiple regression analyses were computed for each scale score as the dependent variable and sex, race/ethnicity, household income, mother's education, and number of children in the home as a set of independent variables. In addition, two-way interactions between race/ethnicity and sex, and race/ethnicity and household income were tested as a second set of independent variables. Race/ethnicity was assessed through the use of three dummy variables (European American, African American, Latino/a vs. the reference category of all other

designations). These analyses are based on participants whose parents answered the PQ, with a maximum sample size of 1,117.

Because there were 48 measures included in these analyses, the significance level was adjusted to control for Type I error. Starting with a  $p$ -value of .05, we adjusted our  $p$ -value to be .001, using the standard correction of  $p\text{-value}/N$  of analyses (.05/48). Using this corrected  $p$ -value, none of the 2-way interactions were significant. Number of children as a variable also was dropped from the analyses because it never added a significant proportion of variance after other variables were included.

Youth sex and household income were significantly related to the measures in expected ways: Girls have higher scores for, and household income is positively related to, most of the measures. Once household income is controlled for there remained a few significant relationships with race/ethnicity. The race/ethnicity effects that were present show that Latino/a fifth graders reported greater parent involvement, value interpersonal relationships and skills, valued diversity in their relationships, and thought about the future more than fifth graders from other groups. Compared to other youth, African American fifth graders reported lower support from peers, and engaged in more delinquent behaviors but reported greater risk avoidance. European American fifth graders reported higher perceived social and physical competence, and greater self-worth than youth in the other race/ethnicity groups. Future work will explore the complex relationships among these variables within our model of positive youth development.

### **PYD and the Five Cs**

As we have noted, specification of the measurement model of the Five Cs proceeded through multiple steps. First, an extensive literature review was conducted to identify a set of measures that would serve as indicators for each of the Five Cs. Second, these measures were

assessed in a pilot study involving 339 youth from five cities and towns in Massachusetts. Scales were assessed in relation to their ability to capture the essential definitions of the Five Cs developed for use in this study (see Table 1). Following the evaluation of the pilot results, the survey was revised to better represent the constructs. Third, and concurrent with Wave 1 data collection, the factor structure of internal and external developmental assets, as measured by the Search Institutes' PSL-AB measure (Benson, et al., 1998), was reevaluated and restructured to reflect both empirical and substantive considerations (see Theokas, et al., in press). These modifications lead to revisions of the initial measurement model.

To accomplish these revisions, several of the authors independently categorized all scales included in the SQ as either an index of one of the Five Cs, an index of the sixth C of contribution, an index of internal assets, an index of external assets, an index of regulation, or as not relevant to any of the constructs (e.g., pubertal maturation, race, and sex were constructs placed by all authors/raters into this last category). When at least 80% of all raters categorized a measure as reflecting one of the constructs, this measure was considered as an operationalization of it.

Confirmatory factor analysis (CFA) was conducted to assess the degree to which the Five Cs/PYD model fit the data. Model-fitting analyses were conducted to assess the adequacy of the a priori model; subsequent analyses were used to assess model improvement following theoretically-sound modifications. LISREL 8.54 (Jöreskog & Sörbom, 1996a), using Maximum Likelihood (ML) estimation on raw data within a PRELIS 2.0 (Jöreskog & Sörbom, 1996b) file, was used for all CFA analyses.

The initial model contained 19 manifest indicators, five first-order latent factors, one for each of the Five Cs, and one second-order latent factor, representing the PYD construct. All

hypothesized pathways were significant but the model had a relatively poor fit ( $X^2 = 1933$ ,  $df = 147$ ; RMSEA = 0.085; GFI = 0.89; CFI = 0.94; NNFI = 0.94). The Five Cs/PYD model was therefore retained and subjected to model-improving modifications.

Inspection of the modification indices suggested several changes to improve model fit. Considering that we found high intercorrelations among the indicators, modifications to allow correlated residual errors among the indicators were implemented. Specifically, residuals from three indicators, Social Competence, Academic Competence, and Self-Worth, were allowed to correlate on the assumption that scores on these scales, having all come from the Harter SPPC scale (Harter, 1998), shared method variance not accounted for by the model. The freeing of these residuals resulted in a significantly better model ( $X^2 = 1455$ ,  $df = 144$ ;  $p < .01$ ; RMSEA = 0.073; GFI = 0.92; CFI = 0.96; NNFI = 0.95).

Next, residual errors were allowed to correlate between indicators within factors. Consistent with the definitions presented by Roth and Brooks-Gunn (2003a), within Competence, residuals between Grades and Academic Competence and between School Engagement and Social Competence were allowed to correlate. Within Character, residuals between Personal Values and Social Conscience and between Values Diversity and Interpersonal Values were allowed to correlate. Within Caring, residuals between Sympathy for Disadvantaged and Sympathy for Unfortunate and between Sympathy for Rejected and Sympathy for Loneliness were allowed to correlate. Finally, within Connection, residuals between Connection to Family and Connection to Community and between Connection to School and Connection to Community were allowed to correlate. All together, these modifications significantly improved model fit ( $X^2 = 662$ ,  $df = 136$ ;  $p < .01$ ; RMSEA = 0.048; GFI = 0.96; CFI = 0.98; NNFI = 0.98).

The modification indices suggested that for the revised model indicated that model fit could be further improved by correlating two more pairs of residuals: Positive Identity with Academic Competence and Positive Identity with Social Competence. Such relations may reflect the theoretically and empirically established relations between adolescent achievements in academic and social areas and their positive self-regard (e.g., Brown, 2004; Eccles, 2004; Harter, 1998). Following these modifications, model fit was again improved ( $\chi^2 = 552$ ,  $df = 134$ ;  $p < .01$ ; RMSEA = 0.043; GFI = 0.97; CFI = 0.99; NNFI = 0.98). These modifications, however, were not sufficient to specify a model that optimally fit the data.

Inspection of the revised modification indices suggests that additional structure in the relationships among the first order factors has not been exhausted by either the correlated residuals among the respective indicators or their respective loading on the second-order factor of PYD. Specifically, two pairs of first-order factors, Confidence/Competence and Character/Caring, continued to share variance not accounted for by the model. Rather than specifying additional structure to the model, we retained the more parsimonious model described below, and allocated additional refinement of and evaluation of sample specific effects on the model to future waves of the 4-H study – waves that would allow us to take advantage of longitudinal data and retest control samples for purposes of cross-validating the model (cf. Browne & Cudeck, 1993; Cudeck & Browne, 1983).

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Insert Figure 2 about here

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The retained model is depicted in Figure 2. While the model Chi-Square was significant at 4-times the model degrees of freedom ( $\chi^2 = 552$ ,  $df = 134$ ,  $p < .01$ ), it is sensitive to sample

size. With large sample sizes, the  $\chi^2$  statistic becomes unreasonably powerful at detecting discrepancies between the model and the data and under realistic conditions perfect model fit is not to be expected (Bollen, 1989, pps. 266-269). Following prior recommendations (e.g., Raykov, Tomer, & Nesselroade, 1991; McDonald & Ho, 2002; Tomer & Pugeseck, 2003), we evaluated a variety of fit indices. For this model, the Goodness-of-Fit index (GFI, Jöreskog & Sörbom, 1996a), a measure of absolute fit, was 0.97, well above the 0.90 minimum criterion of close fit suggested by Hoyle and Panter (1995). The Comparative Fit Index (CFI, Bentler, 1990) was 0.99, suggesting that the specified model is 99% better than an independence model where all observed variables are assumed to be uncorrelated. Likewise, the Non-Normed Fit Index (NNFI, Bentler & Bonett, 1980), which takes into account model complexity and performs well with large sample sizes was 0.98, again indicating close fit. Finally, the Root Mean Square Error of Approximation (RMSEA, Steiger & Lind, 1980), which is a measure of fit per degree of freedom and is sensitive to model misspecification (Hu & Bentler, 1995), was 0.043 with a 90% confidence interval of 0.039 to 0.047. A value of .05 or less indicates a close fit (Browne & Cudeck, 1993).

Standardized factor loadings for the 19 manifest variables ranged from .43 to .91, indicating that the Five Cs factors accounted for 18% to 83% of the indicators' variance. In turn, the second-order factor of PYD accounted for an average of 60% of the variance in the latent factors for the Five Cs. This explained variance (or common variance) ranged from 24% for Caring to 83% for Connection.

Latent factor scores for the Five Cs and PYD were calculated in LISREL 8.54 for use in remaining analyses (Jöreskog, Sörbom, du Toit, & du Toit, 2001). These scores should be treated with caution since they are indeterminate, with individual-level rank ordering on a

specified factor varying widely depending upon how the scores are calculated (Bollen, 1989). It should be noted, however, that correlations between the LISREL-computed factor scores and mean scores calculated from the standardized indicator variables (so called “coarse factor scores,” e.g., Grice, 2001) were all high ( $> 0.93$ ).

In addition, hierarchical multiple regression analyses were computed using factor score as the dependent variable and sex, race/ethnicity, household income as predictor variables to provide comparable background information as for the indicator scale scores. Girls have higher scores than boys on caring, character, competence, connection, and PYD. European American and Latino/a youth have higher confidence scores than other youth. Youth from families with higher incomes have higher scores on all but the caring constructs. These scores, therefore, appear to be reliable and to have some predictive validity.

### **Youth Contribution**

Using the indicators of contribution present in the Wave 1 data, two measures were constructed which are distinct and which match the definition of contribution we have used in our work (Lerner, 2004; Lerner, et al., 2003a), i.e., that within adaptive individual  $\leftrightarrow$  context developmental regulations there is both an ideological and a behavioral component to youth contributions. The first measure reflects ideology of contribution and was obtained by coding responses to two open-ended questions. These questions asked youth to describe themselves as they would like to be and as they actually are, in terms of what they are like and what sorts of things they do. Responses that reflect a desire for or commitment to giving back to the world around them were coded as absent (0), present (1), or important (2). The second measure pertains to the behavioral component of contribution, and describes the amount of participation in activities that reflect active engagement with the world around oneself such as being a leader

in a group, helping friends and neighbors, participating in school government, sports, religious youth groups, mentoring, and volunteering in the community.

The items used to measure contribution were considered a variable set and a sum score was computed for all youth with the ideology and participation scores equally weighted. Higher scores represent a composite indicating more involvement in contribution activities and/or an ideology of giving back to the world around oneself. This sum score was analyzed as an outcome regressed on youth sex, race/ethnicity, and household income and then compared with factor scores on each of the five Cs and PYD. Because fewer parents answered the questionnaire, the sample size drops significantly when household income is included in the analyses so the results are displayed with and without household income. When included in the analyses, household income is significantly and negatively related to contribution in fifth graders. However, the results are nearly identical for the other variables whether or not income is controlled for.

Females have significantly higher contribution scores than males and there are no significant differences for the race/ethnicity variables. PYD is significantly related to contribution when the background variables are controlled for. When the Five Cs are entered as a group instead of PYD, the joint contribution is significant (e.g., the change in  $R^2(5, 1047) = .037, p < .001$  without controlling for income). The pattern for the individual Cs varies somewhat when income is not included: confidence and character are significantly related to contribution when income is not controlled for; and competence alone is significant when income is controlled for. This difference is likely due to sample size variation with the inclusion of parent variables.

These results provide empirical support for the theoretically-specified relationship between PYD and the Five Cs and contribution. Of course, these results represent a one-time

pattern of covariation among the constructs. The longitudinal data from the subsequent waves of data collection to occur within the 4-H Study will permit assessment as to whether PYD and/or particular Cs at an earlier point in time predict the growth of contribution beyond any within-time relationships among the constructs. In addition, such data will enable analysis of the reverse direction of influence seen as possible within the developmental systems theoretical perspective, that is, contribution at an earlier time may promote positive growth (Lerner, 2004). In fact, if youth are engaged in community-based, youth development programs that foster civic engagement, the development of positive behaviors and the diminution of risk behaviors would, in fact, be expected. The final set of analyses conducted to date with the Wave 1 data were aimed at appraising the association of participation in such YD programs with PYD, risk reduction, and contribution, and will elucidate this possibility.

### **Youth Development Program Participation, the Five Cs, Risk Reduction, and Contribution**

Given that youth development programs have been identified in theory (Lerner, 2004) and research (Roth & Brooks-Gunn, 2003a, 2003b; Scales, et al., 2000) as key assets in promoting positive development among youth, we address the question of whether the level of participation in YD programs is associated with either PYD or contribution. Our view is that youth development programs promote youth contribution by having the “Big Three” features of effective programs that we have discussed above, i.e., by assuring that the young person has a sustained relationship with at least one committed adult, who provides skill building opportunities to the youth, and acts to enhance the young person’s healthy and active engagement with the context (Lerner, 2004).

To reflect this orientation toward youth development programs, a measure of participation in youth development programs was designed to describe a youth’s maximum depth

of involvement with any of four kinds of programs: 4-H, Boy and Girl Scouts, YMCA or YWCA programs, and Boys' and Girls' Clubs. These programs were selected from among the many activities we asked youth to report on because their mission statements specifically emphasize a positive youth development perspective. Since we were interested in a sustained level of involvement, current and past participation was included and indexed by amount of participation per month in the activity with the greatest level of participation. For example, if a youth was active a couple of times a week in 4-H and went to the Boys' and Girls' Club twice a month, the activity level in 4-H of eight times per month was their participation score. Thus, this measure was developed to assess depth of participation rather than the number of programs in which youth participated.

Three regression analyses were conducted to address the question of the relationships among PYD, participation in youth development programs, and contribution. This analysis was done in an exploratory fashion as a first step toward assessing, while controlling for youth sex and race/ethnicity, whether participation contributes to the relationship between PYD and contribution for the fifth graders in this study.

In this sample, at Wave 1, both PYD and program participation are significantly related to contribution. The relationship between PYD and program participation is not significant. This pattern of results suggests that for this age group, PYD and program participation are each independently related to contribution rather than PYD being moderated by program participation. In addition, analysis of risk behaviors for Wave 1 indicated that, overall, adolescents reported relatively low incidences of substance use and delinquency. In addition, across the sample, the level of depression reported by adolescents was not indicative of risk. Based on the extant literature (e.g., Perkins & Borden, 2003), we expect that in future waves within this study the

incidence and variability of these risk indicators will increase. Such changes will afford a more in-depth analysis of the relationship between the role of youth development programs in promoting the Five Cs and in diminishing problem behaviors. Thus, analyses of future waves of data will allow us to refine this finding and determine if there is a causal link between PYD and program participation and the nature and direction of the link.

### **CONCLUSIONS: INTEGRATING THEORY, RESEARCH, AND APPLICATION**

Data from the first wave of the 4-H Study of Positive Youth Development provide cross-sectional information that constitutes a baseline (foundation) for subsequent, longitudinal reports of the nature of developmental change in PYD, in the ideological and behavioral components of youth contributions, and in the relationships among participation in YD programs, the Cs of PYD, and youth contributions. Building on this foundation, future analyses will further refine the model of the Five Cs presented in this chapter. As an example, the correlations that exist among the Five Cs will be explored, and their significance to the conceptual model of PYD will be addressed. Furthermore, data from future waves of the study will allow for a more comprehensive appraisal of the model presented in Figure 1 and for the assessment of constructs not addressed in this chapter, such as regulation and the role of select individual and contextual assets.

While we provided preliminary, descriptive information about the behavior of all the measures included in the measurement model employed for Wave 1 of the study, the main analyses in the present report focused on only those measures that enabled us to address three issues, i.e., the nature of the empirical evidence for (1) the conception that PYD may be instantiated by the Five Cs of competence, confidence, connection, character, and caring, and assessed in the present report through the unitemporal patterns of covariation available in the

Wave 1 data set; (2) for the theoretically-specified relation between PYD and contribution; and (3) for the purported relations among participation in youth development programs, PYD, and contribution.

The results of the preliminary data analyses suggested that all the previously used measures and the scale scores derived from them behaved as expected, based on prior results reported in the adolescent development literature (e.g., Harter, 1998). Levels of reliability and validity reported in past research were replicated within the Wave 1 data analyses. In addition, the measures that were devised for use in the present research (e.g., the assessment of youth ideology of contribution) were found to possess moderate to high response or coding reliability; the theoretically expected patterns of association between these measures and other assessments within our measurement model (e.g., with the Cs of PYD) suggest the validity of these measures as well.

In regard to differential behavior of the scores in our data set across subgroups of the youth participants, we found that – given the number of preliminary comparisons made and the power of these analyses -- relatively few instances of systematic variation existed in relation to major demographic categories within the sample, e.g., gender, race/ethnicity, household income, and mother's education. Nevertheless, girls more so than boys, and youth with higher family incomes, did tend to show higher scores on the Five Cs and contribution. However, given that these differences reflect unitemporal patterns of covariation, and therefore that their developmental significance cannot be ascertained through cross-sectional analyses, we believe that it is prudent to delay interpretation of the possible significance of such variation pending the replication of these differences in our longitudinal data.

Moreover, even when these few differences arose, they reflected contrasts between groups evidencing overall positive, healthy behaviors. That is, other general findings from the descriptive analyses indicated that the participants in this study were reporting their behavior to be positive and/or healthy. Of course, the location of these central tendencies in our data may reflect the often-reported positive bias in dependent variables associated with people agreeing to participate in a longitudinal study (e.g., Baltes, Reese, & Nesselroade, 1977; Schaie & Strother, 1968) and/or the fact that America's contemporary cohorts of young people exist in a far more positive state than prior deficit-based accounts of today's youth would predict (cf. Benson, 2003).

The viability of these two, non-mutually exclusive interpretations may be better ascertained as the 4-H Study continues its waves of data collection and participants enter the higher risk years of middle and late adolescence (Dryfoos, 1990; Perkins & Borden, 2003) and, in addition, are compared to retest control participants. In any event, we regarded the evidence we found for the psychometric quality of the present set of measures and the magnitude of the comparable behavior of the measures across demographic categories within the sample supportive of the use of these assessment tools in the analyses we conducted to address the three key issues discussed in this chapter.

Turning to the first issue – whether the unitemporal instantiation of PYD that was tested may be represented by the Five Cs – this chapter presents evidence of the empirical reality of these Five “Cs” and of their convergence on a second-order latent variable of PYD. The structural model initially tested in an attempt to verify the presence of these Cs and of PYD was derived from our interpretation of the extant theoretical and meta-evaluation evidence pertinent to the conceptualization of PYD (e.g., Benson, 2003; Damon, 1997; Lerner, 2004; Eccles &

Gootman, 2002; Roth & Brooks-Gunn, 2003a, 2003b; Scales, et al., 2000). While the results of the SEM analyses testing this model proved to be adequate, model fit was substantially improved in the model that derived from, first, a content analysis procedure regarding the specific substantive character of the items involved in the several measures used to assess the Cs and, second, from the subsequent modifications made to the model. Although an ideal model assumes low correlation between the manifest variables, we did not expect this to be the case, as these measures are expected to overlap somewhat conceptually (e.g., self-worth and positive identity should be related). As expected, we found that allowing the residuals of scales within the same latent variable to correlate resulted in a better fit of the model to the data.

Of course, even the revised model can be improved. The apparent shared variance between the first order factors of confidence/competence and character/caring that are not accounted for by the model suggest the presence of an additional structure. There are three potential ways in which these results can be interpreted. First, some of the Cs may represent the same latent construct, resulting in fewer than five Cs. Second, there may be an additional level of latent constructs present in our model, for instance, between the first order factors and the second order factor. Third, these findings may have resulted from the fact that all latent constructs are measured by self-report. For example, our working definition of competence clearly articulates that a purer measure of competence would result if the actions of youth were directly measured. These different possible interpretations of our Wave 1 findings will require cross-validation in subsequent waves of the 4-H Study, as well as in independent research that both uses the present measurement model and other potential indices of the Five Cs.

Furthermore, some of the latent constructs of the revised model are underspecified. As an example, the construct of caring seems not to be conceptually complete, as may be reflected

in the lower correlations between caring and the other Cs -- as compared to the correlations among the other Cs. Steps to improve the model have already been taken in subsequent waves of the 4-H Study. For example, in Wave 2 we added items to improve the measure of caring. This refinement process will continue through future waves of the study. Nevertheless, the current data provide strong, albeit preliminary and cross-sectional, evidence about the empirical reality of the constructs associated with the new vision and vocabulary about healthy youth development (e.g., Benson, 2003; Damon, Menon, & Bronk, 2003; Lerner, 2004; Roth & Brooks-Gunn, 2003a, 2003b).

There are also provocative preliminary findings from the first wave of the 4-H Study that are pertinent to the Sixth C, contribution, and thus to the second key issue of interest we addressed, i.e., the nature of the theoretically-specified relation between PYD and contribution. Both PYD and the Cs were related to the construct of contribution, which was indexed by combining scores for each of the two components of this construct (i.e., of ideology and of action) we believe comprise youth contributions. However, the strength of the relations we identified may be attenuated by the fact that the means by which fifth grade youth in America can contribute to their communities is relatively constricted by prototypic ecological circumstances (e.g., 10 year-old youth cannot drive themselves to community service sites and, in some cases, there is not public transportation that is convenient or even available). Nevertheless, the positive relations found among PYD and contribution are consistent with theoretical expectations (Damon, 1997; Damon, et al., 2003; Lerner, 2004).

Moreover, these theoretical ideas, that suggest that there exists a bidirectional relation between youth civic engagement and thriving (Lerner, 2004; Sherrod, Flanagan, & Youniss, 2002), require time-ordered, lagged data for adequate testing. Accordingly, a key question to be

addressed when at least three waves of data are available within the 4-H Study is the nature of the antecedent-consequent relations between contribution and PYD (thriving), that is, in the civically engaged youth  $\leftrightarrow$  thriving relationship, does one direction of effect lead the other in its influence on the course of development?

Of course, the opportunity for youth to contribute to their communities often occurs within the context of their participation in community-based, youth development programs. As such, the third key question addressed in this chapter was about the association between participation in youth development programs, PYD, and contribution. As with the engaged youth  $\leftrightarrow$  thriving relationship, data fully adequate to address this question must be, at the least, longitudinal in character. Nevertheless, the Wave 1 findings we have summarized above offer some provocative ideas that will be tested as the 4-H Study moves into its longitudinal phases.

The present research indexed depth of participation in youth development programs and found that these scores for participation constituted a source of variation in youth contributions that was independent of scores for PYD. Given the theoretical belief in the bidirectional associations among PYD, youth development program participation, and contributions by youth to self and context (Lerner, 2004; Lerner, et al., 2003a; Scales, et al., 2000), the independent contributions of program participation and PYD to contributions is puzzling. However, it may be that future, developmental analyses across the adolescent years will elucidate the relation among these three domains of youth functioning. Developmentally, and again recalling the orthogenetic principle (Werner, 1957), it may not be until a more developmentally mature portion of adolescence emerges that an integration among PYD, youth development program participation, and self  $\leftrightarrow$  context contribution is evidenced. Once again, this possibility can

only be appraised through analyses of the 4-H Study data set that include information from additional waves of observation.

Such analyses may be usefully extended by ascertaining the personological and ecological characteristics of youth participating in specific clusters of particular YD programs, and/or by considering both hours per week of participation as well as the number of programs per se in which a youth participates. The results of such analyses will then be able to inform subsequent longitudinal analyses (e.g., wherein number of programs or frequency of participation at Time 1 can be used as a covariate in analyses of the relations at Time 2 among program participation, PYD, and risk).

Furthermore, the questions that remain to be addressed in regard to the third issue addressed in this study, i.e., the issue of the association between YD program participation and the positive development of youth, are just a sample of the questions that we need to investigate in further analyses of Wave 1 and subsequent data in the 4-H Study. For instance, further analyses will address key facets of the theoretical model of PYD we discussed in this chapter and, specifically, the role of individual  $\leftrightarrow$  context developmental regulations involving the internal and ecological developmental assets of youth in promoting PYD. Although the 4-H data set includes a measure of developmental regulation, i.e., the SOC measure (Freund & Baltes, 2002; Freund, Li, & Baltes, 1999), the analyses we have conducted to date (Lerner, et al., in press) have not focused on the developmental regulation component of our theoretical model, despite its fundamental significance within the conceptualization we present of PYD. This decision was based primarily on the fact that developmental regulation can only be understood with change-sensitive data. Moreover, although cross-sectional data sets can be used to test hypotheses that conform to certain causal hypotheses, to test hypotheses reflecting dynamic,

causal models longitudinal data are optimal. As such, these analyses remain priorities for future reports of the 4-H Study data set.

In addition, given the relative power and richness of the data set, we will be able to focus future work on patterns of individual differences in the youth development trajectories we will be able to assess across the waves of this longitudinal study. For instance, we will be able to also ascertain how different groups of youth (e.g., males and females, adolescents from different regions, youth involved in different constellations of activities, or adolescents having different family experiences) may differ in regard to the structure and levels of the Five “Cs”, PYD, and contribution.

As noted earlier, these analyses will be enhanced by improvement of the measurement model we use to index key constructs in our structural model of the adolescent  $\leftrightarrow$  context relation, e.g., developmental assets and, particularly, external developmental assets – which can be indexed objectively through measures of the actual ecology of human development (Theokas & Lerner, in press); they can also be conceptualized as distinct from the Cs of PYD with which (as evidenced by the nature of our revised measurement model) the perceived internal assets indexed by the PSL-AB covary substantially. Indeed, the opportunity in future waves to index constructs through both self-report and independent and objective means will enhance the level of triangulation within the data set and, as well, will diminish the possibility that method variance may constrain our ability to generate valid and generalizable data. The changes in the measurement model for the Five Cs that was introduced by the formulation of our revised measurement model, and the use of an enhanced measurement model for such constructs as ecological developmental assets or contribution (which can be indexed through school- and community-based records), will enable us to better appraise the developmental systems notion

that adaptive developmental regulation – that is, mutually beneficial individual  $\leftrightarrow$  context relations – are linked to PYD.

A key asset to be provided by the analysis of further waves of data from the 4-H Study is that causality can be modeled, which of course cannot be done by cross-sectional, unitemporal data. Accordingly, reports of the results of analyses of the dynamic influences on PYD of the system of relations within which a young person is developing will be a key contribution of the work deriving from the future waves of this longitudinal study.

In sum, the analyses from the first wave of the 4-H Study provide empirical support for the conceptualization of positive youth development as competence, confidence, connections, character, and caring, for the conception of youth contribution presented in this article, and for the role that youth development programs play in PYD. These findings, together with future publications of the 4-H Study that will be focused on a comprehensive model of PYD, provide important information to scholars, practitioners, and policy makers who have called for a model of the strengths that young people possess. This important work can facilitate efforts to promote and support thriving among young people and their families through applications to community-based youth developmental programs and – to broaden and sustain such applications – to youth development social policies.

Such policies should be developed to enhance in communities the capacities of families to provide individual and ecological developmental assets (Benson, 2003; Damon, 1997; Damon, et al., 2003; Lerner, et al., 2002; Lerner, et al., 2000). Within such a policy context, asset rich communities would enact activities (e.g., programs) that would provide young people with the resources needed to build and to pursue healthy lives that make productive contributions to self, family, and community. Such resources include a healthy start, a safe environment, education

for marketable skills, the opportunity to “give back” to (to serve) the community, and freedom from prejudice and discrimination (Lerner, et al., 2000).

Thriving will more likely emerge when youth develop in such a policy and community action/program context (Benson, 2003; Lerner, et al., 2000; Pittman, et al., 2001; Roth, et al., 1998). In contemporary American society a competent, confident, connected, caring youth, who also possesses character, will have the moral orientation, the civic allegiance, and the behavioral skills to promote in his or herself (and when a parent, in his or her children), behaviors that “level the playing field” for all individuals. Committed -- behaviorally, morally, and spiritually-- to a better world beyond themselves, such youth will act to sustain for future generations a society marked by social justice, equity, and democracy and a world wherein all young people may thrive.

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**Table 1****“Working Definitions” of the 5Cs of Positive Youth Development**

C	Definition
Competence	Positive view of one’s actions in domain specific areas including social, academic, cognitive, and vocational. Social competence pertains to interpersonal skills (e.g., conflict resolution). Cognitive competence pertains to cognitive abilities (e.g., decision making). School grades, attendance, and test scores are part of academic competence. Vocational competence involves work habits and career choice explorations.
Confidence	An internal sense of overall positive self-worth and self-efficacy; one’s global self-regard, as opposed to domain specific beliefs.
Connection	Positive bonds with people and institutions that are reflected in bidirectional exchanges between the individual and peers, family, school, and community in which both parties contribute to the relationship.
Character	Respect for societal and cultural rules, possession of standards for correct behaviors, a sense of right and wrong (morality), and integrity.
Caring and Compassion	A sense of sympathy and empathy for others.

Note.—Derived from Lerner (2004) and Roth & Brooks Gunn (2003a).

Table 2

**Measures and constructs used in the Student Questionnaire of the 4-H Study**

<b>Constructs</b>	<b>Measure</b>
<b>Demographic information about youth and their families</b>	Questions about sex, date of birth, race/ethnicity, household composition, number of years in current neighborhood, time spent without an adult present.
<b>Developmental Assets and Thriving Indicators</b>	99 items from the Search Institutes' Profiles of Student Life – Attitudes and Behaviors Survey (PSL-AB) (Benson, Leffert, Scales, Blyth, 1998). Assesses internal and external developmental assets as well as thriving behaviors. Scale development for these 99 items are reported in Theokas et al. (in press).
<b>Parental warmth</b>	Paternal and maternal subscales of parental warmth from Child's Report of Parenting Behaviors Inventory (Schludermann & Schludermann, 1970).
<b>Parental monitoring</b>	Parental monitoring scale (Small & Kerns, 1993)
<b>Target based expectations</b>	Three subscales (Prosocial, Difficult, and Alienated) from the Target-Based Expectations Scale (Buchanan and Hughes, 2004). Assesses adolescents' beliefs about what behavior and traits will characterize them during adolescence.
<b>Self-perceived competencies and global</b>	Self-Perception Profile for Children (Harter, 1983) with six subscales was used to assess self-perceived academic,

<b>self-worth</b>	social, and physical competencies, as well as physical appearance, conduct/behavior adequacy, and self-worth.
<b>Peer support</b>	Peer Support Scale (Armsden & Greenberger, 1987)
<b>Sympathy</b>	Eisenberg Sympathy Scale (Eisenberg et al, 1996) was used to assess the degree to which participants feel sorry for the distress of others.
<b>Social responsibility</b>	Social Responsibility Scale (Greenberger & Bond, 1984) assesses adolescents' contribution to community and society.
<b>Ideology concerning community contribution</b>	Set of three open-ended questions developed for this study assessing whether or not youth think that positive development includes giving back to the world around them.
<b>Barriers to participation in community activities</b>	Six items associated with "Reasons for not participating in community activities" items set were used to assess the frequency of factors that may not allow or may impede children from participating in different activities. This items set was derived from the Teen Assessment (TAP) Survey Question Bank (Small, & Rodgers, 1995).
<b>Healthy Life Style Behaviors</b>	Five items associated with the "Healthy life style behavior" items set from TAP (Small, & Rodgers, 1995) were used to assess health-related behaviors such as exercising and sleeping.

<b>Depression</b>	Center for Epidemiological Studies Depression Scale (CES-D) (Radloff, 1977)
<b>Risk behaviors and delinquency</b>	Set of questions developed for this study to assess the frequency of substance use and frequency of delinquent behaviors. Questions were modified from items included in PSL-AB (Leffert, et al., 1998) and the Monitoring the Future Questionnaire (2000).
<b>Regulation and Goal-Oriented behaviors</b>	Selection, Optimization, and Compensation (SOC) Questionnaire (Freund & Baltes, 2002) was used to measure behaviors in selection of goals, acquisition and investment of goal-relevant means to achieve one's goals, and the use of alternative means to maintain a given level of functioning when specific goal-relevant means are not available anymore.
<b>School and career aspirations/expectations</b>	Four open-ended questions assessed the highest level of education adolescents' dream of completing, the highest level of education they believe they would actually complete, the job they would like to have as an adult, if they really thought they would attain the job, and if not what job they thought they would actually have.
<b>Thinking about the future</b>	Set of questions created for this study that assessed students' perception of the chances that some things (e.g. graduating from college, being healthy, being safe, etc.)

	are going to happen to them in future.
<b>Pubertal development</b>	Puberty Development Scale (Petersen, Crockett, & Boxer, 1988)
<b>Psychosocial development</b>	Three subscales of Erikson Psychosocial Stage Inventory (Rosenthal, Gurney, & Moore, 1981) were used to assess the resolution of the conflict associated with Erikson's developmental stages of early adolescence: Industry, Identity, and Intimacy.
<b>Participation in activities</b>	Set of 21 questions created for the purpose of this study which assessed students' involvement in different clubs and groups.

**Table 3****Measures included in the Parent Questionnaire of the 4-H Study**

<b>Items about the parent/guardian</b>	Questions included relationship to the child, age, sex, current marital status, race/ethnicity, religion, health status, education level, mother's education level (if the person completing the survey was not the mother), number of years spent in current neighborhood, SES, number of children in the household, number of people in the household, primary language spoken in the household, and importance of religion in the participant's family life.
<b>Items about the child</b>	Questions included birth date, birth order, height, weight, race/ethnicity, religion, hours of sleep per night, and clubs groups, and activities in which the child participated in, both now and in the past.

**Table 4. Measurement Model of the Five Cs and PYD**

		<b>Standardized ML Estimate</b>	<b>Residual Error</b>
Confidence			
1	Positive Identity	.91	.18
2	Self-Worth	.64	.50
Competence			
3	Academic Competence	.51	.74
4	Grades	.56	.69
5	School Engagement	.72	.48
6	Social Competence	.46	.79
Character			
7	Personal Values	.76	.42
8	Social Conscience	.79	.37
9	Values Diversity	.70	.51
10	Interpersonal Values and Skills	.67	.54
Caring			
11	Sympathy: Disadvantaged	.72	.48
12	Sympathy: Loneliness	.81	.30
13	Sympathy: Unfortunate	.74	.46
14	Sympathy: Pain	.80	.37
15	Sympathy: Rejection	.76	.43
Connection			
16	Family	.60	.64
17	School	.71	.40
18	Community	.44	.81
19	Peers	.43	.81
PYD			
1	Confidence	.77	.41
2	Competence	.82	.33
3	Character	.82	.32
4	Caring	.49	.76
5	Connection	.91	.18

Figure 1. A Developmental Contextual View of PYD

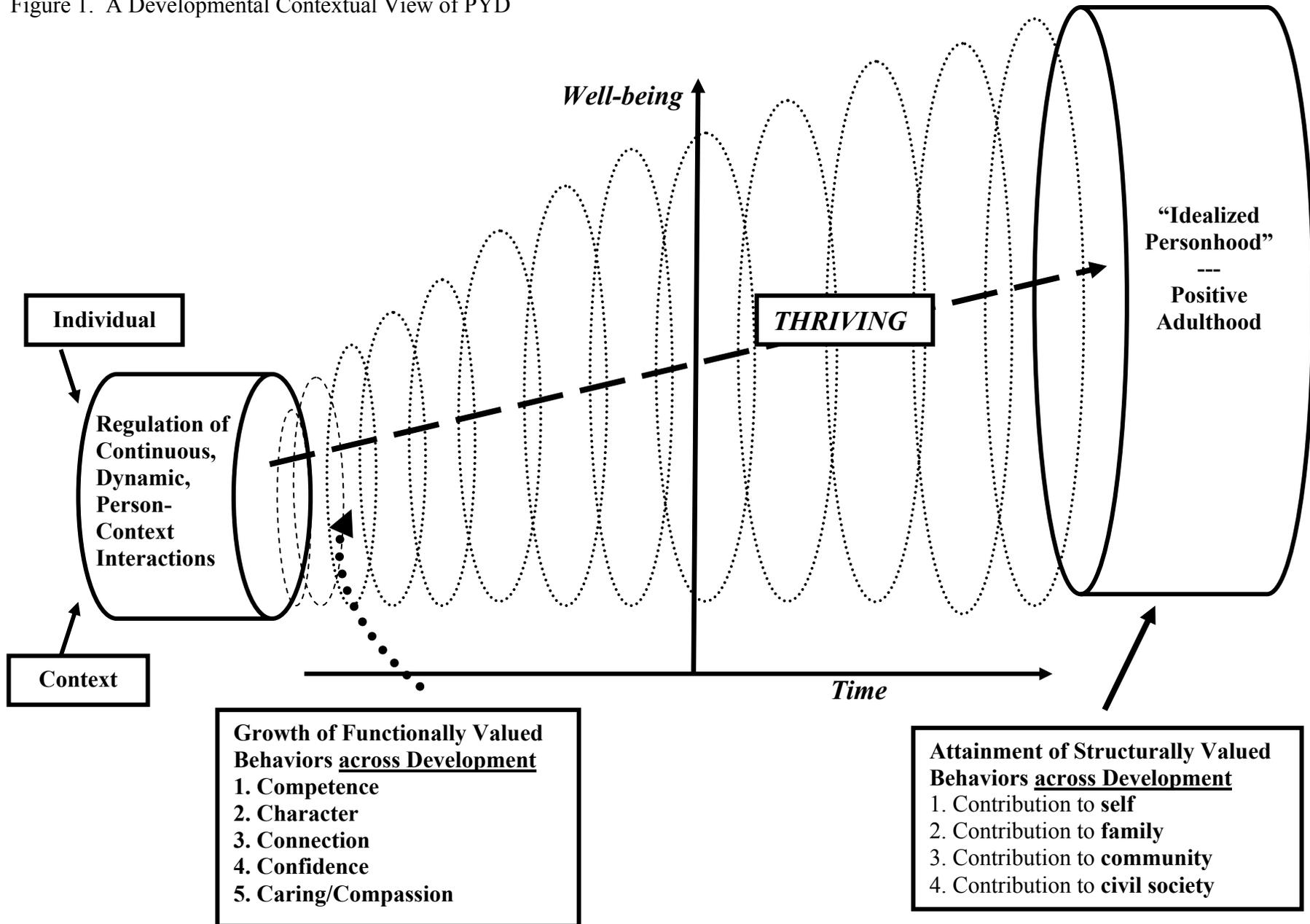
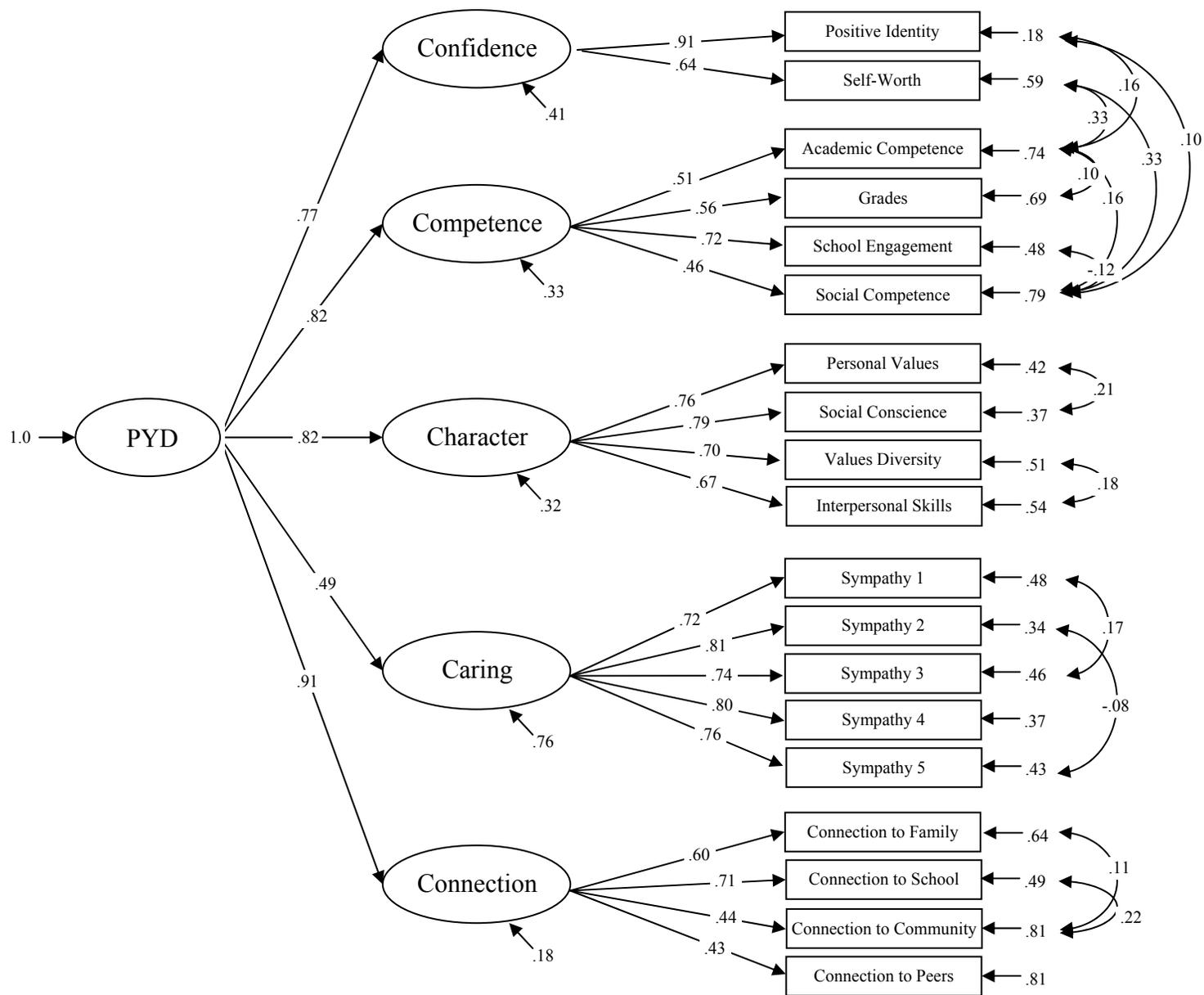


Figure 2. Retained Factor Model with Standardized Maximum Likelihood Estimates



Note. All estimates are significant at the 0.05 level.