

Human Development, Theories of

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Abstract

Relational developmental systems (RDS) models frame contemporary scholarship in human development – whether in infancy, childhood, adolescence, adulthood, or late adulthood – and encourage investigations of variation both within time and across people in their trajectories of *individual↔context relations* using person-centered and change-sensitive methods. Accordingly, we contrast RDS theory-framed research with prior theoretical approaches, specifying implications of RDS theories for description, explanation, and optimization of development across the life span. We note implications for programs and policies and for promoting social justice among diverse individuals, families, and communities.

Developmental science seeks to describe, to explain, and to optimize within-individual changes and differences among individuals in these within-individual changes across the life span (Baltes et al., 1977; Lerner, 2012). Although the goals of description, explanation, and optimization existed in prior instantiations of the field – in child psychology and then in developmental psychology (Lerner, 2012) – contemporary developmental scientists approach these three objectives differently than in the past. Whether studying infancy, childhood, adolescence, or the adulthood and aging portions of the life span, contemporary scholarship in human development attempts to explain how mutually influential relations between individuals and their contexts provide the basis for individual behavior and development (i.e., bidirectional, reciprocal, synergistic, or fused relations; e.g., Tobach and Greenberg, 1984). Today, then, developmental scientists focus on systematic and successive alterations in the course of these relations and on the integration of multiple attributes of the individual (e.g., physiological, cognitive, emotional, motivational, and behavioral characteristics) and multiple levels of the ecology of human development. These levels range from the biological level through the sociocultural and historical levels, including the designed and natural environments (Bronfenbrenner and Morris, 2006; Lerner, 2002, 2006).

This focus of contemporary developmental science is framed within relational developmental systems (RDS) theoretical models (e.g., Overton, 2010b, 2012; Overton and Müller, 2013; see Lerner et al., 2013; for an example of such framing within the study of adolescent development). These models integrate the actions of the individual on the context and the actions of the context on the individual, represented as *individual↔context relations* (Brandtstädter, 1998, 2006; Lerner, 2002, 2006). The emphasis on RDS models results in the view that developmental science is a nonergodic field (Nesselroade and Molenaar, 2010). The ergodic theorem holds that data sets are marked by (1) homogeneity across individuals in a three-dimensional matrix involving persons, variables, and time; and (2) stationarity of individuals' scores on variables across time (Molenaar, 2007). Developmental scientists, however, believe that there is variation both within time and across people in their trajectories of *individual↔context relations* (i.e., *across time differences*). In other words, people differ in their paths

across the life span. Accordingly, the assumptions of homogeneity and stationarity of the ergodic theorem are rejected in contemporary developmental science (Molenaar, 2007, 2010) when framed by RDS theories. As a consequence of nonergodicity, developmental scientists stress the importance of person-centered and change-sensitive methods in their descriptive and explanatory efforts.

To explain these contemporary features of theory in the study of human development we will first contrast today's RDS theory-framed field with prior approaches to theory. Accordingly, we review the evolution of ideas about developmental theory from the end of the nineteenth century and across the twentieth century. We describe the bases of the emergence of interest in RDS theories and then present an overview of key features of these conceptions. This discussion will enable us to specify the implications of RDS theories for description, explanation, and optimization of development across the life span. Our discussion of optimization enables us to formulate some concluding comments about the links between RDS-predicated programs and policies for promotion of social justice among diverse individuals, families, and communities.

Developmental Science: Past and Present

During the latter years of the nineteenth century and for much of the twentieth century, and perhaps especially in the United States and Western Europe, the study of human development became a visible subfield of psychology (see Cairns and Cairns, 2006; for a review). In this literature, and its antecedents in philosophy (see Baltes, 1983 for a review), development was envisioned to be a life-span phenomenon (e.g., Erikson, 1959; Hall, 1904, 1922). The majority of the scholarship about human development in the United States and Western Europe, however, was focused on infancy and childhood (e.g., Binet and Simon, 1905a,b; Gesell, 1929; Piaget, 1923; Preyer, 1882; Terman, 1925).

As a consequence, across this historical period, child psychology emerged as a specific subarea of psychology, spurred on by the research of scientists studying this age period, by the founding of several university centers and institutes devoted to the study of children (e.g., in Iowa, involving

scholars such as Boyd R. McCandless; Minnesota, involving scholars such as Dale B. Harris; and Yale, involving scholars such as Arnold Gesell), and by the work occurring within land-grant universities in the United States in the field of home economics that focused on children (and families) (Cairns and Cairns, 2006; Lerner and Simon, 1998). At the same time, many of these bases of child psychology also created a purportedly multidisciplinary instantiation of scholarship devoted to the study of children, that is, child *development*. In 1933, the Society for Research in Child Development (SRCD) was founded to promote such a multidisciplinary approach to the study of children (and to the application of child development research). In actuality, however, SRCD was, from its outset, dominated by scholars trained in psychology, and this is still the case today. It is not surprising, then, that whether labeled child psychology or child development, the study of the early portion of the life span was framed in very similar ways by scholars studying children (*see* Childhood and Adolescence: Developmental Assets).

At its inception, the child development (or child psychology) field was framed by Cartesian split conceptions of change across ontogeny and by reductionist accounts of the bases of human development (Overton, 2006, 2010b). The core conceptual issues of child development were the nature–nurture, the continuity–discontinuity, and the stability–instability controversies (Lerner, 2002). These debates and proposed ‘solutions’ involved, for instance, reducing development to being a phenomenon explained by either nature variables (genes or maturation; e.g., Hamburger, 1957) or operant or respondent stimulus-response connections (e.g., Bijou and Baer, 1961). This split, reductionist ontology about development meant that the epistemological route to learning about the basis of development was to identify the essential (nature *or* nurture) explanatory variable(s). Accordingly, the study of development was also marked by variable-centered analyses, as exemplified by the tables of contents of the editions of the *Handbook of Child Psychology* (e.g., Carmichael, 1946, 1954; Mussen, 1970, 1983) and other major compendiums (e.g., Reese and Lipsitt, 1970; Stevenson, 1963) published during this period.

However, as early as 1970, Mussen, the editor of the third edition of the *Handbook of Child Psychology*, pointed to the potential implications of the growing interest among some scientists to move away from a reductionist approach, which involved descriptions of the variables purportedly accounting for ontogenetic structure and function, and toward an approach that viewed development as involving interrelations among variables (from multiple levels of organization). Mussen (1970) said that “the major contemporary empirical and theoretical emphases in the field of developmental psychology ... seem to be on *explanations* of the psychological changes that occur, the mechanisms and processes accounting for growth and development” (p. vii). By pointing to the interest in change processes, Mussen was implying that we needed something more to explain the process of development, unless we believed that nature or nurture variables explained themselves in structure or function.

That ‘something more’ was already emerging within the study of development – at a series of conferences held at West Virginia University in the late 1960s and early 1970s about the

nature and implications of a life-span view of human development (e.g., Baltes and Schaie, 1974; Nesselrode and Reese, 1973; Schaie, 1970) (*see* Lifespan Development, Theory of). These West Virginia University conferences, and the edited books that derived from them, laid the foundation for contemporary RDS theories. First, the conferences and associated books discussed the philosophical, theoretical, and methodological problems associated with split/reductionist accounts of development. Second, they introduced ideas about the potential for plasticity (i.e., the potential for systematic change) in development across life, and they pointed to the role of potentially mutually influential relations between individuals and their normative age- and history-graded contexts, and their nonnormative experiences, in instantiating this plasticity. Finally, they underscored the fundamental necessity of studying intraindividual changes (and interindividual differences in intraindividual changes) involved in these individual ↔ context relations in order to describe, explain, and optimize the course of human development. These ideas would act synergistically with growing scholarship in Europe that provided theory and data fostering a ‘reversal’ of focus for developmental inquiry – from variable-centered to person-centered approaches to human development (e.g., Magnusson, 1999). These ideas were also synergistic with work in sociology at the time demonstrating that the course of life was shaped by historical events that one encountered at particular times and in particular places (Elder, 1974) (*see* Motivation: Life Course and Sociological Perspectives).

When taken together, these ideas pointed to the vacuity of split/reductionist models (and their attendant methods). In turn, this work underscored the importance of time and place, person ↔ context relations, plasticity, and the need for longitudinal (change-sensitive) methods to study intraindividual change across life, as well as the diverse life paths of these intraindividual changes. These ideas, when considered together, presented a major challenge to the then-dominant metatheoretical and theoretical ideas in the field. Indeed, the new ideas about human development formed at the West Virginia University conferences were akin to a Kuhn-like (Kuhn, 1962) paradigm shift (Lerner et al., 2013; Overton and Lerner, 2012), from the then still dominant models, methods, and ontogenetic foci associated with child development.

In addition to being primarily descriptive and normative (Mussen, 1970), with the norms usually generated by studying only a small portion of humanity (i.e., European American middle-class children in the main; Hagen et al., 1990), the extant ‘paradigm’ was as likely (if not more likely) to use cross-sectional research to study development than it was to employ longitudinal methods. The use of cross-sectional designs (and data analysis methods, e.g., R-technique analyses; e.g., see Cattell, 1966, and for more current versions of these ideas see Nesselrode and Molenaar, 2010) was predicated on the assumption of the applicability of the ergodic theorem (e.g., Molenaar, 2007), that is, as noted, that one could assume interindividual homogeneity and across-time stationarity of the modeled parameters (but not necessarily of an individual’s observed values). In addition, because of the presumption that the descriptions being generated from

research were explained by the split, reductionist conception framing the research, studies during this period were also largely atheoretical in character (Bronfenbrenner, 1963; McCandless, 1967; Mussen, 1970). As such, selections of methods (e.g., the use of experimental designs, as in Reese and Lipsitt, 1970) or data analytic techniques (e.g., analysis of variance, factor analyses) were given priority over theory-based questions in the framing of research.

The work being generated through the advent of the life-span (Baltes et al., 2006) and life-course (Elder and Shanahan, 2006) perspectives, and the emergence of what are now termed RDS theoretical models (Overton, 2011; Overton and Müller, 2013) were linked – at least initially through the West Virginia University conferences – to these perspectives. For example, Riegel's (1976a,b) dialectic model, Lerner's (1978; Lerner and Kauffman, 1985) developmental contextual model, Magnusson's (1999) individual-context model, and Overton's (1984, 2003) organismic contextual model coalesced to shift the 'paradigm.' These strands merged in the 1970s, 1980s, and 1990s to create a focus on person ↔ context relations and *person ↔ context models* (Cairns and Cairns, 2006; Lerner, 2002, 2006). As we have noted, these models involved the belief that time and place matter in regard to shaping the course of life (Bronfenbrenner, 2005; Elder, 1998, 2013) and emphasized that developmental science needed to study both the person and the diversity of people in order to understand human development.

In short, the outcome of these theoretical ideas is that the study of development is the study of nonergodic phenomena. Accordingly, across the last decades of the twentieth century there were innovations in methods of designing research about, and analyzing data from, the study of within-person trajectories and differences between people in these trajectories. Developmental psychology per se, however, had neither sufficient conceptual tools nor methodological means to gather and interrelate variables from the multiple levels of analysis needed to describe the *individual ↔ context relations* involved in human development, to explain these relations, or to test these explanations through optimization efforts. As such, ideas from several disciplines were drawn on to create integrative, nonreductionist, and systems models of human development and, as well, methods from numerous fields (e.g., computer science, economics, neuroscience, molecular biology, sociology, and statistics, as well as psychology) were used to study development. By the beginning of the twenty-first century, true developmental science had been created (Magnusson and Cairns, 1996).

In sum, then, in much of the twentieth century the study of human development was embedded in a Cartesian world view: It gave great credence to a split conception of the world and thus perpetuated interest in the nature–nurture issue (Overton, 1973, 2010b). Similar core conceptual issues within the field included the continuity–discontinuity issue and the stability–instability issue, both framed within this split conception (see Lerner, 2002; Overton, 2006, 2010b, 2012; for reviews). These (false) conceptual commitments led researchers to readily accept genetic reductionism and embrace several theories (or approaches) that claimed to show how genes provided the fundamental material bases of human behavior and development (e.g., behavior genetics, sociobiology, or

evolutionary psychology). The apparent truth of these assumptions was maintained, in part, by avoiding consideration of the ecology or context of human development (e.g., see Greenberg, 2011; Gottlieb, 1998; Overton, 2012; for critiques).

Moreover, scientists working within this context focused on what might be called the 'generic human being' (Emmerich, 1968) and on the earliest years of life, progressing in the best cases to the years surrounding puberty (Brim and Kagan, 1980). Today, however, in the middle of the second decade of the twenty-first century, developmental science conceptualizes the entire span of human life as involving change. It also rejects prior conceptions of a nature–nurture divide and its associated problems, embracing instead the importance of the *individual ↔ context relations* noted earlier.

RDS Theories

RDS theoretical models are, today, at the cutting edge of theory and research within developmental science (e.g., see the two volumes of the *Handbook of Life-Span Development*; Lamb and Freund, 2010; Overton, 2010a). Such theory focuses on the processes that govern mutually influential relations between individuals and their contexts. Brandtstädter (1998) terms these relations 'developmental regulations' and notes that where developmental regulations involve *mutually beneficial individual ↔ context relations*, they constitute *adaptive* developmental regulations.

With RDS models, all levels of organization within the ecology of human life are involved in mutually influential relationships across the breadth of the entire life course (Bronfenbrenner and Morris, 2006; Riegel, 1975, 1976a,b). The broadest level of the context is history (temporality) and, as a consequence of all levels of person and context being embedded in history, there is always a potential for systematic change – for plasticity (Lerner, 1984) – in *individual ↔ context relations*. Indeed, given that variation exists across time within contexts and, as well, across contexts within time, differences in time and place constitute vital contributors to plasticity across the life span – even into the 10th and 11th decades of life (Baltes et al., 2006; Elder, 1980; Elder and Shanahan, 2006; Elder et al., 1993). As a consequence, human life is variegated and changing. The processes of human development are neither uniform nor permanent across individuals, settings, or history. As such, the impact of temporality in human development involves the individual life span as well as generational and historical time (Elder, 1998; Elder et al., 1993) (see Motivation: Life Course and Sociological Perspectives; Ecology of Aging).

In addition, the array of individual and contextual variables involved in these potentially plastic *individual ↔ context relations* is virtually infinite. Estimates are that the odds of two genetically identical genotypes arising in the human population is about one in 6.3 billion, and each of these potential human genotypes may be coupled across life with an even larger number of life course trajectories of social experiences (Hirsch, 2004). Thus, the number of human phenotypes that can exist is fundamentally infinite, and the diversity of development becomes a prime, substantive focus

for developmental science. To emphasize the point, it is useful to note that recent studies have produced ample empirical information about the relational developmental character of genetic processes (e.g., see Charney, 2012; for a review).

Current genetic research (1) underscores the embeddedness of genetic processes within processes from other levels of organization of the fused, relational developmental system; (2) documents the idea that *gene ↔ context relations* are part of the plasticity of within-individual change; and (3) provides a conception of the genome that contradicts the concept of genes found in behavioral genetics, sociobiology, and evolutionary psychology. For instance, Charney (2012) points to how the contemporary scientific study of genetics is signaling not only a nonsplit approach to developmental science but, as well, is tolling a death knell for these genetic reductionist approaches. He says that,

Rather than being an unchanging template, DNA appears subject to a good deal of environmentally induced change. Instead of identical DNA in all the cells of the body, somatic mosaicism appears to be the normal human condition. And DNA can no longer be considered the sole agent of inheritance. We now know that the epigenome, which regulates gene expressivity, can be inherited via the germline. These developments are particularly significant for behavior genetics for at least three reasons: First, epigenetic regulation, DNA variability, and somatic mosaicism appear to be particularly prevalent in the human brain and probably are involved in much of human behavior; second, they have important implications for the validity of heritability and gene association studies, the methodologies that largely define the discipline of behavior genetics; and third, they appear to play a critical role in development during the perinatal period and, in particular, in enabling phenotypic plasticity in offspring (p. 331).

This evidence, along with that supplied by others (e.g., Ho, 2010; Ho and Saunders, 1984; Greenberg, 2011; Gissis and Jablonka, 2011; Hood et al., 2010; Jablonka and Lamb, 2005; Molenaar, 2010), creates the basis for a true Kuhnian paradigmatic revolution in the study of development (Kuhn, 1962). The findings presented by these scholars constitute anomalies (in effect, falsifications) of the 'old' genetic reductionist paradigm. These anomalies result in a crisis for the reductionist paradigm and, critically, a basis for science (and for working scientists) to turn toward an available, alternative paradigm. This new paradigm is RDS theories and, consistent with Kuhn's (1962) discussion of scientific revolutions, the very findings that are anomalies in (falsifications of) genetic reductionist models (and methods) are integrated within the now-dominant paradigm (Overton and Lerner, 2012).

Simply, to the extent that developmental scientists have successfully validated their theoretical models of the intra-individual change trajectories linked to specific instantiations of *individual ↔ context relations*, their work should be able to be applied to enhance the likelihood that diverse individuals will be on better (i.e., healthier, more positive) trajectories. Although developmental science will only move asymptotically toward this knowledge base, current emphases in developmental science (Fisher et al., 2012) stress that scholarship should be directed to identifying the answers to questions about how to use integrated explanatory/

optimization work to create a more socially just world for diversity of individuals in our global community. This contemporary interest in the connection between basic and applied developmental science that serves social justice may portend a continued focus on an applied developmental science that contributes to social justice in future decades (Lerner, 2012).

Conclusions about RDS Theories

From the perspective of RDS models, to adequately describe and explain human development across the life span, scientists need to focus on the substantive significance of diversity. They must attend to the diversity of *individual ↔ context relations* that exist within people across time (this diversity makes implausible the ergodic theorem postulation of stationarity across the life span) and they must attend the variation across people in these varying trajectories of within-individual change (this diversity makes implausible the ergodic theorem postulation of homogeneity across people) (Molenaar, 2007). In addition, an RDS theoretical approach to understanding the life course has implications as well for optimization, the third goal of developmental science.

Optimization within RDS Theoretical Approaches to Developmental Science

The focus on diversity in regard to describing and explaining developmental change that is emphasized within RDS theories also involves the expectation that, as a consequence of health-supportive alignments between people and settings, positive changes can be promoted across all instances of variation in *individual ↔ context relations*. With this stance, diversity becomes the necessary subject of inquiry in developmental science. That is, to understand the bases of and, in turn, to promote *individual ↔ context relations* that may be characterized as healthy, positive, adaptive, or resilient – which are relations reflecting the maintenance or enhancement of links that are mutually beneficial to individuals and context – scholars must ask a complex, multipart question (Lerner et al., 2012, 2013). Specifically, researchers must ascertain,

- *what fundamental attributes of individuals* (e.g., what features of biology and physiology, cognition, motivation, emotion, ability, physiology, or temperament); among individuals of
- *what status attributes* (e.g., people at what portions of the life span, and of what sex, race, ethnic, religious, geographic location, etc. characteristics); in relation to
- *what characteristics of the context* (e.g., under what conditions of the family, the neighborhood, social policy, the economy, or history); are likely to be associated with
- *what facets of adaptive functioning* (e.g., maintenance of health and of active, positive contributions to family, community, and civil society)?

Moreover, proponents of RDS models believe that the relative plasticity of the *individual ↔ context relations* creates a synthesis between the explanatory and optimization goals of

developmental science (Baltes et al., 1977; Lerner, 2002). To test explanations of developmental change, scholars need to institute or evaluate programs that are aimed at altering the bidirectional relations expected to produce changes in behavior and development. These actions must necessarily be embedded in the ecologically valid settings of human development in order to have generalizability to the lived experiences of individuals and, therefore, must constitute intervention (applied) research and, at the same time, research testing basic explanatory processes of human development. As such, in contemporary developmental science, the commonly regarded split between basic and applied research is also regarded as a flawed holdover from earlier eras (Fisher et al., 2012; Lerner and Overton, 2008). In short, the application of developmental science (optimization) is a coequal partner with description and explanation within contemporary developmental science.

The emerging approach to developmental science also brings to the fore a concern for promoting social justice (Fisher et al., 2012; Lerner and Overton, 2008). Arguably, the most arduous test of the integrated explanatory/optimization scholarship conducted by developmental scientists involves efforts to bring to scale changes in the developmental system for diverse individuals. If our explanatory models can fully account for the system of *individual ↔ context relations* that alter the course of development for all individuals, then we should be able to promote more positive development among all individuals. Developmental scientists should be able to specify *what* characteristics, of *what* individuals, should be integrated with *what* features of the ecology of human development, at *what* points across ontogeny, to produce *what* instances of (more optimal) changes in behavior and development (see Ecology of Aging). Longitudinal projects, such as the Berlin Aging Study (Baltes et al., 2006) or the 4-H Study of Positive Youth Development (J. Lerner et al., 2013), involve such specifications: in those studies, findings illustrate the importance of research framed by RDS models in explaining the course of development and generating rich ideas for optimization strategies.

Accordingly, rather than optimize their theories to promote success of a 'generic' or 'ideal' person, within-individual developmental systems work should be able to be applied to enhance the likelihood that diverse individuals will be on better (i.e., healthier, more positive) trajectories. Answering the above noted 'what' questions is essential if scholars are to use their integrated explanatory/optimization work to enhance policy and programming, and thereby, create a more socially just world for a diversity of individuals in our global community (Fisher et al., 2012). RDS theories suggest that, through the plasticity of individual ↔ context relations, means may be found to move all people toward living on a more 'level playing field.' Evidence from RDS-predicated research may be used, then, in policy and program innovations aimed at leveling the playing fields of life for diverse individuals, families, and communities.

Conclusions

The future of RDS theories in developmental science, as a superordinate frame for scholars in psychology, sociology,

economics, biology, medicine, education, and other fields interested in describing, explaining, and optimizing the course of human life, seems assured. One bit of evidence in support of this prediction is that the forthcoming, seventh edition of the *Handbook of Child Psychology* will be published in 2015 by John Wiley and Sons with the expanded title of the *Handbook of Child Psychology and Developmental Science* (Lerner, 2015). Across the four volumes of this publication, volume editors (Volume 1, on theory and methodology; Volume 2, on processes of cognitive development; Volume 3, on processes of socioemotional development; and Volume 4, on ecological processes) emphasize the use of RDS perspectives and, as well, point to the implications of this theoretical frame for both understanding and enhancing *individual ↔ context relations*.

In the future, developmental science will emphasize rigorous, theory-predicated research about the mutually influential relations among individual and ecological processes, about the embodiment of human development within the rich and complex ecology of human life. Methodological innovations about how best to study the relational developmental system in manners maximally sensitive to time, place, and human diversity will therefore continue to be areas of active scholarship. Here we expect greater attention will be paid to tools for multimethod research, to creative ways to partition the x-axis in manners reflecting the diversity of developmental processes, to systems science methods (Urban et al., 2011), and to the triangulation between micro and macro analyses of within-individual change (Werner, 1948, 1957).

In turn, we believe that the application of developmental science will continue to be a core and integrated concern of developmental scientists. The theoretical orientations and interests of new cohorts of developmental scientists, the requirements imposed by funders for producing scholarship that matters in the real world, and the needs for evidence-based means to address the challenges of the twenty-first century will coalesce to make Kurt Lewin's (1952: p. 169) statement "There is nothing so practical as a good theory," an oft-proven empirical reality. Indeed, we believe that the scientific and societal value on which the developmental science of the future will be judged will be whether its theoretical and methodological tools are productive at promoting positive human development across the life span for the diverse people of the world. Therefore, developmental science as a means for promoting social justice may be the most significant lens through which the future contributions of developmental science will be viewed.

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See also: Bruner's Theory of Cognitive Development; Childhood and Adolescence: Developmental Assets; Children, Rights of: Cultural Concerns; Children, Value of; Cognitive Development, Educational Theories of; Cognitive Development: Child Education; Contextual Studies:

Methodology; Control Variables in Research; Cross-Cultural Research Methods in Sociology; Data Collection: Interviewing; Developmental Research across Cultures and Nations: Challenges, Biases, and Cautions; Education and Learning: Lifespan Perspectives; Equivalence and Transfer Problems in Cross-Cultural Research; Families as Educational Settings; Family and Schooling; Gibson's Theory of Perceptual Learning; Human Development, Successful: Psychological Conceptions; Infancy and Human Development; Intelligence, Prior Knowledge, and Learning; Learning Theories and Educational Paradigms; Learning and Instruction: Social-Cognitive Perspectives; Lifelong Learning and Its Support with New Technologies; Lifespan Development, Theory of; Longitudinal Analyses of Sexual Development through Early Adulthood; Longitudinal Data: Event-History Analysis in Discrete Time; Media Effects on Children; Neo-Piagetian Theories of Cognitive Development; Neo-Vygotskian Developmental Theory; Personality Development: Systems Theories; Piaget's Theory of Cognitive Development; Prenatal and Infant Development: Overview, Current Trends, Future Directions; Qualitative Methodology in Developmental Psychology; Scientific Concepts: Development in Children; Self and Identity Development During Adolescence across Cultures; Self-Concepts: Educational Aspects; Self-Development in Childhood and Adolescence; Self-Efficacy: Education Aspects; Vygotsky's Theory of Cognitive Development; Vygotsky's Theory of Human Development and New Approaches to Education.

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