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EDITORIAL

Special Issue Introduction: Thriving Across the Adolescent Years: A View of the Issues

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Abstract Framed within a relational developmental systems model, the 4-H Study of positive youth development (PYD) explored the bases and implications of thriving across much of the second decade of life. This special issue pertains to information derived from the recently completed eight waves of the 4-H Study of PYD, and presents findings about the relations between individual and contextual variables that are involved in the thriving process. This introduction briefly reviews the historical background and the theoretical frame for the 4-H Study and describes its general methodology. We provide an overview of the articles in this special issue and discuss the ways in which the articles elucidate different facets of the thriving process. In addition, we discuss the implications of this research for future scholarship and for applications aimed at improving the life chances of diverse adolescents.

Keywords Positive youth development · Thriving · 4-H · Longitudinal research · Relational developmental systems theories

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Introduction

Only about 10 years ago at this writing, Roth and Brooks-Gunn (2003a, b) reviewed the literature on youth development programs aimed at enhancing health and thriving among adolescents. They concluded that young people should be regarded not as problems to be managed but, instead, as resources to be developed. Their insight built on at least three sources. First, Larson (2000) provided a compelling vision for research aimed at understanding and promoting positive youth development (PYD). Second, Eccles and Gootman (2002) edited a field-defining report issued by the National Academy of Sciences about the ways in which community programs for youth development could promote several domains of constructs indicative of such development. The report included a summary of the attributes of positive development as involving constructs that could be summarized by "Five Cs:" competence, confidence, character, connection, and caring. Third, Hamilton (1999) explained that the idea of PYD was being used in the developmental science literature in three ways: (a) As a label for a model of the process through which health and thriving developed in adolescence; (b) as a philosophy for or an approach to designing community-based programs aimed at promoting thriving; and (c) as instances of such programs.

The links between the positive development of youth and their engagement with contextual resources (or ecological "developmental assets;" Benson et al. 2006), represented by community-based youth development programs that were of interest to Roth and Brooks-Gunn (2003a, b), Eccles and Gootman (2002), Larson (2000) and Hamilton (1999), reflected the *zeitgeist* of developmental science during the latter years of the 20th century and the first decade of the 21st. Split conceptions of human development, which in earlier

periods reduced the process of development either to nature-based, genetic or maturational determinants or to nurture-oriented models of shaping by a stimulus environment, were being replaced by models of fusion, or integrative developmental systems. Such models envisioned a relational developmental system (Overton 2013a, b) wherein there were mutually influential relations among all levels of organization, ranging from internal-to-the-person levels (biology/physiology and cognitive and emotional processes) through social relationships, relations involving the community and its institutions, through to culture, the designed and natural physical ecology, and history (e.g., Bronfenbrenner and Morris 2006; Cairns 1998; Gottlieb 1997, 1998; Lerner 2006, 2012; Magnusson and Stattin 2006; Overton and Müller 2013). When the individual and his or her context were the focus of developmental analysis, the mutually influential relations between these two levels were represented as individual ← → context relations (Lerner 2006), and the "rules" that were involved in these exchanges were termed "developmental regulations" (Brandtstädter 1998).

When developmental regulations were beneficial to both the individual and the context, they were regarded as adaptive (Brandtstädter 1998). The scholars interested in PYD as a process (e.g., Benson et al. 2006; Damon 2004, 2008; Eccles 2004; Eccles and Gootman 2002; Hamilton and Hamilton 2009; Larson 2000; Lerner et al. 2013; Masten 2001; Spencer 2006) implicitly or explicitly framed their ideas within this relational developmental systems conception (Lerner et al. 2013). As such, PYD was regarded as an instance of an adaptive developmental regulation involving the bidirectional relations between the attributes of youth and the features of their family, school, and community contexts. The mutually beneficial features of the relations that enabled thriving to emerge were based on the idea that PYD occurred when there was an alignment between attributes of youth that constituted strengths of the individual (as, for instance, operationalized by characteristics such as intentional self-regulation skills, hopeful future expectations, and school engagement; Lerner et al. 2013) and the features of the context that were developmental assets (for instance, warmth and monitoring by engaged parents or sustained relations with a caring and competent mentor or youth program practitioner). This strengths-based approach to youth development in general and to the understanding of thriving in particular was a frame for the key approaches to the design of PYD programs and to instances of such programs that were derived from such theory-predicated approaches (e.g., Catalano et al. 2002, 2004; Flay 2002; Flay and Allred 2003; Kurtines et al. 2008).

In the context of these scholarly currents, the 4-H Study of PYD was designed and launched in 2002 (Lerner et al. 2005). Using the relational developmental systems-based model of PYD presented in Fig. 1, the study aimed to collect longitudinal data linking the strengths of youth to ecological assets. The study assessed the links between indicators of these adaptive developmental regulations and measures of the Five Cs of PYD noted above. The study also sought to ascertain the possible impact of the development of these indicators of youth thriving to youth actions benefitting their context. Youth contributions to their families, schools, and communities, through active and engaged citizenship, were assessed (such youth contribution was regarded as the "Sixth C" of PYD; Lerner et al. 2013). The links between PYD, youth contributions and indicators of risk/problem behaviors were also studied to elucidate ideas pertinent to both the promotion of thriving and the prevention of risks and problem behaviors associated with adolescent development (Schwartz et al. 2007).

With the support of the National 4-H Council and the Altria Corporation, the 4-H Study involved eight waves of data collection. However, most of the youth who participated in the study were not involved in 4-H clubs or programs. The study sought to examine the strengths of diverse youth within the multitude of settings in which they are embedded; many, but not all, youth were engaged in a variety of out-of-school-time (OST) activities, but, again, the great majority of youth were not engaged in 4-H programs. The findings from the study have been reported in several special issues of journals (Lerner et al. 2005, 2009, 2010, 2011), special sections of journals (Geldhof et al. 2013), and in numerous single articles, chapters, and books (see Lerner et al. 2013; Lerner et al. in press, for reviews). The present special issue presents empirical reports from across all waves of the study. Before providing an overview of these reports, it is useful to briefly describe the methodological features of the 4-H Study.

The 4-H Study of Positive Youth Development (PYD)

The full details of the method of the 4-H Study have appeared in numerous publications (e.g., Lerner et al. 2005, 2009b, 2010, 2011). Accordingly, we provide here only a summary of the overall method of the study.

Design and Sample

The 4-H Study of PYD began in 2002 with a convenience sample of about 1,700 5th grade youth and about 1,100 parents from 13 states in the United States. (Additional information about the composition of the 4-H sample, in general, and specific waves is available upon request from the first author). As we have noted, and, although the study was funded through the support of the National 4-H Council (and hence its label), most participants in the research did not participate in 4-H programming. The study used a form of cohort sequential longitudinal design

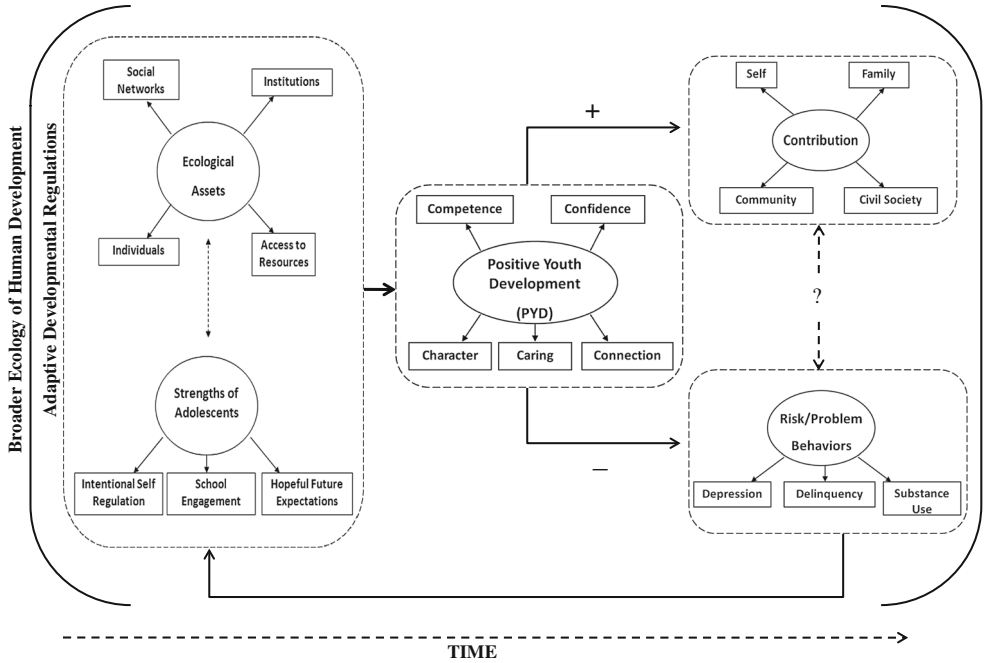

Fig. 1 The relational, developmental systems model of the individual ← → context relations involved in PYD used by Lerner, Lerner, and colleagues (e.g., Lerner et al. 2005; Lerner et al. in press)

(Baltes et al. 1977; Collins 2006) and, as such, the sample size increased across successive waves of testing. That is, data from fifth graders were gathered in Wave 1 of the study (the 2002–2003 school year), and these fifth graders were the initial cohort in the study. However, to maintain at least initial levels of power for within-time analyses and to assess the effects of retesting, subsequent waves of the study involved the addition of a "retest control" cohort of youth (and a sample of their parents) from the same birth cohort as our original sample. Participants in the added "retest control" cohort were then followed longitudinally. In Wave 2, the grade level of the initial cohort was Grade 6. As such, a "retest control" group of sixth graders was added to the study, and these youth became members of the second longitudinal cohort, Cohort 2. Both the original cohort of fifth graders and the added cohort of sixth graders were followed into Grade 7, where in addition to retesting initial Grade 5 and initial Grade 6 participants, a new cohort of seventh graders was added to the sample (along with a sample of their parents). In subsequent waves of testing this process was followed.

With the completion of collection of Grade 12 data, the 4-H study includes more than 7,000 youth (about half of whom have been assessed two or more times) and about 3,500 parents from 42 states. As shown in Table 1, the mean age of participants was 10.94 (SD = .42) in the Grade 5 assessment and 17.71 (SD = .76) in Grade 12. In regard to race/ethnicity, the sample was 65.8 % White; 7.6 % Black; 9.4 % Latino; and 14.4 % other (including Asian, Native American, Multiethnic/multiracial, or "other"). Participants resided in different types of communities, with 35.7 % living in rural areas; 16.3 % in urban areas; and 25.7 % in suburban areas (22.2 % had missing data for locale). Our sample's demographic characteristics were not completely stable across all waves of the study, however, with female and White participants over-represented in later waves of the data.

In addition, participants' parents provided data regarding the socioeconomic status of their families. In Grade 5, 20 % of mothers had attended or completed high school; 24.8 % had completed some college; and 18.6 % had a bachelor's degree or higher (35.8 % did not respond); average per capita income at Grade 5 was about $13,657 (SD = $8,348), and ranged to $23,401 (SD = $13,798) in Grade 12.

Although, as noted, initial waves of the study corresponded to particular school grades (for instance, Wave 1 = Grade 5, Wave 2 = Grade 6, and Wave 3 = Grade 7), as the participants traversed their subsequent grades, their academic careers became more varied. Accordingly, at later waves of the study, there was not only one grade level represented within a wave. In general, wave and grade continued to correspond (such that in Wave 8 most participants were in Grade 12), but there was some variation, particularly in Waves 6 to 8, in the grade levels represented. As such, reports derived from the 4-H Study data set across all eight waves always make clear the grade/age composition of the participants involved in any analysis.

Table 1 Participant demographics in the 4-H Study of PYD, by Grade

	Grade 5	Grade 6	Grade 7	Grade 8	Grade 9	Grade 10	Grade 11	Grade 12
Age *M*(*SD*)	10.94 (0.42)	12.01 (0.43)	13.00 (0.47)	14.02 (0.53)	14.98 (0.57)	15.82 (0.70)	16.83 (0.76)	17.71 (0.76)
Mother's education (%)								
High school or less	20.8	18.2	13.2	6.4	2.8	1.2	1.0	1.6
Some college	24.8	22.1	19.4	9.9	9.1	4.2	4.3	1.4
BA or higher	18.6	17.8	18.2	10.3	8.5	6.8	4.4	3.2
% Missing	35.8	42.0	49.3	73.4	79.6	87.8	90.3	93.8
Mean Per capita income (SD)	13,656.86 (8,348.46)	13,635.81 (8,621.05)	16,553.42 (10,631.93)	19,137.40 (13,216.27)	19,981.29 (12,938.41)	24,331.31 (18,664.92)	24,981.29 (17,316.31)	23,401.44 (13,798.49)

It is important to note that one important limitation of the 4-H Study method is the limited racial and ethnic variability of the sample; that is, the majority of the convenience sample used throughout the study was European American (on average, about 65 % across waves). The absence of sufficient, representative numbers of youth from diverse racial and ethnic groups limits the generalizability of the 4-H data set. To address this limitation, future research should be conducted with more diverse, representatively sampled groups of youth than are present in the 4-H Study data set.

Measures

Consistent with the model presented in Fig. 1, the measurement model used in the 4-H Study involved assessments of individual characteristics of youth that, theoretically, were linked to individual developmental assets (Benson et al. 2006, 2011) or youth strengths. Measures included here were of intentional self regulation, operationalized through the Baltes and colleagues' measure of Selection, Optimization, and Compensation (Baltes et al. 1999; Freund and Baltes 2002; see also Gestsdottir and Lerner 2007); hopeful future expectations (e.g., Schmid et al. 2011); and cognitive, emotional, and behavioral school engagement (Li and Lerner 2011).

Measures of ecological developmental assets used the framework for such resources developed by Theokas and Lerner (2006). These measures included indices of individuals in the lives of youth (e.g., parents, teachers, coaches, or mentors; Laursen and Collins 2009; Rhodes and Lowe 2009); opportunities for youth-adult collaboration in family, school, or community activities (e.g., food- or clothing drives, community- or educational-planning organizations or meetings; Lerner 2006); institutional resources such as out-of-school-time (OST) programs, parks, playgrounds, libraries, and media (e.g., Boyd and Dobrow 2011; Mahoney et al. 2009); and access to individual, collaborative, or institutional resources. To illustrate, the nature of parents as resources was indexed through assessments of parental warmth, monitoring, and academic/school involvement (e.g., Bebiroglu et al. 2013; Lewin-Bizan et al. 2010). Opportunities for youth-adult collaboration were assessed through the presence of youth coalitions in the community (Bowers et al. 2011). Institutional resources in the lives of youth were indexed by assessments of youth participation in OST programs (e.g., Urban et al. 2009, 2010; Zarrett et al. 2009).

Positive youth development was indexed through assessments of the Five Cs noted in Fig. 1 (Bowers et al. 2010; Geldhof et al. 2014; Phelps et al. 2009). In turn, we assessed youth contribution (Alberts et al. 2006; Jelicic et al. 2007) and, in later grades, active and engaged

citizenship (Zaff et al. 2010). Finally, risk/problem behaviors involved assessments of substance use, bullying, delinquency, and depression (e.g., Lerner et al. 2005; Lewin-Bizan et al. 2010). Additional information about the full set of measures assessed at each wave of the 4-H Study is available at http://ase.tufts.edu/iaryd/researchPositive4HpydResources.htm.

Procedure

In Waves 1 through 3 of the 4-H Study, data collection from youth was conducted by trained study staff or, at more distant locations, hired assistants. A detailed protocol was used to ensure that data collection was administered uniformly and to ensure the return of all study materials. After Wave 1, youth who were absent on the day of the survey or were from schools or programs that did not allow on-site testing were contacted by e-mail, mail, or phone, and were asked to complete and return the survey to us. Beginning in Wave 5, youth completed the survey online unless they requested a paper survey. Parents completed paper surveys that were delivered to their homes by their children or through the mail (in the latter case, return postage was provided).

Drawing from the 4-H Study data set, the articles in this special issue represent a culminating analysis of the thriving process across the eight waves of the investigation. It is useful to summarize briefly the ways in which the articles included in this special issue elucidate the course of thriving among the participants on the 4-H Study.

Overview of the Special Issue

The articles in this special issue highlight the diverse ways positive development can be manifested across adolescence, as well as the ways that manifestations of positive development relate to each other. This special issue opens with several articles that highlight the role of individual strengths in promoting positive development. In the first article, Callina and her colleagues noted that hopeful expectations for the future have been shown to play an important role in the positive development of youth, including youth contributions to society. Although theory and some research suggest that familial socialization may influence future-oriented cognitions, little work has focused on the possible interrelation of parent–child relationships and the development of hope, particularly during adolescence. Accordingly, the purpose of this study was to identify developmental profiles of youth with respect to hopeful future expectations (HFE) and parental trust across adolescence. The authors used growth mixture modeling to simultaneously examine trajectories of adolescents' perceived connections with parents (indexed by parent trust) and HFE among 1,432 participants (59 % female) from Waves 3 through 6 (Grades 7 through 10) of the 4-H Study. A four-profile model provided the best fit to the data, with the following profiles: Moderate HFE/U-shaped Trust; Moderate HFE/Increasing Trust; Both Decreasing; and Both High Stable profiles. The authors also explored whether hope-trust profiles were related to youth civic engagement in Wave 7. Contrary to hypotheses, results indicated that the profile reflecting the greatest discrepancy in HFE and trust across early to middle adolescence (i.e., Moderate Hope/U-shaped Trust) was associated with the highest mean Contribution scores.

In the next article, Chase and his co-authors explained that another youth individual strength, school engagement, is an important theoretical and practical cornerstone to the promotion of academic accomplishments. The authors used a tripartite—behavioral, emotional, and cognitive—model of school engagement to assess the relationship between school engagement and academic success among high school students, and to determine whether a reciprocal relationship exists among these constructs. Data were used from 710 youth (69 % female) who took part in Waves 6 through 8 (Grades 10 through 12) of the 4-H Study. Longitudinal confirmatory factor analyses confirmed the invariance of the tripartite model of school engagement. Results of a test of a structural equation model showed that the components of school engagement and academic achievement were mutually predictive and these predictions varied from grade to grade.

Turning to the role of developmental assets in promoting PYD, Bowers and colleagues noted that both parents and important non-parental adults have influential roles in promoting positive youth development. Little research, however, has examined their simultaneous effect on PYD. The authors examined the integrative relationships among youth-reported parenting profiles and important non-parental adult relationships in predicting the Five Cs of PYD in four cross-sectional waves of data from the 4-H Study (Grade 9: N = 975, 61.1 % female; Grade 10: N = 1,855, 63.4 %; Grade 11: N = 983, 67.9 % female; Grade 12: N = 703, 69.3 % female). The results indicated the existence of latent profiles of youth-reported parenting styles based on maternal warmth, parental school involvement, and parental monitoring that were consistent with previously identified profiles (Authoritative, Authoritarian, Permissive, and Uninvolved), as well as reflecting several novel profiles (Highly Involved, Integrative, School-Focused, Controlling). Parenting profile membership predicted mean differences in the Five Cs at each wave, and also moderated the relationships between the presence of an important non-parental adult and the Five Cs. In general, Authoritative and Highly Involved

parenting predicted higher levels of PYD and a higher likelihood of being connected to an important non-parental adult.

In the next article, Agans and her co-authors observed that prior research has demonstrated that participation in out-of-school time activities is associated with positive and healthy development among adolescents. However, fewer studies have examined how trajectories of participation across multiple activities can impact developmental outcomes. Using data from Wave 3 (approximately Grade 7) through Wave 8 (approximately Grade 12) of the 4-H Study, this article reported an examination of patterns of breadth in out-of-school time participation in activities and associated outcomes in PYD, Contribution to self and community, risk behaviors, and depressive symptoms. The authors assessed 927 students (on average across waves, 65.4 % female) from a relatively racially and ethnically homogeneous sample (about 74 % European American, across waves) with a mean age in Wave 3 of 12.98 years (SD = 0.52). The results indicated that a high likelihood of participation in activities was consistently associated with fewer negative outcomes and higher scores on PYD and Contribution, as compared to a low likelihood of participation in activities. Changes in the breadth of participation (in particular, moving from a high to a low likelihood of participation) were associated with increased substance use, depressive symptoms, and risk behaviors.

With empirical support for the role of both individual strengths and contextual resources in promoting PYD, Geldhof and his colleagues noted that, as developmental scientists cease to perceive adolescence as a period of inevitable turmoil and adopt the PYD perspective, psychometrically sound measurement tools will be needed to assess adolescents' positive attributes. Accordingly, the authors examined the longitudinal stability of the very short version of the PYD scale developed as part of the 4-H Study. Using a sample of 7,071 adolescents (60 % female) followed between Grades 5 and 12, the results suggested general stability of PYD across adolescence, both in terms of mean levels and rank-order stability. The authors also found that both a global measure of PYD and the individual Five Cs of PYD consistently correlated with important criterion measures (i.e., contribution, depressive symptoms, and problem behaviors) in expected ways. Although the results suggested weak relationships among the three criteria, the authors pointed out that, across adolescence, PYD becomes more strongly correlated with contribution but less strongly correlated with depressive symptoms, and that confidence becomes more strongly related to depressive symptoms.

In the next article, Hershberg and her co-authors pointed out that quantitative measures of PYD and youth contribution indicate that youth in the 4-H Study are generally doing well and contributing to themselves, to others, and to their communities. To illuminate their pathways to thriving, the authors implemented qualitative analyses of open-ended responses from youth in the 4-H Study. They addressed questions about what is meaningful to them and about their future goals. They presented descriptive and thematic analyses of qualitative responses from 56 youth (37 females, 19 males) who participated in the 4-H Study in each of three grades (6, 9, and 12). Analyses were both inter- and intraindividual and enabled the authors to identify nuances in the ways in which youth referenced contribution at different points in their adolescent development. Findings indicated that most youth who participated in the qualitative portions of the 4-H Study valued acts and/or ideologies of contribution at some point in their adolescence, and several were committed to facets of contribution across Grades 6, 9, and 12. The analyses also identified some of the aspects of youth experiences (e.g., athletics, family relationships, and academic competencies) described as most important to the youth and, as well, future goals across adolescence.

As indicated, the PYD perspective is concerned not only with promotion of thriving, but also, with the prevention of risks and problem behaviors associated with adolescent development. Therefore, in the next article, Arbeit and colleagues observed that previous analyses of data from the 4-H Study have examined concurrent trajectories of positive development and risk/problem behaviors among adolescents, finding complex and not necessarily inverse relationships among them. In this article, the authors expanded on prior research by employing a person-centered approach to modeling risk behaviors, assessing development from approximately 6th grade through 12th grade among 4,391 adolescents (59.9 % female). Latent profiles involving the problematic behaviors of delinquency, depressive symptoms, substance use, sexual activity, disordered eating behaviors, and bullying were assessed for concurrent relationships with the Five Cs of PYD. The authors found six latent profiles, based primarily on mental health, aggression, and alcohol use, with significant differences in Confidence levels among many of the profiles, as well as some differences in the four other Cs. In the next article, Hilliard and her collaborators noted that previous work on peer victimization has focused primarily on academic outcomes and negative indicators of youth involved in bullying. Few studies have taken a strength-based approach to examine attributes associated with bullies and victims of bullying. As such, the authors examined developmental trajectories of moral, performance, and civic character components, and their links to bully status using data from 713 youth (63 % female) who participated in Wave 3 (approximately Grade 7) through Wave 6 (approximately Grade 10) of the 4-H Study. Latent

growth curve analyses indicated that moral character was stable across waves, whereas civic character increased slightly by Wave 6. Trajectories for performance character varied; some youth alternatively displayed positive versus negative growth. Youth who reported bullying behavior reported lower initial levels of moral, performance, and civic character as compared to youth not involved in bullying. Bully-victims reported lower initial levels of moral and civic character as compared to youth not involved in bullying.

Finally, several developmental scientists whose scholarship has framed the study of adolescence in general and the positive development of youth in particular provided commentaries about the research reported in this special issue and, more generally, about the overall 4-H Study of PYD. We are grateful for the perspectives about the 4-H Study and about the PYD field more generally provided by Jeanne Brooks-Gunn and Jodie Roth, Stephen F. Hamilton, Reed W. Larson and Steve P. Tran, Ann S. Masten, Jean E. Rhodes, and Margaret Beale Spencer and Tirzah R. Spencer. Their ideas place the 4-H Study within the larger literature pertinent to both the theoretical frame of adolescent development research and the contributions to the description, explanation, and optimization of youth development that can be made by longitudinal research.

Conclusions

The articles in this special issue provide support for the use of the relational developmental systems theory-based PYD perspective forwarded by Lerner, Lerner, and colleagues (in press; see too Overton, 2013a, b) in framing research that enhances understanding of the intricacies of the individual ← → context relations that put young people on a thriving journey across the adolescent period. In addition, all articles explain how the findings of the research derived from the 4-H Study of PYD have important implications for the conduct of youth development programs and for the formulation of policies that seek to promote thriving among adolescents and not only to prevent or ameliorate problems among members of this age group.

In underscoring the vital connection between research and application, the articles in this special issue pertain to another, larger point associated with the positive youth development perspective. The potential to change youth development for the better—a potential illustrated by the findings reported in this special issue—is a reason for all people concerned with the health and welfare of adolescents to be optimistic that evidence-based actions can be taken to enhance the chances for thriving among all young people. Indeed, because parents, peers, teachers, and community leaders are key parts of the ecology of youth development that is essential for putting youth on a path to thriving, the broadest implication of the research reported in this special issue is that every person has the opportunity to contribute meaningfully to the positive development of youth. All of us, then, may be invaluable assets in promoting thriving among the diverse youth of our nation and world.

These actions will of course require the collaboration of researchers and practitioners. Our hope is that the scholarship presented in this special issue and, as well, in the body of research derived from the 4-H Study more generally, will further the progress of such collaborations. If so, then the three goals of the developmental science of adolescence (Baltes et al. 1977)—that is, to describe, to explain, and to optimize youth development—with be furthered. We will be gratified if the research that has been derived from the 4-H Study is regarded by the researcher and practitioner communities as having made useful contributions to such advances.

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