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Journal of Adolescent Research 2008; 23; 245

DOI: 10.1177/0743558408314385

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Exemplifying the Integrations of the Relational Developmental System

Synthesizing Theory, Research, and Application to Promote Positive Development and Social Justice

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Keywords: *relationism; developmental systems; positive youth development; plasticity; outreach scholarship; social justice*

Over the past 35 years, developmental psychology has been transformed into developmental science (Lerner, 2006; cf., e.g., Bornstein & Lamb, 1984, 1988, 1992, 1999 with Bornstein & Lamb, 2005). Today, the cutting edge of the study of the human life span is framed by a developmental systems theoretical model, one that is informed by a postpositivist, relational metatheory that moves beyond classical Cartesian dichotomies, “avoids all splits,” and transforms fundamental antinomies into co-equal and indisso-ciable complementarities (Overton, 2006).

Throughout its history, the study of human development has been the captive of numerous fundamental antinomies (Overton, 1998, 2006). Whereas the original Cartesian splits were between mind and body or subject and object, the most prominent of contemporary split conceptions has been, of course, between nature and nurture or variants of this split, such as maturation versus experience or

Authors' Note: The preparation of this article was supported in part by grants from the National 4-H Council and the John Templeton Foundation. We are grateful to (in alphabetical order) Amy Alberts, Erin Phelps, and Nicole Zarrett for their comments. Requests for information should be sent to Richard M. Lerner, Institute for Applied Research in Youth Development, Tufts University, Medford, MA 02155; e-mail: richard.lerner@tufts.edu

innate versus acquired (Garcia Coll, Bearer, & Lerner, 2004; Lerner, 2002). Other splits that have marked the field include, for example, continuity and discontinuity, stability and instability, constancy versus change, qualitative change versus quantitative change, individual and context, and—most central to the work of Kurtines, Ferrer-Wreder, Berman, Cass Lorente, Silverman, and Montgomery (2008, this issue)—basic science versus applied science.

Today, however, as a consequence of the acceptance across virtually all of developmental science (e.g., Damon & Lerner, 2006) of relational philosophical ideas and associated metamodels of human development (Overton, 2006), all such splits are regarded as being either theoretically and/or empirically flawed; as a result, the crude and counterfactual reduction of causal or fundamental processes in human development into either genetic inheritance or to stimulus-response connections has been eliminated from the mainstream of developmental science (see Damon & Lerner, 2006, or Lerner & Steinberg, 2004, for examples). Such conceptual splitting and the reductionism implicated by splitting are regarded as, at best, *passé*, historical phases in a historical progression to the central emphasis in contemporary developmental science on mutually influential, individual-context relations (represented as individual \leftrightarrow context relations). These relations are the basic focus of developmental analysis (e.g., see Fischer & Bidell, 2006; Overton, 1973, 2006; Sameroff, 1983; Thelen & Smith, 2006).

The focus on a relational, organism-context unit of analysis (Overton & Ennis, 2006) means that the fundamental process of human development involves developmental regulations (i.e., mutually influential relations) among the integrated or interpenetrating processes (levels) of the developmental system (Brandtstädter, 1998, 1999, 2006; Gottlieb, 1997, 1998, 2004; Tobach & Greenberg, 1984). When these interpenetrating processes are mutually beneficial for the relation as a whole, for instance, for both young people and their families or communities, Brandtstädter (1998, 1999, 2006; see, too, Heckhausen, 1999) terms these relations “adaptive developmental regulations.” Moreover, given that temporality (history; Elder, 1980, 1998; Elder & Shanahan, 2006) is an essential level of organization within the developmental system, the potential for plasticity in developmental regulations, that is, for systematic changes in individual \leftrightarrow context relations, is ubiquitous (although differentially probable) within the developmental system and across the life span (Baltes, Lindenberger, & Staudinger, 2006; Gottlieb, 1997, 1998; Lerner, 1984).

The presence of such potential plasticity provides the basis for rejecting the basic versus applied split prototypic in past historical eras of developmental science. To test ideas about the basic relational process of human

development, developmental scientists need to assess whether specific, theoretically predicated relations between the individual and context optimize the likelihood of positive development. An example here is the study of whether relations between, on one hand, an adolescent's intentional self-regulatory processes (e.g., as operationalized through the assessment of selection, optimization, and compensation processes; Freund & Baltes, 2002) and, on the other hand, resources (termed "developmental assets"; Benson, Scales, Hamilton, & Sesma, 2006) in families, schools, and communities account for positive youth development (PYD) across the adolescent period (Gestsdottir & Lerner, 2006; Lerner, 2005; Theokas & Lerner, 2006). The key question addressed in this example is whether the links between intentional self-regulation and developmental assets across the adolescent years constitute adaptive developmental regulations and, as such, account for the emergence of indicators of PYD, for example, the "Five Cs" of such development: competence, confidence, connection, character, and caring (Lerner, 2005; Lerner et al., 2005).

The example illustrates that within a developmental science informed by developmental systems theory and relational metatheory, the goals of science change from the traditional tripartite conception of description, explanation, and manipulation (or control) of phenomena to a tripartite interest in description, explanation, and optimization of change across the life span (Baltes, 1987; Baltes et al., 2006). Because of plasticity, a system that can be changed for the better can also be changed for the worse. However, for obvious ethical reasons the full range of potential variation that could be produced through one's assessments of explanations of human development cannot be empirically tested. Instead, the developmental scientist seeks to specify and test individual \leftrightarrow context relations that are linked developmentally to health and positive functioning.

Capitalizing on the strength inherent in all individuals because of the potential plasticity of their structural and functional attributes, the developmental scientist, in the service of increasing the probability of positive development, is interested in identifying how best to align the strengths of people with the resources for positive development present in their contexts—as both individual and context change. Understanding such alignment between individuals and the actual contexts of their lives, and specifying and studying ways to enhance these alignments across time, embeds the work of developmental science in the actual, key settings of human development, such as the family, school, and community.

The conduct of such scholarship illuminates the character of the basic relational process of human development and, as well, provides information about

how to promote positive human development in real-world settings, in the ecology of everyday life (Bronfenbrenner, 2005). Depending on the levels of analysis involved in the contexts being studied in relation to the developing individuals involved in a given research project, the work of providing information about the promotion of positive development may be termed “intervention research”; such research may be targeted at either the level of community programs or of social policies (Lerner, 2004). Yet, such “applied” work is at the same time the very work that is required to understand the character of (adaptive) developmental regulations. As such, within a developmental systems approach to developmental science, there is no split between theoretically predicated research about basic processes and practically important research elucidating how knowledge may be applied to foster programs or policies better able to promote positive development (Lerner, 1995, 2002, 2004, 2005). For instance, Jensen, Hoagwood, and Trickett (1999) describe an instance of such research in the arena of community-based programs aimed at enhancing mental health. Termed an “outreach scholarship” model, Jensen et al. (1999) explain how researchers and their universities may collaborate with community members to go beyond demonstrating what programs could work in the abstract to identifying what mutually beneficial relations between universities and their community can produce programs that are effective in fostering mental health and, as well, are palatable, feasible, durable, affordable, and hence ultimately sustainable in communities.

The outcome of such synthetic basic \leftrightarrow applied scholarship is twofold: positive human development and social justice! At the individual level, we learn how to identify and align the developmental assets of contexts to promote positive human development among diverse individuals. For instance, in regard to youth development we can answer an optimization question such as “What contextual resources, for what youth, at what points in their adolescence, result in what features of PYD?” In answering this question, we learn at the contextual level the sectors and features of the context that are needed to maximize positive development among diverse youth. For instance, Theokas and Lerner (2006) have found that greater access in schools to high-quality teachers (e.g., as operationalized through lower teacher-student ratios) is linked to PYD; however, the opportunity for a youth to be in such a relation with a teacher obviously varies in relation to socioeconomic issues pertaining to a given school or school district (e.g., involving teacher salaries).

Accordingly, the optimization component of the tripartite scientific agenda of developmental scientists, as well as the synthesis between basic and applied (program and policy) work, means that, in such circumstances, theoretically predicated changes in the developmental system (i.e., changes in the contextual component of the individual \leftrightarrow context relation within

the school or school system in this example) need to be evaluated in regard to whether PYD can be equally promoted among youth whose socioeconomic circumstances lower the probability of positive development. Identifying means to change the individual \leftrightarrow context relation in order to enhance the probability that all youth, no matter their individual characteristics or contextual circumstances, move toward an equivalent chance to experience PYD is scholarship aimed at promoting social justice, that is, the opportunity within a society for all individuals to have the chance to maximize their chances to develop in healthy and positive ways.

In short, then, enhancing the presence of social justice in society is a necessary goal of a developmental science that is based on developmental systems theory and relational metatheory; that is concerned, therefore, with learning how to foster adaptive developmental regulations between all individuals and all contexts; and, as such, that is committed to the tripartite scientific mission of description, explanation, and optimization. Consistent with the integration of basic and applied science inherent in the developmental systems perspective, the developmental scientist, through her or his research, needs to be as much an agent of social change in the direction of social justice as a scholar seeking to understand the nomothetic and idiographic laws of human development. Indeed, without theory-predicated tests of how to foster social justice for all youth, our research will be inevitably limited in its potential generalizability and ecological validity. Without the promotion of social justice as a key scholarly goal, developmental science is critically incomplete.

The Miami Youth Development Project (YDP)

Against the backdrop of this summary of the features of contributions of a developmental systems and relational metatheoretical approach to developmental science, it is clear that the Miami YDP represents a currently singular exemplar of the multiple integrations involved in this approach to scholarship. The YDP represents watershed work within developmental science, demonstrating, within one project, the key relational integrations—between individual and context, theory and research (e.g., in the innovative procedures involved in relational data analysis [RDA]), qualitative and quantitative change, university and community, and basic and applied—heretofore discussed and pursued as largely disconnected facets of the developmental systems literature.

No other project to date demonstrates that it is feasible and theoretically and empirically productive to pursue simultaneously these several instances

of relational developmental science. Similarly, no other project exists that uses such comprehensive integrations to show the importance of the basic \leftrightarrow applied integration for the promotion of PYD. Indeed, what is most important about the YDP is that it demonstrates the power and potential of the relational developmental systems approach in facilitating significant change in the lives of youth. Kurtines, Montgomery, and their colleagues and students have given developmental scientists and the youth, families, and communities they seek to understand and serve through their scholarship a potent example of how researchers can transcend the confines of conceptual reductionism, or an exclusive reliance on a single methodology (e.g., randomized control trials; cf. Green & McCall, 2005) to address all issues of science, application, and evaluation raised in regard to enhancing the lives of the diverse young people of America.

Indeed, the approach to relational developmental science taken within the Miami YDP illustrates the importance, in the study of human development, of avoiding “mindless methodologism” and, instead—as is always the case in good science—selecting all features of one’s methodology based on the nature of the (theoretically predicated) questions asked. Theory and methods should operate in a relationally integrated fashion. All too often—arguably particularly in randomized control trials (RCT) research—there is an absence of strong developmental theory in the framing of the research. Allegiance to one method should not determine or foreclose the questions asked by developmental scientists or program professionals. Moreover, and also always the case in good science, we need to understand that all methods have both benefits and limitations—including the ill-named gold standard RCT—and, as such, it is critical to always triangulate across methods to separate true variance from method variance.

The Miami YDP also illustrates the tripartite relational integration operating within all postpostivist science—including relational developmental science—of theory, methods, and observations, as this relational process generates knowledge in an ever widening directional spiral. Whereas earlier eras claimed induction, deduction, or an aggregate of the two (hypothetico-deductive) as the logic of science, contemporary science acknowledges that all observations are necessarily grounded and informed by concepts and methods that lead to the next generation of theories/concepts and methods, thus moving to new observations in a never ending recursive movement. As Rozeboom (1997) has pointed out, the logic of “good science is abductive, not hypothetico-deductive” (p. 335; see also Hanson, 1958). Within the YDP, this important feature is nicely demonstrated in RDA. Here, starting from observations grounded and informed by relational metatheory and developmental systems theory, the project moves to qualitative and quantitative data analysis, potentially yielding

new categories as these co-act with theories to produce new observations as the recursive cycle continues.

From the relational perspective, the YDP illustrates the legitimacy of qualitative research as an integral arrow in the methodological quiver of developmental science. Furthermore, it illustrates how developmental knowledge gained through basic empirical research and articulated by the users of our science becomes an important feature of our scholarship and its applied use, a point that—as noted earlier—has been emphasized by Jensen et al. (1999) in their explication of outreach research. By understanding the qualities of life that young people and their parents, teachers, peers, and mentors believe matter, by triangulating such assessments with knowledge gained (through many different types of observational methods and research designs) of the youth \leftrightarrow context relations that reflect the basic relational process of human development, we can conduct scholarship that will matter in deep, valued, and important ways to the diverse young people of our nation.

With such research as the basis of our policies and program, we in turn can take actions that matter for promoting positive development and, as such, for enhancing social justice and civil society in our democracy. Indeed, fulfilling the aspiration of developmental science to further social justice, the scientists whose work is reported in this issue demonstrate that complex developmental science can be productively enacted to address the certainly equally complicated challenges faced by a nation seeking to maximize the chances that all youth will have an opportunity to do well and prosper across life.

Conclusions

The future of civil society in the world rests on the promotion of positive development and a commitment to positive and socially just community contributions by the young (Lerner, 2004). Adolescents represent, at any point in history, the generational cohort that must be prepared to assume the quality of leadership of self, family, community, and society that will maintain and improve human life. As illustrated powerfully by the work reported in this issue, developmental scientists have a vital role to play in enhancing, through the generation of integrated basic and applied knowledge, the probability that adolescents will become fully engaged citizens who are capable of, and committed to, making these contributions.

The work of the Miami YDP exemplifies the idea that contemporary developmental science—predicated on a relational metatheory and developmental systems theories that frame research into dynamic relations between diverse individuals and contexts—constitutes an approach that may integrate

the scholarship pertinent to these diverse levels of organization and by so doing may facilitate understanding and the promotion of positive human development. This approach to developmental science underscores the diverse ways in which adolescents, in dynamic exchanges with their natural and designed ecologies, can move along pathways marked by opportunities for health and positive development. As Bronfenbrenner (2005) eloquently puts it, it is these relations that make human beings human.

In sum, through developmental science research predicated on relational metatheory and developmental systems models, we have a historically unique opportunity to conduct scholarship that will fruitfully address what may be argued to be the “really big” question for science and society, that is, “What actions, of what duration, with what youth, in what communities, at what points in ontogenetic and historical time, will result in what features of positive youth development and contributions to self, family, community, and civil society?” Or, more simply, we may answer the question, “How do we foster mutually beneficial relations between healthy youth and a nation marked by social justice, democracy, and liberty?” The scholarship reported in this issue makes significant and, to date, singularly integrative contributions to answering this question.

References

- Baltes, P. B. (1987). Theoretical propositions of life-span developmental psychology: On the dynamics between growth and decline. *Developmental Psychology*, 23, 611-626.
- Baltes, P. B., Lindenberger, U., & Staudinger, U. M. (2006). Lifespan theory in developmental psychology. In R. M. Lerner (Vol. Ed.) & W. Damon & R. M. Lerner (Eds.), *Handbook of child psychology: Vol. 1. Theoretical models of human development* (6th ed., pp. 569-664). Hoboken, NJ: John Wiley.
- Benson, P. L., Scales, P. C., Hamilton, S. F., & Sesma, A., Jr. (2006). Positive youth development: Theory, research, and applications. In R. M. Lerner (Vol. Ed.) & W. Damon & R. M. Lerner (Eds.), *Handbook of child psychology: Vol. 1. Theoretical models of human development* (6th ed., pp. 894-941). Hoboken, NJ: John Wiley.
- Bornstein, M. H., & Lamb, M. E. (Eds.) (1984). *Developmental psychology: An advanced textbook*. Hillsdale, NJ: Lawrence Erlbaum.
- Bornstein, M. H. & Lamb, M. E. (Eds.). (1988). *Developmental psychology: An advanced textbook* (2nd ed.). Hillsdale, NJ: Lawrence Erlbaum.
- Bornstein, M. H., & Lamb, M. E. (1992). *Development in infancy*. New York: McGraw-Hill.
- Bornstein, M. H., & Lamb, M. E. (Eds.). (1999). *Developmental psychology: An advanced textbook* (4th ed.). Mahwah, NJ: Lawrence Erlbaum.
- Bornstein, M. H., & Lamb, M. E. (Eds.). (2005). *Developmental science: An advanced textbook* (5th ed.). Mahwah, NJ: Lawrence Erlbaum.
- Brandtstädter, J. (1998). Action perspectives on human development. In W. Damon & R. M. Lerner, *Handbook of child psychology: Vol. 1. Theoretical models of human development* (5th ed., pp. 807-863). New York: John Wiley.

- Brandtstädter, J. (1999). The self in action and development: Cultural, biosocial, and ontogenetic bases of intentional self-development. In J. Brandtstädter & R. M. Lerner (Eds.), *Action and self-development: Theory and research through the life-span* (pp. 37-65). Thousand Oaks, CA: Sage.
- Brandtstädter, J. (2006). Action perspectives on human development. In R. M. Lerner (Vol. Ed.) & W. Damon & R. M. Lerner (Eds.), *Handbook of child psychology: Vol. 1. Theoretical models of human development* (6th ed., pp. 516-568). Hoboken, NJ: John Wiley.
- Bronfenbrenner, U. (2005). *Making human beings human: Bioecological perspectives on human development*. Thousand Oaks, CA: Sage.
- Damon, W., & Lerner, R. M. (Eds.). (2006). *Handbook of child psychology* (6th ed, vols. 1-4). Mahwah, NJ: Lawrence Erlbaum.
- Elder, G. H., Jr. (1980). Adolescence in historical perspective. In J. Adelson (Ed.), *Handbooks of adolescent psychology* (pp. 3-46). New York: John Wiley.
- Elder, G. H., Jr. (1998). The life course and human development. In R. M. Lerner (Vol. Ed.) & W. Damon (Ed.), *Handbook of child psychology: Vol. 1 Theoretical models of human development* (5th ed., pp. 939-991). New York: John Wiley.
- Elder, G. H., Jr., & Shanahan, M. J. (2006). The life course and human development. In R. M. Lerner (Vol. Ed.) & W. Damon & R. M. Lerner (Eds.), *Handbook of child psychology: Vol. 1. Theoretical models of human development* (6th ed., pp. 665-715). Hoboken, NJ: John Wiley.
- Fischer, K. W., & Bidell, T. R. (2006). Dynamic development of action, thought, and emotion. In R. M. Lerner (Vol. Ed.) & W. Damon & R. M. Lerner (Eds.), *Handbook of child psychology: Vol. 1. Theoretical models of human development* (6th ed., pp. 313-399). Hoboken, NJ: John Wiley.
- Freund, A. M., & Baltes, P. B. (2002). Life-management strategies of selection, optimization and compensation: Measurement by self-report and construct validity. *Journal of Personality and Social Psychology*, 82, 642-662.
- Garcia Coll, C., Bearer, E., & Lerner, R. M. (Eds.). (2004). *Nature and nurture: The complex interplay of genetic and environmental influences on human behavior and development*. Mahwah, NJ: Lawrence Erlbaum.
- Gestsdottir, S., & Lerner, R. M. (2007). Intentional self-regulation and positive youth development in early adolescence: Findings from the 4-H Study of Positive Youth Development. *Developmental Psychology*, 43(2), 508-521.
- Green, B. L., & McCall, R. B. (2005). Policy-relevant methods in applied developmental science. In C. B. Fisher & R. M. Lerner (Eds.) *Applied developmental science: An encyclopedia of research, policies, and programs* (pp. 845-849). Thousand Oaks, CA: Sage.
- Gottlieb, G. (1997). *Synthesizing nature-nurture: Prenatal roots of instinctive behavior*. Mahwah, NJ: Lawrence Erlbaum.
- Gottlieb, G. (1998). Normally occurring environmental and behavioral influences on gene activity: From central dogma to probabilistic epigenesis. *Psychological Review*, 105, 792-802.
- Gottlieb, G. (2004). Normally occurring environmental and behavioral influences on gene activity. In C. Garcia Coll, E. Bearer, & R. M. Lerner (Eds.), *Nature and nurture: The complex interplay of genetic and environmental influences on human behavior and development* (pp. 85-106). Mahwah, NJ: Lawrence Erlbaum.
- Hanson, N. R. (1958). *Patterns of discovery*. London: Cambridge University Press.
- Heckhausen, J. (1999). *Developmental regulation in adulthood: Age-normative and sociocultural constraints as adaptive challenges*. New York: Cambridge University Press.
- Jensen, P., Hoagwood, K., & Trickett, E. (1999). Ivory towers or earthen trenches? Community collaborations to foster "real world" research. *Applied Developmental Science*, 3(4), 206-212.

- Kurtines, W. M., Montgomery, M. J., Ferrer-Wreder, et al. (2008, this issue). Introduction to the special issue: Promoting positive youth development: New directions in developmental theory, methods, and research. *Journal of Adolescent Research*, 23, 233-244.
- Lerner, R. M. (1984). *On the nature of human plasticity*. New York: Cambridge University Press.
- Lerner, R. M. (1995). *America's youth in crisis: Challenges and options for programs and policies*. Thousand Oaks, CA: Sage.
- Lerner, R. M. (2002). *Concepts and theories of human development* (3rd ed.). Mahwah, NJ: Lawrence Erlbaum.
- Lerner, R. M. (2004). *Liberty: Thriving and civic engagement among American youth*. Thousand Oaks, CA: Sage.
- Lerner, R. M. (2005, September). *Promoting positive youth development: Theoretical and empirical bases* (White paper prepared for the Workshop on the Science of Adolescent Health and Development, National Research Council/Institute of Medicine). Washington, DC: National Academies of Science.
- Lerner, R. M. (2006). Developmental science, developmental systems, and contemporary theories of human development. In R. M. Lerner (Vol. Ed.) & W. Damon & R. M. Lerner (Eds.), *Handbook of child psychology: Vol. 1. Theoretical models of human development* (6th ed., pp. 1-17). Hoboken, NJ: John Wiley.
- Lerner, R. M., Lerner, J. V., Almerigi, J., Theokas, C., Phelps, E., Gestsdottir, S., et al. (2005). Positive youth development, participation in community youth development programs, and community contributions of fifth grade adolescents: Findings from the first wave of the 4-H Study of Positive Youth Development. *Journal of Early Adolescence*, 25, 17-71.
- Lerner, R. M., & Steinberg, L. (Eds.). (2004). *Handbook of adolescent psychology*. New York: John Wiley.
- Overton, W. F. (1973). On the assumptive base of the nature-nurture controversy: Additive versus interactive conceptions. *Human Development*, 16, 74-89.
- Overton, W. F. (1998). Developmental psychology: Philosophy, concepts, and methodology. In R. M. Lerner (Vol. Ed.) & W. Damon (Ed.), *Handbook of child psychology: Vol. 1. Theoretical models of human development* (5th ed., pp. 107-187). New York: John Wiley.
- Overton, W. F. (2006). Developmental psychology: Philosophy, concepts, methodology. In R. M. Lerner (Vol. Ed.) & W. Damon & R. M. Lerner (Eds.), *Handbook of child psychology: Vol. 1. Theoretical models of human development* (6th ed., pp. 18-88). Hoboken, NJ: John Wiley.
- Overton, W. F., & Ennis, M. (2006). Cognitive-developmental and behavior-analytic theories: Evolving into complementarity. *Human Development*, 49, 143-172.
- Rozeboom, W. W. (1997). Good science is abductive, not hypothetico-deductive. In L. L. Harlow, S. A. Mulaik, & J. H. Steiger (Eds.), *What if there were no significance tests?* (pp. 335-392). Mahwah, NJ: Lawrence Erlbaum.
- Sameroff, A. J. (1983). Developmental systems: Contexts and evolution. In W. Kessen (Ed.), *Handbook of child psychology: Vol. 1. History, theory, and methods* (pp. 237-294). New York: John Wiley.
- Thelen, E., & Smith, L. B. (2006). Dynamic systems theories. In R. M. Lerner (Vol. Ed.) & W. Damon & R. M. Lerner (Eds.), *Handbook of child psychology: Vol. 1. Theoretical models of human development* (6th ed., pp. 258-312). Hoboken, NJ: John Wiley.
- Theokas, C., & Lerner, R. M. (2006). Promoting positive development in adolescence: The role of ecological assets in families, schools, and neighborhoods. *Applied Developmental Science*, 10(2), 61-74.
- Tobach, E., & Greenberg, G. (1984). The significance of T. C. Schneirla's contribution to the concept of levels of integration. In G. Greenberg & E. Tobach (Eds.), *Behavioral evolution and integrative levels* (pp. 1-7). Hillsdale, NJ: Lawrence Erlbaum.

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