

Adolescence: Exploration and Self-Regulation of the Unknown



Jacobs Foundation Conference 2011

Schloss Marbach

6 – 8 April 2011

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Adolescence: Exploration and Self-Regulation of the Unknown

Introductory Thoughts

Jacobs Foundation Conference, Marbach Castle, 6 – 8 April, 2011

Adolescence is characterized by rapid internal and external changes. For many adolescents this life period implies relinquishing the more guided structure of childhood to find individual pathways towards an unknown future. During this conference, we will ask what cognitive, affective, and behavioral self-regulation strategies adolescents can use to relinquish the familiar and to explore and master the unknown. We will also analyze how adolescents can resolve conflicts between goals that preserve the familiarity of the past versus goals that embrace the unfamiliarity of the future, and how they can effectively negotiate conflicts among new goals. Investigating self-regulation strategies geared towards conquering the unknown future will in turn inform basic research on self-regulation, as adolescence provides a window into how people spontaneously solve new and ill-defined tasks.

To conceptualize adolescence as a transition from the more familiar to the unknown implies that educators of adolescents face a puzzling question: How should they prepare their protégés? Should they educate them for living in an autocratic or democratic political system, a homogeneous or a heterogeneous society, a conservative or a liberal community, for a settled or a mobile way of life, a stable or a flexible professional identity, and an expanding or a shrinking economy? Adding to this challenging puzzle, educators face a dearth of research on which self-regulation strategies are conducive for mastering different types of contexts. We therefore hope to discuss which educational practices produce self-regulatory skills effective for various ways of living one's life and especially for adapting to changing life contexts. Specifically, we will ask to what extent different educational practices (e.g., those focused on rituals versus flexibility; on authoritarian, authoritative, or laissez-faire practices) help adolescents develop self-regulatory skills that promote the mastery of developmental tasks in their given cultural and institutional contexts.

The 2011 Jacobs Foundation Conference will bridge research on the processes of effective self-regulation with classic developmental approaches in the field of adolescence. In an effort to strengthen a transformative and interdisciplinary approach, we have also invited scientists from related fields. Adding their expertise will support the conference in its aim to move on to a new generation of translational research. This new generation of translational research, by integrating diverse areas of knowledge and methods as well as new technological possibilities will open up creative ways of supporting adolescents in mastering their developmental tasks during a time of rapid societal, environmental, and technological change.

We know that in the two days of the conference the questions posed above can only be addressed rudimentarily. However, we hope that our discussions will stimulate further ideas and subsequent research that puts these ideas to an empirical test. We also hope that this conference will motivate scientists from different fields to collaborate on inter-disciplinary projects that elucidate the role of self-regulation in adolescence – and in other life transitions as well.

This is the 22nd Conference in the prestigious series of Jacobs Foundation Conferences at Marbach Castle, a site known for inspiring scientific exchange and vivid interdisciplinary dialogue. All of what we will experience at the conference and the research that will emerge from it, we owe to the Jacobs Foundation and, in particular, to its Chairman Dr. Johann Christian Jacobs. We are honored to be their guests at Schloss Marbach, and very much thank them for their most generous support. We are also grateful to the members of the Board of Trustees – in particular to Professor Marta Tienda – for their support and their encouraging words, and to Simon Sommer and the Jacobs Foundation Management Team for their excellent work in preparing this special event.

Gabriele Oettingen and Peter M. Gollwitzer

Conference Organizers

Conference Program

Wednesday, April 6, 2011

17.45

Address of Welcome

Christian Jacobs, Chairman of the Jacobs Foundation

Introductory Remarks

Gabriele Oettingen, Peter Gollwitzer, Conference Organizers

Simon Sommer, Jacobs Foundation

18.00-19.30

Session 1: Self Regulation

Walter Mischel

Gabriele Oettingen

Peter Gollwitzer

19.30 Apéro (Cocktail Reception)

20.00 Dinner

Thursday, April 7, 2011

8.30 – 10.00

Session 2: Interdisciplinary Perspectives on Adolescence

Joseph Kett

Sir Michael Rutter

Stephen Suomi

10.00 – 10.30 Coffee Break

10.30 – 12.00

Session 3: Self-Regulation Models in Adolescence

Jaquelynne Eccles

Nancy Eisenberg

Laurie Chassin

Conference Program

12.00 – 12.30

Poster Session with Young Scholars

Lucy Bowes

Laura di Giunta

Kevin King

13.00 – 14.00 Lunch

14.00 – 15.30

Session 4: Neuropsychological Aspects of Self-Regulation in Adolescence

Philip Zelazo

Sarah-Jayne Blakemore

Laurence Steinberg

15.30 – 16.00 Coffee Break

16.00 – 17.30

Session 5: Self-Regulation of Aggressive Behavior in Adolescence

Kenneth Dodge

David Farrington

Frans De Waal

17.30 to 18.30

Poster Session with Young Scholars

Kristen Lyons

Iroise Dumontheil

Kathryn Monahan

Anne-Marie Iselin

Maria Ttofi

Jennifer Pokorny

20.00 Dinner

Conference Program

Friday, April 8, 2011

8.30 – 10.00

Session 6: Self-Regulation and Psychopathology in Adolescence

Julia Graber

Philip Costanzo

Susan Nolen-Hoeksema

10.00 – 10.30 Coffee Break

10.30 – 12.00

Session 7: Educational Context and Self-Regulation in Adolescence

Ulrich Trautwein

Jari-Erik Nurmi

Carol Dweck

12.00 – 13.00

Poster Session with Young Scholars

Lisa Sontag

Katie McLaughlin

Noona Kiuru

Veronika Job

Steinunn Gestsdottir

13.00 – 14.00 Lunch

14.00 – 15.30

Session 8: Societal Context and Self-Regulation in Adolescence

Rainer Silbereisen

Alice Schlegel

Jeanne Brooks-Gunn

15.30 – 16.00 Coffee Break

Conference Program

16.00 – 16.30

Session 9: Interventions to Improve Self-Regulation in Adolescence

John Weisz

16.30 – 17.30

Final Discussion

19.30 Apéro

20.00 Dinner

Professor Walter Mischel, Ph.D.

Department of Psychology
Columbia University, New York, USA



Scientific Career

1951	B.A in, Psychology, New York University
1953	M.A. in Clinical Psychology, College of the City of New York
1956	Ph.D. in Clinical Psychology, Ohio State University
1958-62	Assistant Professor and Lecturer, Harvard University, Dept. of Social Relations
1962-1966	Associate Professor of Psychology, Stanford University
1966-1983	Professor of Psychology, Stanford University (Chair, 1977-78 & 1982-83)
1983-1994	Professor of Psychology, Columbia University (Chair, 1988-1991)
1994-present	Niven Professor of Humane Letters in Psychology, Columbia University
2004	National Academy of Sciences
2008-2009	President, Association for Psychological Science
2009	Scientific Honoree, Foundation for the Advancement of Behavioral and Brain Sciences
2010	Doctor Philosophiae Honoris Causa, Hebrew University of Jerusalem
2011	Grawemeyer Award in Psychology

Research Interests

Personality structure, process, and development
Self regulation (aka willpower)

Selected Publications

- Mischel, W. (in press). Self-control theory. In P. A. M. Van Lange, A. Kruglanski, & E. T. Higgins (Eds.), *Handbook of Theories of Social Psychology*. Thousand Oaks, CA: Sage.
- Mischel, W., & Ayduk, O. (2011). Willpower in a Cognitive-Affective Processing System: The dynamics of delay of gratification. In K. D. Vohs & R. F. Baumeister (Eds.), *Handbook of self-regulation: Research, Theory, and Applications* (2nd ed., pp. 83-105). New York: Guilford.
- Mischel, W., & Shoda, Y. (1995). A cognitive-affective system theory of personality: Reconceptualizing situations, dispositions, dynamics, and invariance in personality structure. *Psychological Review*, 102, 246-268.
- Mischel, W., Shoda, Y., & Rodriguez, M. L. (1989). Delay of gratification in children. *Science*, 244, 933-938.
- Mischel, W. (1968). *Personality and assessment*. New York: Wiley.

Delay Ability and Adolescent Self-Regulation

Walter Mischel

I will discuss how the ability to delay gratification, visible and measurable early in life, plays out in the course of development. The focus will be on the role of this ability in adolescent self-regulation and social behavior, drawing on data from 3 longitudinal studies with diverse cohorts. Young children's ability to delay gratification, assessed in simple laboratory situations (e.g., seconds waiting to obtain a larger but delayed little treat) surprisingly predicts a wide variety of adaptive and consequential life outcomes over the course of development and into adulthood. This ability also appears to have significant long-term protective effects, buffering vulnerable at risk individuals against the development of various interpersonal difficulties (e.g., high aggression, bullying, and externalizing behavior, peer rejection, withdrawal-depression) and diminished well-being (e.g., low self-worth, higher drug use, development of features of borderline personality).

Particularly promising, experimental studies have identified key attention control and cognitive appraisal strategies for "cooling" the immediate temptations and thus enable delay of gratification even in children for whom it is difficult. Priming these strategies allows young children who on their own are unable to delay for more than a few seconds to wait successfully in our laboratory situations. In intensive observational studies of aggressive children ages 7-13, their spontaneous use of such cooling strategies on the delay of gratification measure (waiting longer to get more M&M candies later) was strongly correlated with less physical and verbal aggression in vivo during the course of a 6 week residential summer camp. The expression of aggression, closely observed across diverse psychological trigger situations, was highly contextualized. It played out in distinctive, stable IF...THEN..., behavioral signatures, that point to the underlying cognitive-affective information-processing dynamics that generate them.

Taken collectively, findings on the mechanisms enabling delay ability open a route for teaching and implementing delay strategies early in life, but the efficacy of such efforts for obtaining long-term adaptive change in self-regulation remains to be seen. In our longitudinal projects, on-going interdisciplinary follow up studies are now testing hypothesized links between cognitive neuroscience measures of basic cognitive-control processes, including with fMRI, and distinctive life trajectories of high and low self-control identified in our longitudinal research.

Professor Gabriele Oettingen, Ph.D.

Department of Psychology
New York University, USA

University of Hamburg, Germany



Scientific Career

1982	M.A. in Biology, Ludwig-Maximilians-University, München
1986	Ph.D. in Biology, Ludwig-Maximilians-University, München
1996	Habilitation in Psychology, Free University, Berlin
1996–1999	Senior Researcher, Max Planck Institute for Human Development, Center for Life Span Psychology, Berlin
2000-present	Professor of Psychology, Psychology Department, New York University Professor of Psychology, Department of Psychology, University of Hamburg
2002-present	

Research Interests

The motivating power of thinking about the future: Expectations versus fantasies
Self-regulation of goal commitment and goal attainment
Behavior change interventions
Life span development of self-regulation and resilience
Nonconscious goal pursuit

Selected Publications

- Oettingen, G., Mayer, D., & Thorpe, J. (2010). Self-regulation of commitment to reduce cigarette consumption: Mental contrasting of future with reality. *Psychology and Health, 25*, 961-977.
- Oettingen, G., Stephens, E. J., Mayer, D., & Brinkmann, B. (2010). Mental contrasting and the self-regulation of helping relations. *Social Cognition, 28*, 490-508.
- Oettingen, G., Mayer, D., Sevincer, A. T., Stephens, E. J., Pak, H., & Hagenah, M. (2009). Mental contrasting and goal commitment: The mediating role of energization. *Personality and Social Psychology Bulletin, 35*, 608-622.
- Oettingen, G., & Mayer, D. (2002). The motivating function of thinking about the future: Expectations versus fantasies. *Journal of Personality and Social Psychology, 83*, 1198-1212.
- Oettingen, G., Pak, H., & Schnetter, K. (2001). Self-regulation of goal setting: Turning free fantasies about the future into binding goals. *Journal of Personality and Social Psychology, 80*, 736-753.

From Fantasies to Action

Gabriele Oettingen

Positive fantasies about a desired future undermine effort, success, and well-being. For example, students who positively fantasize about excelling in school achieved lower grades and missed more school days, while freshmen in college became more depressed over time. However, people can use such positive fantasies as a self-regulatory tool to commit to and attain promising and desired futures: People only need to juxtapose their fantasies with the obstacles that reality puts in their way. Such mental contrasting of future and reality makes people commit to goals in a smart way: They commit to reach those desired futures that can be realized and actively let go of those that cannot. On the contrary, only fantasizing about the desired future or only dwelling on the obstacles of the present reality does not affect goal commitments regardless of whether the probabilities of success are high or low.

I will present experimental studies with adolescents and young adults that attest to the principles of mental contrasting, arguing that it produces selective goal commitment through changes in implicit cognition (e.g., strength of associations between future and reality) and implicit motivation (e.g., systolic blood pressure). The result is fervid goal pursuit or active letting go. I will also address situational and developmental factors (e.g., mood, parental responsiveness) that trigger the spontaneous use of mental contrasting.

Intervention studies show that mental contrasting can be acquired and used as a cost- and time-effective meta-cognitive strategy that helps people initiate and maintain behavior change during everyday life (e.g., studying, dieting, resolving interpersonal conflict). Applying mental contrasting as a meta-cognitive strategy allows people to realize their idiosyncratic fantasies and wishes. Mental contrasting generalizes across life domains, and thus adolescents can use this self-regulatory strategy to master the ever-changing demands of their everyday life as well as reach the dreams of their long-term future.

Professor Peter M. Gollwitzer, Ph.D.

Department of Psychology
New York University, USA

University of Konstanz, Germany



Scientific Career

1973	B.A., Universität Regensburg
1977	M.A., Ruhr-Universität Bochum
1981	Ph.D., University of Texas, Austin
1987	Habilitation, Ludwig-Maximilians-Universität, München
1989-1992	Senior Researcher, Max-Planck-Institute for Psychological Research, Research Group "Intention and Action" (Head), München
1993-present	Professor of Psychology, Department of Psychology, University of Konstanz
1999-present	Professor of Psychology, Psychology Department, New York University

Research Interests

Mindset theory of action phases
Goal intentions versus implementation Intentions
Self-completion theory
Nonconscious goal pursuit

Selected Publications

- Gollwitzer, P. M., Sheeran, P., Trötschel, R., & Webb, T. (in press). Self-regulation of behavioral priming effects. *Psychological Science*.
- Gollwitzer, P. M., Sheeran, P., Michalski, V., & Seifert, A. E. (2009). When intentions go public: Does social reality widen the intention-behavior gap? *Psychological Science*, 20, 612-618.
- Gollwitzer, P. M., & Sheeran, P. (2006). Implementation intentions and goal achievement: A meta-analysis of effects and processes. *Advances in Experimental Social Psychology*, 38, 69-119.
- Gollwitzer, P. M. (1999). Implementation intentions: Strong effects of simple plans. *American Psychologist*, 54, 493-503.
- Gollwitzer, P. M., & Brandstatter, V. (1997). Implementation intentions and effective goal pursuit. *Journal of Personality and Social Psychology*, 73, 186-199.

The Implementation of Goals

Peter M. Gollwitzer

Forming strong goal commitments is a necessary first step to securing goal attainment. For example, adolescents who want to achieve more autonomy in organizing their lives in the social, school, or health domains are well advised to strongly commit to respective goals. However, strong goal commitments are not sufficient when goals are difficult to attain. For meeting difficult goals it becomes necessary that people make their goal striving particularly effective. But what can people do to enhance their goal striving, that is, effectively solve the typical problems of goal striving such as getting started, staying on track, selecting instrumental means, and acting efficiently?

A promising answer is the following: People may plan out in advance how they want to solve these problems of goal implementation. I will describe research showing that making if-then plans (i.e., forming implementation intentions) on how to deal with these problems is indeed a very useful strategy to solve them. After a short report on research investigating how implementation intentions achieve these beneficial effects (i.e., by automating goal striving), I will discuss the question of whether implementation intentions can be used to increase will power on the spot whenever it is needed. Research provides a positive answer to this question showing that implementation intentions help people to meet their goals even when they are facing immutable hindrances from within (e.g., lack of cognitive capabilities) or from outside (i.e., difficult social situations and task demands that overtax executive functions); some research shows that implementation intentions can increase willpower even in those samples (e.g., children with ADHD) that are known to suffer from impaired action control.

I will conclude that forming implementation intentions is an easy to use self-regulation tool that should allow adolescents to meet their goals – and this without engaging in major efforts of self-change or attempts to change their social settings.

Professor Joseph Kett, Ph.D.

Department of History
University of Virginia, Charlottesville, USA



Scientific Career

1964	B.A. in Psychology, Harvard University Ph.D. in History, Harvard University
1966	Assistant Professor of History, University of Virginia
1970	Associate Professor, History, University of Virginia
1976	Professor, History, University of Virginia
2006-present	James Madison Professor of History, University of Virginia

Research Interests

Concept development in infancy
History of Childhood and Youth

Selected Publications

- Kett, J. (1994). *The Pursuit of Knowledge under Difficulties; From Self-Improvement to Adult Education, 1780-1990*. Stanford University Press.
- Hirsch, Jr., E.D., Trefil, J. & Kett, J. (1989). *Dictionary of Cultural Literacy*. Houghton Mifflin.
- Kett, J. (1977). *Rites of Passage: From Youth to Adolescence in America, 1790-Present*. Basic Books.
- Kett, J. (1968). *The Formation of the American Medical Profession: The Role of Institutions, 1780-1860*. Yale Press.

Dependence and Independence in the History of Youth

Joseph Kett

Setting and implementing goals requires the presence of live options, which have expanded since the democratic, commercial, and industrial revolutions. One effect of these revolutions lay in the gradual replacement of birthright by chronological age in structuring life experiences. In early modern Europe and America an individual's inherited social rank played a more significant role than chronological age in conditioning the experience of growing up. Dependent on birthright, rank enabled teenagers to gain election to the House of Commons, but for most people options were neither numerous nor live. Over time, the tendency has been toward greater uniformity in the ages at which people attended and left school, married, bore children, started work, and died.

A second effect lay in the greater isolation of young children, adolescents, and young adults in different types of schools and, especially between 1890 and 1920, the idea of adolescence as a moratorium on the assumption of adult responsibilities. This isolation has led to the practice of defining stages of life in terms of stages of schooling (e.g., adolescence, high school) and to a preoccupation among teachers, counselors, and moralists to smoothing the path from adolescence to adulthood. In the U.S., for example, the first half of the twentieth century witnessed the rise of allegedly scientific tests for intelligence, vocational interests, and personality that were designed to ease the path to adulthood by identifying the essential attributes of minors and directing them to appropriate callings. All of this stood in contrast to the prevailing view during early industrialization that emphasized the early assumption of adult responsibilities by the exertion of will power and "decision of character."

Regardless of attempts to isolate youth, the economic and media revolutions of the twentieth century ensured the exposure of young people to the freedoms increasingly enjoyed by adults. As the experiences of young people became more graded by age, adults positioned themselves as observers of the exotic and seemingly irresponsible world of teenagers. Describing the "revolt of modern youth" became a favorite theme of counselors. Yet the relationship between changes in the experience of youth and shifts in the larger society has been closer than loose talk about the "revolt of modern youth" suggests. Young people have changed in ways that parallel other age groups. For example, the sexual revolution of the 1920s was occurring among both young people and their elders. Since 1950, adult fears "epidemics" of juvenile delinquency and teen pregnancies have told us more about the process by which adults adjust themselves to cultural change than about teenagers' behaviors.

Professor Sir Michael Rutter, M.D.

Social Genetic & Developmental Psychiatry Centre
Institute of Psychiatry
King's College London, UK

**Scientific Career**

1955	M.B. ChB, University of Birmingham
1963	M.D. Honours, University of Birmingham
1962-1965	Member of the Scientific Staff, MRC Social Psychiatry Research Unit
1965-1973	Senior Lecturer and then Reader, University of London Institute of Psychiatry
1984-1998	Honorary Director, MRC Unit in Child Psychiatry, IoP, London
1994-1998	Honorary Director, Social Genetic & Developmental Psychiatry Research Centre, IoP
1998-present	Professor of Developmental Psychopathology, MRC Social, Genetic & Developmental Psychiatry Research Centre

Research Interests

Continuities & discontinuities in normal and abnormal psychological development
Psychosocial influences
Use of natural experiments to test for environmental mediation of risks
Gene-environment interdependence
Epidemiological / longitudinal studies

Selected Publications

- Rutter, M., & Sonuga-Barke, E.J. (Eds) (2010). Deprivation-specific psychological patterns: Effects of institutional deprivation. *Monographs of the Society for Research in Child Development*, 75:1.
- Rutter, M. (2007). Proceeding from observed correlations to causal inference: The use of natural experiments. *Perspectives in Psychological Science*, 2, 377-395.
- Rutter, M. (2008). Biological implications of gene-environment interaction. *Journal of Abnormal Child Psychology*, 36: 969-75.
- Rutter M., & Plomin R. (2008). Pathways from science findings to health benefits. *Psychological Medicine*; 38, 1-4.
- Rutter, M., Kim-Cohen, J., & Maughan, B. (2006). Continuities and discontinuities in psychopathology between childhood and adult life. *Journal of Child Psychology and Psychiatry*, 163, 1009-1018.

Adolescence: Biology, Epidemiology and Process

Sir Michael Rutter

It is argued that adolescence should be viewed as a particularly important transition because: a) it is accompanied by major changes in patterns of psychopathology; b) it involves comparably great changes in biology; and c) there are major alterations in life circumstances. However, these key features must be viewed in the context of relevant lifespan process considerations. The evidence on each of these issues is succinctly reviewed, with an emphasis on the implications for causal mechanisms.

Professor Stephen J. Suomi, Ph.D.

Laboratory of Comparative Ethology National Institute
of Child Health and Human Development
Poolesville, USA

**Scientific Career**

1971	Ph.D. in Psychology, University of Wisconsin
1970-1984	Assistant to Full Professor, University of Wisconsin
1983-present	Chief, Laboratory of Comparative Ethology, National Institute of Child Health and Human Development, National Institutes of Health
1986-present	Research Professor, Department of Psychology, University of Virginia,
1987-present	Adjunct Professor, Human Development, Pennsylvania State University
1987-present	Research Professor, Psychology, University of Maryland
1987-present	Research Professor, Dept of Mental Hygiene, The Johns Hopkins University
2003-present	Affiliate Professor, Department. of Psychology, Georgetown University

Research Interests

Broad program of research with rhesus monkeys (*Macaca mulatta*) investigating biobehavioural development throughout the lifespan. Three general themes have characterized this work: first, the role of specific genetic and environmental factors (and their interactions) in shaping individual developmental trajectories; second, the issue of developmental continuity vs. change and the relative stability of individual differences throughout development; and third, the degree to which research findings from monkeys studied in captivity generalize not only to monkeys living in the wild but also to humans living in different cultures.

Selected Publications

Malkova L., Mishkin M., Suomi S. J., & Bachevalier J. (2010). Long-term effects of neonatal medial temporal ablations on socioemotional behavior in monkeys (*Macaca mulatta*). *Behavioral neuroscience*, 124(6), 742-60.

Spinelli S., Chefer S., Carson R. E., Jagoda E., Lang L., Heilig M., Barr C. S; Suomi S. J., Higley J. D., & Stein E. A. (2010). Effects of early-life stress on serotonin (1A) receptors in juvenile Rhesus monkeys measured by positron emission tomography. *Biological psychiatry*, 67(12), 1146-53.

Schwandt M. L., Lindell Stephen G., Sjöberg R. L., Chisholm K. L; Higley J. D., Suomi S. J., Heilig M., & Barr C. S. (2010). Gene-environment interactions and response to social intrusion in male and female rhesus macaques. *Biological psychiatry*, 67(4), 323-30.

Gene-Environment Interactions Influence the Development of Emotional Regulation in Rhesus Monkeys

Stephen J. Suomi

Recent research with rhesus monkeys has provided compelling evidence of gene-environment (G x E) interactions influencing emotional regulation throughout development. For example, a specific polymorphism of the serotonin transporter (5-HTT) gene is associated with deficits in infant neurobehavioral functioning, excessive behavioral and adrenocortical responsiveness to social stressor poor control of aggression, and low serotonin metabolism during juvenile and adolescent development and excessive alcohol consumption in early adulthood in monkeys reared with peers but not in monkey reared by their mother. One interpretation of these findings is that secure attachment relationships somehow confer resiliency to individuals who carry alleles that may otherwise increase their risk for adverse developmental outcomes (“maternal buffering”). Similar patterns of apparent “buffering” have been demonstrated for G x E interactions involving several other “candidate” genes with functionally equivalent polymorphisms in both humans and rhesus monkeys. Recent research has suggested that much of this “buffering” may be taking place in the context of early face-to-face interactions between rhesus monkey mothers and their infants.

Professor Jacquelynne S. Eccles, Ph.D.

Institute for Social Research
University of Michigan, Ann Arbor, USA



Scientific Career

1966	B.A. in Psychology, University of California, Berkeley
1974	Ph.D. in Psychology, UCLA
1973-1976	Assistant Professor, Smith College
1977-1988	Assistant to Associate Professor, University of Michigan
1987-1988	Assistant Vice President for Research, University of Michigan
1988-1992	Professor, University of Colorado
1992-present	Full Professor, University of Michigan

Research Interests

Expectancy-Value Theory of Achievement-Related Life Choices
Adolescent Development
Life Span Development
Personal and Collective Identities
Gender
Race/ethnicity
School influences on development
Social Contexts and Human Development, Interest and passion

Selected Publications

- Eccles, J. (2009). Who am I and what am I going to do with my life? Personal and collective identities as motivators of action. *Educational Psychologist*, 44 (2). 78-89.
- Wong, C. A., Eccles, J. S., & Sameroff, A. (2003). The influence of ethnic discrimination and ethnic identification on African-Americans adolescents' school and socio-emotional adjustment. *Journal of Personality*, 71(6), 1197-1232.
- Eccles, J. S., Barber, B. L., Stone, M., & Hunt, J. (2003). Extracurricular Activities and Adolescent Development. *Journal of Social Issues*, 59, 865-889.
- Eccles, J. S. (1994). Understanding women's educational and occupational choices: Applying the Eccles et al. model of achievement-related choices. *Psychology of Women Quarterly*, 18, 585-609.
- Eccles, J. S., Midgley, C., Buchanan, C. M., Wigfield, A., Reuman, D., & Mac Iver, D. (1993). Developmental during adolescence: The impact of stage/environment fit. *American Psychologist*, 48, 90-101.

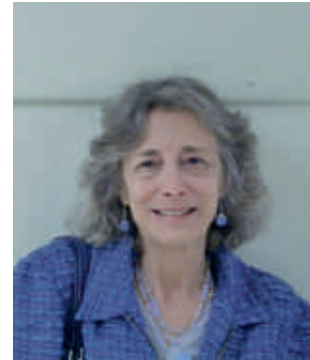
The Expectancy-Value Model of Behavioral Choice

Jacquelynne S. Eccles

I am going to talk about the Eccles et al. Expectancy-Value Model of Behavioral Choice. This model was developed to explain individual and group differences in the decision to enter and then persist in various achievement-related tasks and activities, such as high school courses, college majors, other educational choices, avocational choices, and other behavioral choices likely to influence life trajectories. It also links these choices to personal and social identities and to experiences in the home, at school and in the community/nation/culture in which individuals live and mature. Thus, it focuses on the developmental origins and longer term consequences of individual and group differences in the selection of activities linked to both long and short term goals. I plan to relate this theoretical perspective to the Oettingen and Gollwitzer's work on self regulation of goal pursuit. My focus is on the origins of the actual goals themselves as well as the motivational beliefs that influence persistence in achieving one's educational and avocational goals. My focus is also on the hierarchy of goals and how this hierarchy is activated and modified by the changing demands inherent in the various social contexts that adolescents and young adults experience as they move from setting to setting each day.

Professor Nancy Eisenberg, Ph.D.

Department of Psychology
Arizona State University, Tempe, USA



Scientific Career

1972	B.A., University of Michigan, Ann Arbor
1974	M.A., University of California, Berkeley
1976	Ph.D., University of California, Berkeley
1976-present	Assistant, Associate, Full, and Regents' Professor, Arizona State University, Tempe

Research Interests

Socioemotional development, including the development of emotions, regulation, empathy-related responding, prosocial behavior, morality, and social behavior, as well as parenting and other environmental influences (as well as genetics) on these aspects of development

Selected Publications

- Eisenberg, N., Fabes, R. A., & Spinrad, T. L. (2006). Prosocial behavior. In N. Eisenberg (Vol. Ed) and W. Damon & R. M. Lerner (Series Eds.), *Handbook of child psychology: Vol. 3. Social, emotional, and personality development*, 6th ed.; 646-718. New York: Wiley.
- Eisenberg, N., Cumberland, A., Spinrad, T. L., Fabes, R. A., Shepard, S. A., Reiser, M., Murphy, B. C., Losoya, S. H., & Guthrie, I. K. (2001). The relations of regulation and emotionality to children's externalizing and internalizing problem behavior. *Child Development*, 72, 1112-1134.
- Eisenberg, N. (2000). Emotion, regulation, and moral development. In S. T. Fiske, D. L. Schacter, & C. Zahn-Waxler (Eds.), *Annual review of psychology*, Vol. 51; 665-697. Palo Alto, CA: Annual Reviews.
- Eisenberg, N., Cumberland, A., & Spinrad, T. L. (1998). Parental socialization of emotion. *Psychological Inquiry*, 9, 241-273.
- Eisenberg, N., & Miller, P. (1987). The relation of empathy to prosocial and related behaviors. *Psychological Bulletin*, 101, 91-119.

Self-regulation: Conceptualization, Relations to Adjustment, and Implications for Adolescent Development

Nancy Eisenberg

Recently there has been an increasing appreciation of the role of emotion and its regulation in children's socioemotional functioning in both typical and atypical samples. A variety of constructs have historically been considered when discussing emotion regulation. We define emotion-related self-regulation as processes used to manage and change if, when, and how (e.g., how intensely) one experiences emotions and emotion-related motivational and physiological states, as well as how emotions are expressed behaviorally. I will discuss conceptualizations of emotion-related regulation, and differentiate between effortful control (dispositionally based regulatory processes such as effortful control of attention and activation or inhibition of behavior) and aspects of control that are less voluntary (reactive control).

After briefly discussing how effortful self-regulation typically is operationalized and age trends in its development, I will briefly present findings on the relation of effortful control and reactive control to children's maladjustment and social competence, with an emphasis on temperamentally based effortful control, and the mediating role of personality resiliency. Effortful regulatory processes have been positively related to positive developmental outcomes and negatively related to maladjustment; personality resiliency mediates some relations; and self-regulatory is often more highly related to developmental outcomes for children prone to negative emotions.

Effortful regulatory processes studied by developmental scientists would seem to be very relevant for people studying setting and the implementation of goals. I discuss the processes that appear to overlap in the two conceptualizations of regulation and how an understanding of the development of emotion-related effortful self-regulation can inform thinking about goal setting and implementation. Moreover, because effortful control develops across childhood and adolescence, it may provide limitations and affordances for success in setting and implementing goals. Conversely, the study of goal setting and implementation can help developmental investigators further delineate ways in which effortful self-regulatory and coping processes play out in adolescence.

Professor Laurie Chassin, Ph.D.

Department of Psychology
Arizona State University, Tempe, USA



Scientific Career

1971	B.A. in Psychology, Brown University
1977	Ph.D. in Clinical Psychology, Columbia University Teachers College
1977-1979	Post-doctoral Training, Sociology, and Visiting Assistant Professor of Psychology Indiana University
1982-1984	Assistant Professor of Psychology, University of Missouri, Columbia
1979-1982; 1984-present	Assistant Professor to Regents Professor of Psychology, Arizona State University

Research Interests

The developmental course, etiology, and intergenerational transmission of substance use and substance use disorders

Selected Publications

- Chassin, L., Presson, C., Sherman, S., Seo, D-C., & Macy, JT. (2010). Implicit and explicit attitudes predict smoking cessation: Moderating effects of experienced failure to control smoking and plans to quit. *Psychology of Addictive Behaviors*, 24, 670-679
- Chassin, L., Presson, C., Sherman, S., Seo, D-C., Macy, J., Wirth, R. J., & Curran, P. J. (2008). Multiple trajectories of smoking and the intergenerational transmission of smoking: A multigenerational, longitudinal study of a Midwestern community sample. *Health Psychology*, 27, 819-828.
- Chassin, L., Flora, D., & King, K. (2004). Trajectories of Alcohol and Drug Use and Dependence from adolescence to adulthood: The effects of familial alcoholism and personality. *Journal of Abnormal Psychology*, 113, 577-595.
- Chassin, L., Pitts, S., & Prost, J. (2002) Trajectories of heavy drinking from adolescence to young adulthood: Adolescent Predictors and Young Adult Substance Abuse Outcomes. *Journal of Consulting and Clinical Psychology*, 70, 67-78
- Chassin, L. Pillow, D., Curran, P., Molina, B., & Barrera, M., (1993). The relation between parent alcoholism and adolescent substance use: A test of three mediating mechanisms. *Journal of Abnormal Psychology*, 102, 1-17.

Adolescent substance use: The role of goal pursuit and self-regulation

Laurie Chassin

Substance use typically starts in adolescence, with peak rates of substance use and substance use disorders reached in emerging adulthood and a “maturing out” beginning in the mid-20s. Although adolescent substance use is relatively common, there are considerable negative consequences of adolescent substance use (including traffic accidents, legal problems and sexual risk taking). For that reason, significant research effort has been directed at understanding the etiology of adolescent substance use and applying this knowledge to both the prevention of adolescent substance use and treatment of adolescent substance use disorders. Within this research agenda, self-regulation and goal pursuit have been important constructs.

This presentation will discuss the role of adolescents’ substance-use related goals, including data illustrating the fact that adolescents’ worries about their substance use can have complex (quadratic) effects on the future probability of developing a substance use disorder. I will also discuss the role of dispositional “behavioral undercontrol” and describe recent attempts to distinguish among multiple characteristics and processes that define “undercontrol.” The presentation will include data to show that these multiple characteristics differentially predict facets of the “externalizing spectrum,” including substance use. I will describe dual process models of substance, which propose interactions among automatic and controlled processes, with an empirical illustration using smoking cessation data. Finally, intervention implications of these findings will be described.

Lucy Bowes, Ph.D.

Institute of Psychiatry
The MRC Social, Genetic and Developmental
Psychiatry Research Centre
King's College London, UK



Scientific Career

2001-2004	B.A. Hons in Experimental Psychology, University of Oxford
2006-2007	M.Sc. in Social, Genetic and Developmental Psychiatry, Institute of Psychiatry
2007-2010	Ph.D. in Social, Genetic and Developmental Psychiatry, Institute of Psychiatry
2010-2011	Postdoctoral researcher at INSERM, Paris and the MRC Social, Genetic and Developmental Psychiatry Research Centre, Institute of Psychiatry, London

Research Interests

Risk and resilience across development
Peer relations, particularly bullying victimization and its impact on children's emotional and behavioural functioning
Family and school influences on children's behaviour
The interplay between genes and environments

Selected Publications

- Arseneault, L., Bowes, L., & Shakoor, S. (2010). Bullying victimization in youths and mental health problems: 'much ado about nothing'? *Psychological Medicine*, 40, 717-729.
- Bowes, L., Maughan, B., Caspi, A., Moffitt, T. E., & Arseneault, L. (2010). Families promote emotional and behavioural resilience to bullying: evidence of an environmental effect. *Journal of Child Psychology and Psychiatry*, 51, 809-817.
- Cluver, L., Bowes, L., & Gardner, F. (2010). Risk and protective factors for bullying victimisation amongst AIDS-affected and vulnerable children in South Africa. *Child Abuse and Neglect*, 34, 793-803.
- Bowes, L., Arseneault, L., Maughan, B., Taylor, A., Caspi, A., & Moffitt, T. E. (2009). School, neighborhood and family factors are associated with children's bullying involvement: A nationally-representative longitudinal study. *Journal of the American Academy of Child and Adolescent Psychiatry*, 48, 545-553.
- Munafo, M. R., Bowes, L., Clark, T. G., & Flint, J. (2005). Lack of association of the COMT (Val158/108 Met) gene and schizophrenia: a meta-analysis of case-control studies. *Molecular Psychiatry*, 10, 765-770.

Families promote resilience among young victims of bullying: Evidence of an environmental effect

Lucy Bowes

Background: Bullied children are at risk for later emotional and behavioral problems. “Resilient” children function better than would be expected given their experience of bullying victimisation. This study examined the role of families in promoting resilience following bullying victimisation in primary school.

Method: Children’s emotional and behavioral resilience was assessed by the difference between their actual scores and the scores predicted by their level of bullying victimisation in the Environmental Risk (E-Risk) longitudinal Twin Study, a nationally-representative sample of 1,116 twin pairs and their families. Bullying victimisation during primary school was measured using reports from mothers and children. Children’s emotional and behavioral adjustment at ages 10 and 12 was assessed using mother and teacher reports. Measures of protective factors in the home including maternal warmth, sibling warmth and positive atmosphere at home were derived from mother and interviewer reports.

Results: Results from linear regression models showed that family factors were associated with children’s resilience to bullying victimisation. Maternal warmth, sibling warmth and a positive atmosphere at home were more strongly associated with emotional and behavioral adjustment in bullied children compared to non-bullied children. A twin differences design was used to separate out environmental protective factors in twins who are genetically identical. Differences in maternal warmth between monozygotic twin pairs concordant for bullying victimisation were correlated with twin differences in behavioral problems ($r=-.23$) such that the twin who received the most warmth had fewer behavioral problems. This shows that maternal warmth has an environmental effect in protecting children from the negative outcomes associated with being bullied.

Conclusions: Warm family relationships and positive home environments help to buffer children from the negative outcomes associated with bullying victimisation. Warm parent-child relationships exert an environmentally-mediated effect on children’s behavioral adjustment following bullying victimisation. Identifying protective factors that promote resilience to bullying victimisation could lead to improved intervention strategies targeting the home environment.

Laura Di Giunta, Ph.D.

Interuniversity Center for Research on Genesis
and Development of Prosocial and
Antisocial Motivations
Sapienza University of Rome, Italy



Scientific Career

2002	B.A. in Developmental Psychology, Sapienza University of Rome
2004	M.S. in Developmental Psychology, Sapienza University of Rome
2007	Ph.D. in Developmental Psychology, Sapienza University of Rome
2007-2009	Post-Doctoral Fellowship Sapienza University of Rome
2008-present	Research Assistant/Research Associate, Sapienza University of Rome
2009-present	Expert consultant, Universidad de Sanbuenaventura, Medellin, Colombia
2010-present	Member of Rome Research Unit, Psychology Department, Sapienza University of Rome

Research Interests

Continuity and change of individual differences in normal psychological traits and relations with (mal)adjustment, accounting for socialization and culture factors in emotion regulation/dysregulation, adjustment, social competence, and prosocial responding. Focus on integrating methods and concepts from developmental psychology with those in statistical methods in order to better understand how and why personality differences shape self-regulation, emotion-related regulation and behaviors that lead to (mal)adjustment.

Selected Publications

- Di Giunta, L., Eisenberg, N., Kupfer, A., Steca, P., Tramontano, C., & Caprara, G.V. (2010). Assessing Perceived Empathic and Social Self-Efficacy across Countries. *European Journal of Psychological Assessment*. 26(2), 77–86.
- Caprara, G.V., Gerbino, M., Paciello, M., Di Giunta, & L., Pastorelli, C. (2010). Affective and Interpersonal Self-Efficacy Beliefs as Protective Factors for Depression and Delinquency in Late Adolescence. *European Psychologist*, 15 (1), 34-48.
- Di Giunta, L., Pastorelli, C., Eisenberg, N., Gerbino, M., Castellani, & V. Bombi, A.S. (2010). Developmental Trajectories of Physical Aggression: Prediction of Overt and Covert Antisocial Behaviors from Self and Mothers' Reports. *European Journal of Child and Adolescent Psychiatry*, 19:873–882.
- Eisenberg, N., Eggum, N.D., & Di Giunta, L. (2010). Empathy-Related Responding: Associations With Prosocial Behavior, Aggression, and Intergroup Relations. *Social Issues and Policy Review*. 4, 1, 143-180.
- Caprara, G.V., Di Giunta, L., Eisenberg, N., Gerbino, M., Pastorelli, C., & Tramontano, C. (2008). Assessing Regulatory Emotional Self Efficacy: A Cross Cultural Study. *Psychological Assessment*. 20, 3, 227-237.

The Role of Self-Efficacy in the Relation between Effortful Control and Internalizing Problem Behaviors During Adolescence in Italy

Laura Di Giunta

In the present study, the relation between effortful control (EC; i.e., those self-regulatory processes with a dispositional basis that readily can be brought under voluntary control) and internalizing problems will be explored from preadolescence to late adolescence, examining self-efficacy beliefs (SEF) as potential mediators of the relation.

Participants were 589 children (51% boys) from a longitudinal study on social adjustment conducted in a community near Rome. The project followed a staggered, multiple-cohort design, with 3 cohorts assessed initially at age 12 in 1994, 1995, and 1996. The follow-up took place in 2 different years (2000 and 2002) and included most of the original sample at the age of 18 (cohorts that started in 1994 and 1996) and 17 (cohort that started in 1995).

Attention problems and *lack of inhibitory control* were considered measures of low EC. Two aspects of self-efficacy were assessed. *Social* SEF measured children's beliefs in their capabilities to form and maintain social relationships, to manage different types of interpersonal conflicts, to voice their opinion, to stand up mistreatment or harassment, and to refuse unreasonable requests. *Regulatory* SEF assessed adolescents' beliefs in their efficacy to resist peer pressure to engage in high-risk activities involving the use of alcohol and drugs, sexual activity, theft of property, and various other types of transgressive activities that can get them into serious trouble.

We computed a new variable called *internalizing problems at age 17-18* by collapsing into a single variable the data from the corresponding variables at ages 17 or 18. Then we created a control variable, called *age 17-18*, to take into account the age at which the outcome was assessed.

We computed a multi-group path analysis (sex was the group variable) to examine the model in which EC predicted SEF, which in turn predicted concurrent and long-term internalizing problems.

For both boys and girls, (1) both the two EC components and the two SEF components were significantly, positively related within construct; (2) lack on inhibitory control positively, significantly predicted social SEF; (3) inattentive problems were negatively related to both social and regulatory SEF; (4) the two EC components were significantly related to concurrent internalizing problems, but in the opposite directions: internalizing problems were related to better inhibitory control (i.e., teacher-rated items such as interrupting others or sitting still in class are low for internalizers) and positively associated to inattentive problems; and (5) social SEF was negatively related to long-term internalizing problems. For girls only, social SEF was also negatively related to concurrent internalizing problems whereas, surprisingly, regulatory SEF was positively related to internalizing problems.

These results suggest that SEF theory can help disentangle the underlying processes between EC and internalizing problems during adolescence.

Kevin M. King, Ph.D.

Department of Psychology
University of Washington, Seattle, USA



Scientific Career

1999	B.A. in Psychology with Highest Honors and Biology, University of North Carolina, Chapel Hill
2002	M.A. in Clinical Psychology, Arizona State University
2006-2007	APA approved clinical internship, Western Psychiatric Institute and Clinic, University of Pittsburgh Medical Center
2007	Ph.D. in Clinical Psychology, Arizona State University
2007-present	Assistant Professor, Child Clinical and Quantitative Psychology, University of Washington

Research Interests

Pathways to Alcohol and Drug Use and Dependence, Impulsivity and Self Regulation, Stress and Coping, Developmental Psychopathology, Longitudinal Methods

Selected Publications

- King, K.M., Fleming, C.P., Monahan, K. & Catalano, R. (in press). Increases in self control and attention problems during middle school predict alcohol and marijuana use during high school. *Psychology of Addictive Behaviors*.
- King, K.M., Molina, B.S.G., & Chassin, L. (2009). Prospective relations between growth in drinking and stressful life events across adolescence. *Journal of Abnormal Psychology*, 118, 610-622.
- King, K.M., Chung, T. & Maisto, S.R. (2009). Adolescents' thoughts about abstinence curb the return of marijuana use during and after treatment. *Journal of Consulting and Clinical Psychology*, 77, 564-565.
- King, K.M., Molina, B.S.G., & Chassin, L. (2008). A state-trait model of stressful life events in adolescence: Predictors of stability in the occurrence of stressors. *Journal of Clinical Child and Adolescent Psychology*, 37, 848-859.
- King, K.M., & Chassin, L. (2004). The Mediating and Moderated Effects of Adolescent Behavioral Undercontrol and Parenting in the Prediction of Drug Use Disorders in Emerging Adulthood. *Psychology of Addictive Behaviors*, 18, 3, 239-249.

Connecting Context to Individual Differences in the Development of Self-Regulation

Kevin M. King

An emerging conceptualization of adolescence suggests that neurodevelopmental changes that occur in both the pre-frontal cortex and the limbic system underlie the dramatic behavioral changes in the control and regulation of behavior, and explain the systematic peaks in risk-taking that are observed during mid to late-adolescence. Some prior research (e.g. Monahan et al., 2009; King et al., *under review*; King et al., *under review*) has demonstrated that individual differences in the rate of development of self-regulation during early and middle adolescence explain additional variance in the prediction of risk behaviors, over and above levels. Yet little attention has been given to the *predictors* of those individual differences in change. It could be that environmental factors can either broadly influence trajectories by enhancing or diminishing growth in self-regulation over time, and/or that environmental factors influence time-specific variation in self-regulation.

We used data from the Developmental Pathways Project community based sample of $n = 521$ adolescents, oversampled for conduct and depressive problems (20% with depressive problems, 15% with conduct problems, 24% with comorbid problems, and 40% with neither problem) and followed from 8th to 12th grade with 81% retention. Sample weights were used to improve generalizability. We first developed latent growth curve models of dysregulation in both affective and behavioral domains across three years (grades 8, 9 and 12), and then tested how environmental factors (stressful life events, parental and peer support) were related to trajectories and time-specific variation in dysregulation. None of the environmental factors were related to trajectories of dysregulation. However, exposure to stressful life events was related to time-specific elevations in affective ($B = .15$, $p < .01$) dysregulation (but not behavioral) at Grades 8 and 9 (but not 12) over and above individuals' trajectories of change. Moreover, perceived peer support increased ($B = .12$, $p < .05$), while perceived familial support decreased ($B = -.16$, $p < .01$) behavioral, but not affective, dysregulation at grades 8 and 9 (but not 12) at specific time points.

These results indicated that both behavioral and affective regulation are sensitive, at least in the short term, to environmental contexts. Some contextual factors seem to promote poorer regulation, such as closeness to peers or exposure to stressors, while others, such as closeness to family, seem to promote good regulation. At the same time, the effects of context were specific, suggesting that it is worthwhile to utilize multidimensional models of regulation.

Professor Philip David Zelazo, Ph.D.

Institute of Child Development
University of Minnesota, Minneapolis, USA

**Scientific Career**

1988	B.A., McGill University, Canada
1993	Ph.D., Yale University, USA
1993-2007	Assistant to Full Professor, Dept. of Psychology, University of Toronto
2001-2007	Canada Research Chair in Developmental Neuroscience
2004-present	Co-Director (and Co-Founder), Sino-Canadian Centre for Research in Child Development, Southwest University, Chongqing, China
2007-present	Professor of Child Psychology & Nancy M. and John E. Lindahl Professor for Excellence in Teaching and Learning,, Institute of Child Development, University of Minnesota

Research Interests

Developmental cognitive neuroscience; executive function; consciousness; rule use; self and social understanding; EEG/ERP; neuroimaging; affective decision making; problem solving; cultural differences in cognitive development; thought and language

Selected Publications

- Kesek, A., Cunningham, W. A., Packer, D. J., & Zelazo, P. D. (in press). Indirect goal priming is more powerful than explicit instruction in children. *Developmental Science*.
- Prencipe, A., Kesek, A., Cohen, J., Lamm, C., & Zelazo, P. D. (in press). Development of executive function in adolescence. *Journal of Experimental Child Psychology*. 10.1016/j.jecp.2010.09.008
- Zelazo, P. D., Paus, T. (2010). Developmental social neuroscience: An introduction. *Social Neuroscience*, 5, 417-421.
- Lahat, A., Todd, R. M., Mahy, C. E. V., & Zelazo, P. D. (2010). Neurophysiological correlates of executive function: a comparison of European-Canadian and Chinese-Canadian 5-year-old children. *Frontiers in Human Neuroscience*, 3:72, 1-10. Doi: 10.3389/neuro.09.072.2009
- Dixon, M. L., Zelazo, P. D., & De Rosa, E. (2010). Evidence for intact memory-guided attention in school-aged children. *Developmental Science*, 13, 161-169.
- Marcovitch, S., Jacques, S., Boseovski, J. J., & Zelazo, P. D. (2008). Self-reflection and the cognitive control of behavior: Implications for learning. *Mind, Brain, and Education*, 2, 136-141.

Neurocognitive mechanisms underlying executive function and its development

Philip David Zelazo

Executive function (EF) refers to the more deliberate, top-down neurocognitive processes involved in self-regulation—processes such as cognitive flexibility, working memory, and inhibitory control. These processes depend on the integrity of prefrontal cortex, are related to but distinct from IQ, and develop most rapidly during the preschool years, together with the rapid growth of neural networks involving prefrontal cortex, although they continue to develop more slowly into adolescence and beyond. Our theoretical approach to EF (e.g., Bunge & Zelazo, 2006; Zelazo, 2004; Zelazo & Cunningham, 2007), referred to as the Iterative Reprocessing (IR) model, provides a comprehensive characterization of EF at multiple levels of analysis. According to the IR model, development of EF results, in part, from increases in the hierarchical complexity of the rules that children can formulate, maintain in working memory, and use when solving problems. These increases in rule complexity are, in turn, made possible by increases in the ease with which children can reflect on rules and consider them in relation to a larger context. Increases in reflection correspond to the iterative reprocessing of information via neural circuits that coordinate hierarchically arranged regions of prefrontal cortex (e.g., Badre & D'Esposito, 2007)—a hierarchical coordination that parallels the hierarchical structure of children's rule systems and develops in a bottom-up fashion, with higher levels in the hierarchy operating on the products of lower levels. Key aspects of this approach have been modeled formally, yielding predictions that have since received empirical support (e.g., Marcovitch & Zelazo, 2009). Research on the IR model complements research on the self-regulation of goal pursuit (e.g., Oettingen & Gollwitzer, 2010) by characterizing the neurocognitive mechanisms that underlie the deliberate identification, selection, and activation (or deactivation) of goals, and exploring the ways in which these mechanisms develop during childhood (and beyond). Targeted interventions to promote iterative reprocessing during the preschool years (which may be a window of relative plasticity) have shown promise, producing changes in both behavior and brain function, and variants of these interventions may also be effective during the transition to adolescence, another period of relatively rapid behavioral and neural reorganization.

Professor Sarah-Jayne Blakemore, Ph.D.

Institute of Cognitive Neuroscience
University College London, UK



Scientific Career

1993-1996	B.A. (Hons) in Experimental Psychology (Congratulatory First) St John's College, Oxford University
1996-2000	Wellcome Trust Four Year Ph.D. programme in Neuroscience at UCL Wellcome Centre for Neuroimaging, 12 Queen Square, London Supervisors: Chris Frith and Daniel Wolpert
2001-2002	Wellcome Trust International Research Fellowship, Inserm, Lyon
2002-2003	Wellcome Trust Research Fellowship, ICN, UCL
2004-2007	Royal Society Dorothy Hodgkin Research Fellowship, ICN, UCL
2007-2013	Royal Society University Research Fellow, Professor in Cognitive Neuroscience at UCL

Research Interests

Social cognitive development during adolescence. Social cognitive processes (action understanding, mentalising, emotion processing) in the normal brain and in people with autism.

Selected Publications

- Dumontheil, I., Houlton, R., Christoff, K., & Blakemore, S-J. (2010). Development of relational reasoning during adolescence. *Developmental Science*, 13(6), 15-24.
- Dumontheil, I., Hassan, B., Gilbert, S., & Blakemore, S-J. (2010). Development of the selection and manipulation of self-generated thoughts in adolescence. *Journal of Neuroscience* 30, 7664-7671.
- Blakemore, S-J. (2010). The developing social brain: implications for education. *Neuron* 65, 744-747.
- Sebastian C., Burnett S., & Blakemore S-J. (2008). Development of the self concept during adolescence. *Trends in Cognitive Science* 12(11), 441-446.
- Blakemore S-J. (2008). The social brain in adolescence. *Nature Reviews Neuroscience* 9(4), 267-277.

The social brain in adolescence

Sarah-Jayne Blakemore

The brain has evolved to understand and interact with other people. We are increasingly learning more about the neurophysiological basis of social cognition and what is known as the social brain that is the network of brain regions involved in understanding others. The social brain includes three key regions: medial prefrontal cortex, posterior superior temporal cortex and anterior temporal cortex. This paper focuses on how the social brain develops during adolescence. Adolescence is a time characterised by change - hormonally, physically, psychologically and socially. Yet until recently this period of life was neglected by cognitive neuroscience. In the past decade, research has shown that the brain develops both structurally and functionally during adolescence. Large scale structural MRI studies have demonstrated development during adolescence in white matter and grey matter volumes in regions within the social brain. Activity in some of these regions, as measured using fMRI, also shows changes between adolescence and adulthood during social cognition tasks. In particular, there is growing consensus that activity in the medial prefrontal cortex during a range of social cognition tasks decreases between adolescence and adulthood. Recent evidence from behavioural studies suggests that theory of mind usage is still developing late in adolescence. Finally, I will speculate on potential implications of this research for society, in particular for education.

Self-regulation is particularly important for educational success. There are now a number of cognitive neuroscience studies investigating the development of a variety of cognitive control skills in adolescence, and these will have relevance to self-regulation development. However, to my knowledge, no previous cognitive neuroscience studies have specifically investigated the functional development of the brain regions involved self-regulation in adolescence. This will be an important area for future research.

Professor Laurence Steinberg, Ph.D.

Department of Psychology
Temple University, Philadelphia, USA



Scientific Career

1974	A.B. in Psychology, Vassar College
1977	Ph.D. in Developmental Psychology, Cornell University
1977-1983	Assistant to Associate Professor, Program in Social Ecology, University of California, Irvine
1983-1988	Professor of Child and Family Studies, University of Wisconsin-Madison
1988-present	Professor of Psychology, Temple University

Research Interests

Brain and behavioral development in adolescence; adolescent decision-making and risk-taking; implications of developmental science for law and social policy; juvenile justice

Selected Publications

- Steinberg, L. (2009). Adolescent development and juvenile justice. *Annual Review of Clinical Psychology*, 5, 47-73.
- Steinberg, L. (2008). A social neuroscience perspective on adolescent risk-taking. *Developmental Review*, 28, 78-106.
- Steinberg, L., Dahl, R., Keating, D., Kupfer, D., Masten, A., & Pine, D. (2006). Psychopathology in adolescence: Integrating affective neuroscience with the study of context. In D. Cicchetti and D. Cohen (Eds.). *Developmental psychopathology, Vol. 2: Developmental neuroscience*. Pp. 710-741. New York: Wiley.
- Steinberg, L. (2005). Cognitive and affective development in adolescence. *Trends in Cognitive Sciences*, 9, 69-74.
- Steinberg, L., & Scott, E. (2003). Less guilty by reason of adolescence: Developmental immaturity, diminished responsibility, and the juvenile death penalty. *American Psychologist*, 58, 1009-1018.

The Underpinnings of Adolescent Risk-Taking: The Roles of Reward-Seeking and Self-Regulation

Laurence Steinberg

The major threats to the health and well-being of adolescents in industrialized countries are behavioral and often self-inflicted, including experimentation with alcohol, tobacco, and illicit drugs; unsafe sexual activity; violence; and reckless driving. This paper presents results from a program of behavioral and brain imaging research on the underpinnings of adolescent risk-taking. In the neurodevelopmental framework that guides this work, heightened risk taking in adolescence is hypothesized to be the product of combined developmental changes in a brain network that processes social and emotional information in relation to its reward value (the “reward system”) and a brain network associated with self regulation (the “cognitive-control system”). Shortly after puberty the reward processing system undergoes rapid development, producing a heightened sensitivity to (and motivation for) reward that declines throughout late adolescence into adulthood. In contrast, structures of the cognitive-control network that work to inhibit impulses and direct reward motivation towards socially appropriate stimuli show linear gains well into the third decade of life. When the reward system is not highly activated (for example, when individuals are not aroused emotionally and/or are alone), the cognitive control network is adequate, even in its immature adolescent state, to impose regulatory control over impulsive and risky behavior. However, factors that interfere with the limited regulatory capacity of immature cognitive control circuitry, or that educe increased activation of reward circuitry, such as being in the presence of one’s peers, will lead to increased risk taking. In order to test these propositions, age differences in reward-seeking and self-regulation were examined in a socioeconomically and ethnically diverse sample of 935 individuals between the ages of 10 and 30, using self-report and behavioral measures of each construct. Consistent with predictions, reward-seeking follows a curvilinear pattern with age, increasing between preadolescence and mid-adolescence, and declining thereafter. In contrast, self-regulation follows a linear pattern, with self-control increasing steadily and gradually from age 10 on. Heightened vulnerability to risk-taking in middle adolescence may be due to the combination of relatively higher inclinations to seek rewards and still maturing capacities for self-control. I also provide evidence from a recent fMRI experiment that the presence of peers increases adolescents’ reward sensitivity, further inclining them toward risky decision-making. More specifically, when in the presence of their peers, adolescents, but not adults, engage in increased risk-taking and show a pattern of brain activation characterized by increased arousal of key nodes of the brain’s reward system (ventral striatum and orbitofrontal cortex). Public health implications are discussed.

Professor Kenneth A. Dodge, Ph.D.

Center for Child and Family Policy
Duke University, Durham, USA

**Scientific Career**

1975	B.A., Northwestern University
1978	Ph.D., Duke University (Psychology)
1979	Duke University Medical Center (Clinical Internship)
1979-1985	Assistant to Associate Professor of Psychology, Indiana University
1983-1985	Associate Professor of Psychology, Indiana University
1985-1986	Associate Professor of Psychology, University of Colorado
1986-1998	Associate to Professor to Distinguished Service Professor of Psychology and Psychiatry, Vanderbilt University
1998-present	William McDougall Professor of Public Policy and Professor of Psychology and Neuroscience, Duke University

Research Interests

Developmental psychopathology
Prevention
Policy of violent behavior

Selected Publications

- Conduct Problems Prevention Research Group. (2011). The effects of the Fast Track preventive intervention on the development of conduct disorder across childhood. *Child Development*, 82, 331-345.
- Dodge, K. A., Malone, P. S., Lansford, J. E., Miller, S., Pettit, G. S., & Bates, J. E. (2009). A dynamic cascade model of the development of substance-use onset. *Monographs of the Society for Research in Child Development*, Serial. No. 294.
- Crick, N.R., & Dodge, K.A. (1994). A review and reformulation of social information-processing mechanisms in children's social adjustment. *Psychological Bulletin*, 115, 74-101.
- Dodge, K.A., Bates, J.E., & Pettit, G.S. (1990). Mechanisms in the cycle of violence. *Science*, 250, 1678-1683.
- Dodge, K.A., Pettit, G.S., McClaskey, C.L., & Brown, M. (1986). Social competence in children. *Monographs of the Society for Research in Child Development* (Serial No. 213, Vol. 51, No.2).

Executive Function, Social Information Processing, and Criminal Behavior in Adolescence

Kenneth A. Dodge, Anne-Marie R. Iselin

Executive function, including impulse control, self-regulation, and planning, develops across adolescent years. Individual differences in these processes have been related to problems in externalizing behavior in adolescence, including substance abuse, aggression, and criminal violence. The mechanism through which executive function exerts influence on social behavior is not well known, however. It is hypothesized here that executive function influences the manner in which information is processed in social situations, which, in turn, influences social behavior. Specifically, it is posited that attention to rewards and losses and resistance to distraction affect an adolescent's maintenance of focus on social goals and relations in the face of provocation and negative experiences. Social information processing factors include attention to relevant cues, hostile attributional biases, self-defensive goal-setting, aggressive response generation, and positive evaluation of aggressive behaviors. This hypothesis was tested in a prospective study of 585 boys and girls followed from early childhood through young adulthood, called the Child Development Project. Executive function processes were assessed through several standard tasks administered at age 16, including card-playing task, a go-no-go tasks, and a Stroop task. Social information processing patterns were assessed through responses to hypothetical social vignettes depicting provocations presented via videorecords at several ages across adolescence. Criminal violence was assessed through official arrest record review and self-reports through age 20. Data analyses indicated significant correlations between executive function and criminal violence; between social information processing and criminal violence; and between executive function and social information processing. Ongoing analyses will test the hypothesized mediation path. Findings will be integrated into a social-cognitive model of self-regulation in adolescence.

Professor David P. Farrington, Ph.D.

Institute of Criminology
University of Cambridge, UK



Scientific Career

1966	B.A. in Psychology, University of Cambridge
1970	M.A., Ph.D. in Psychology, University of Cambridge
1969-present	On staff of Cambridge University, Institute of Criminology; currently Professor of Psychological Criminology
1998-present	Adjunct Professor of Psychiatry, University of Pittsburgh
2004	Hon.Sc.D. degree, Trinity College, University of Dublin
1998-99	President of American Society of Criminology
1997-99	President of European Association of Psychology and Law
1990-93	President of British Society of Criminology

Research Interests

Development of offending and antisocial behaviour from childhood to adulthood
Early prevention of offending and antisocial behaviour

Selected Publications

- Farrington, D. P. (2010). Life-course and developmental theories in criminology. In E. McLaughlin & T. Newburn (Eds.), *The Sage handbook of criminological theory* (pp. 249-270). London: Sage.
- Farrington, D. P., Coid, J. W., & West, D. J. (2009). The development of offending from age 8 to age 50: Recent results from the Cambridge Study in Delinquent Development. *Monatsschrift für Kriminologie und Strafrechtsreform (Journal of Criminology and Penal Reform)*, 92, 160-173.
- Farrington, D. P. & Welsh, B. C. (2007). Saving children from a life of crime: Early risk factors and effective interventions. Oxford: Oxford University Press.
- Farrington, D. P., Loeber, R., Yin, Y., & Anderson, S. J. (2002). Are within-individual causes of delinquency the same as between-individual causes? *Criminal Behaviour and Mental Health*, 12, 53-68.
- Farrington, D. P. (2000). Explaining and preventing crime: The globalization of knowledge - The American Society of Criminology 1999 Presidential Address. *Criminology*, 38, 1-24.

Risk, protective and promotive factors in the development of offending

David P. Farrington

A risk factor predicts a high probability of offending, while a promotive factor predicts a low probability of offending. Depending on non-linear relationships between predictor variables and offending, a variable can be a risk factor but not a promotive factor, or a promotive factor and not a risk factor. A protective factor is either a variable that interacts with a risk factor to nullify or reduce its influence, or a variable that predicts a low probability of offending among a group of children at risk.

In the Pittsburgh Youth Study, over 1500 boys have been followed up from age 7 to 30. Predictor variables were trichotomized into 'good', middle, and 'bad' categories. Risk effects were studied by comparing the probability of violence in the 'bad' and middle categories, while promotive effects were studied by comparing the probability of violence in the middle and 'good' categories. Several variables had promotive but not risk effects, including the age of the mother, parental supervision, school achievement, housing, and neighbourhood quality. Peer delinquency and family size were clearly risk factors but not promotive factors. Other variables were linearly related to violence.

In the Cambridge Study in Delinquent Development, over 400 London males have been followed up from age 8 – 48. Using the above method, most predictor variables at age 8-10 had linear relationships with later violence and several were risk factors. Few variables had clearly promotive effects, including the age of the mother, neuroticism, the number of friends of a boy and the delinquency rate of the boy's school.

Protective factors were then investigated by studying which variables predicted a low probability of violence among boys who were rated as troublesome at age 8-10. The most important protective factors were high nonverbal and verbal intelligence, parental harmony, and small family size.

It is concluded that promotive and protective factors should be incorporated into criminological theories and targeted in intervention programmes. Research on self-regulation is applicable to cognitive models of decision-making in criminal opportunities and can inform and extend these models in criminological theories. The extent to which adolescents can use self-regulation methods such as mental contrasting and implementation intentions may influence whether they commit crimes. These cognitive processes should be measured and compared with traditional criminological variables such as intelligence/self-control/impulsiveness in explaining and predicting offending.

The efficacy of methods of preventing and treating delinquency based on self-regulation ideas (e.g. using the MCII technique) should be compared with the efficacy of existing child skills training programmes and with existing cognitive-behavioural programmes such as 'Reasoning and Rehabilitation) and 'Enhanced Thinking Skills'.

Professor Frans B. M. de Waal, Ph.D.

Living Links Center at the Yerkes National
Primate Research Center
Emory University, Atlanta, USA



Scientific Career

1977	Ph.D. in Biology, University of Utrecht, the Netherlands
1977-1981	Assistant, University of Utrecht, the Netherlands
1991-1991	Research Assistant, Professor, University of Wisconsin, Madison
1991-present	Professor, Emory University, Atlanta
1994	Royal Dutch Academy of Sciences (KNAW), Correspondent Member
2004	Member of the U. S. National Academy of Sciences (NAS)
2008	Fellow of the American Academy of Arts & Sciences (AAAS)

Research Interests

Primate social behavior and cognition, especially behavior related to social integration, such as cooperation, conflict resolution, expressions of empathy, imitation and culture, and sensitivity to (un)fairness. Interest in the evolution of morality. Most work has been done with primates in captivity, such as at large zoo settings and primate research centers, but also semi-field work on Asian elephants. The species we work with are various macaques, brown capuchin monkeys, chimpanzees, bonobos, elephants and human children.

Selected Publications

- Whiten, A., Horner, V., & de Waal, F. B. M. (2005). Conformity to cultural norms of tool use in chimpanzees. *Nature*, 437, 737-740.
- Brosnan, S. F., & de Waal, F. B. M. (2003). Monkeys reject unequal pay. *Nature*, 425, 297-299.
- Preston, S. D., & de Waal, F. B. M. (2002). Empathy: Its ultimate and proximate bases. *Behavioral & Brain Science*, 25, 1-72.
- de Waal, F. B. M. (1982). *Chimpanzee Politics: Power and Sex among Apes*, Jonathan Cape, London.
- de Waal, F. B. M., & van Roosmalen, A. (1979). Reconciliation and consolation among chimpanzees. *Behav. Ecol. Sociobiol.*, 5, 55-66.

Colliding and Overlapping Goals: Primate Conflict Resolution and Cooperation

Frans B. M. de Waal

Goal pursuit (e.g. for sex, food, dominance) inevitably leads to conflict (as many are seeking the same goals), which needs to be reduced in order to benefit from group life. Primates live in groups for a reason, hence need to compromise. They cannot just eliminate their rivals, or give them hardly any room to live, but need to get along with them. In the 1970s, primatologists began to emphasize long-term social relationships. The discovery of reconciliation behavior came out of this tradition, confirming the impression that societies constitute a balancing act between cooperation and competition. Reconciliation - defined as a friendly reunion between former opponents - has since been confirmed in many different species, in both captivity and the field. Chimpanzees, for instance, kiss and embrace after a fight. This behavior truly serves what its name suggests, i.e. to repair social relationships. The dominant idea (known as the Valuable Relationship Hypothesis) is that reconciliation will occur whenever parties stand much to lose if their relationship deteriorates. On the other hand, when several individuals pursue the same goal, and the goal is easier to achieve collectively than individually, there is a basis of exactly the opposite of conflict, which is cooperation. Cooperation, and its attendant concern about resource distribution (which needs to be commensurate to effort for all participants), will be discussed for primates as well as elephants.

Kristen E. Lyons, Ph.D.

Institute of Child Development
University of Minnesota, Minneapolis, USA



Scientific Career

2003	B.S. in Psychology, California Polytechnic State University, San Luis Obispo (Magna cum Laude)
2009	Ph.D. in Psychology, University of California, Davis
2009-2010	Postdoctoral Fellow, Center for Neurobehavioral Development, University of Minnesota
2010-2012	Postdoctoral Fellow, Institute of Child Development, University of Minnesota

Research Interests

I am interested in the development of self-awareness and the implications of age-related changes in this capacity for behavior (e.g., for cognitive and social functioning). I am particularly interested in these processes with regard to the development of self-regulation and memory, with an emphasis on early-childhood and adolescent development.

Selected Publications

- Lyons, K. E., & Ghetti, S. (in press). Awareness of uncertainty in early childhood. *Child Development*.
- Lyons, K. E., & Ghetti, S. (2010). Metacognitive development in early childhood: New questions about old assumptions. In A. Efklides and P. Misailidi (Eds.), *Trends and prospects in metacognition research* (pp. 259-278). New York: Springer.
- Ghetti, S., Castelli, P., & Lyons, K. E. (2010). Knowing about not remembering: Developmental dissociations in lack-of-memory monitoring. *Developmental Science*, 13, 611-621.
- Lyons, K.E., Ghetti, S., & Cornoldi, C. (2010). Age differences in the contribution of recollection and familiarity to false-memory formation: A new paradigm to examine developmental reversals.
- Ghetti, S., Lyons, K. E., Lazzarin, F., & Cornoldi, C. (2008). The development of metamemory monitoring during retrieval: The case of memory strength and memory absence. *Journal of Experimental Child Psychology*, 99, 157-181.

The Role of Self-Reflection in the Development of Self-Regulation in Adolescence

Kristen E. Lyons

One of the hallmarks of adolescence is an increase in independence. During this period, young people are, more than ever before, responsible for making decisions for themselves (Should I stay out late with my friends or should I study for my exam tomorrow? Should I ride on my friend's motorcycle or take the bus home?). The capacity to evaluate the likely outcomes of one's decisions (i.e., How sure am I that the response that I have in mind will achieve my goal?) is therefore a critical factor underlying the development of self-regulation in adolescence.

The current study examined the development of this ability between late childhood and early adolescence and examined the relations between individual differences in uncertainty monitoring and self-regulation during this period. Elementary school-aged children ($n = 16$, 8- to 10-year-olds) and early adolescents ($n = 16$, 12- to 14-year-olds) completed a decision-making task in which they were shown degraded line drawings of everyday objects (e.g., a couch), with approximately 50% of the pixels randomly removed. Participants' task was to judge whether the item in the drawing was typically used inside or outside of a house, and to rate their confidence in their decision (0 = *not sure*, 1 = *kind of sure*, 2 = *really sure*). Prior to test, participants were primed with half of the drawings in a higher-quality format (with approximately 75% of the pixels included, which should lead to more confident responding at test), and half of the drawings in a lower-quality format (with approximately 25% of the pixels included, which should lead to less confident responding at test).

Participants across age-groups reported higher confidence in higher-quality prime trials compared to lower-quality prime trials, indicating that judgments of subjective uncertainty correspond to differences in the actual amount of information available, $p < .001$. These findings suggest that older children and early adolescents have access to an important tool to guide their decision-making, namely the capacity to evaluate the likely accuracy of their decisions. Furthermore, controlling for age, uncertainty monitoring (as indicated by the difference in confidence between higher-quality prime and lower-quality prime trials) was negatively correlated with parent-reported impulsivity ($r = -.47$, $p < .05$) and there was a trend for a positive correlation between uncertainty monitoring and parent-reported inhibitory control ($r = .29$, $p = .16$), suggesting that uncertainty monitoring and self-regulation may be critically intertwined in early adolescence. These results suggest that practices promoting attention to one's own subjective feelings may promote improved decision-making in adolescents.

Iroise Dumontheil, Ph.D.

Institute of Cognitive Neuroscience
University College London, UK



Scientific Career

1998-2002	Undergraduate training in Biological Sciences, Lyon & Paris (Ecole Normale Supérieure de Cachan)
2002-2006	M.Sc. and Ph.D. in Cognitive Neuroscience, Université Paris VI
2006-2007	Postdoctoral Researcher, MRC-Cognition & Brain Sciences Unit, Cambridge
2007-2010	Postdoctoral Researcher, University College London
2010-2011	Postdoctoral Researcher, Karolinska Institutet, Stockholm
2011-present	Postdoctoral Researcher, University College London

Research Interests

Cognitive control development during late childhood and adolescence
Adult cognitive control
Social cognition development during late childhood and adolescence
Neuroimaging studies of typical development (structure and function)
Development of the prefrontal cortex
Genetic influences on cognition and brain function

Selected Publications

- Dumontheil, I., Thompson, R., & Duncan, J. (2011). Assembly and use of new task rules in the frontoparietal cortex. *Journal of Cognitive Neuroscience*, 23(1):168-182.
- Dumontheil, I., Houlton, R., Christoff, K., & Blakemore, S.J. (2010) Development of relational reasoning during adolescence. *Developmental Science*. 13(6):F15-24.
- Dumontheil, I., Hassan, B., Gilbert, S.J., & Blakemore, S.J. (2010) Development of the selection and manipulation of self-generated thoughts in adolescence. *Journal of Neuroscience*. 30(22):7664-7671.
- Dumontheil, I., Burgess, P.W., & Blakemore, S.J. (2008) Development of rostral prefrontal cortex and cognitive and behavioural disorders. *Developmental Medicine and Child Neurology*. 50(3):168-181.
- Burgess, P.W., Dumontheil, I., & Gilbert S.J. (2007) The gateway hypothesis of rostral prefrontal cortex (area 10) function. *Trends in Cognitive Sciences*. 11(7):290-8.

Adolescent development of the selection and manipulation of self-generated thoughts: A behavioural, functional and structural imaging study

Iroise Dumontheil, S.J. Gilbert, Sarah-Jayne Blakemore

Cognitive control is a term that encompasses all cognitive functions that support the selection of actions that are consistent with one's goal. Cognitive control is thus critical for the regulation of behaviour. One aspect of cognitive control that has recently been investigated in adults is the ability to flexibly control whether one is attending to the environment or to one's own thoughts. This ability would be recruited for example when one is trying to focus on solving a difficult maths problem in a noisy environment, or listen to a lecture instead of mind wandering. We investigated the development of this ability during late childhood and adolescence, the associated functional brain development, and the link between functional and structural brain maturation. Participants classified according to their shape letters either visually presented (stimulus-oriented (SO) phases) or that they generated in their head by continuing the alphabet sequence (stimulus-independent (SI) phases) in the presence or absence of distracting letters. 179 participants (7-27 years old) participated in a behavioural study. Resistance to visual distractors exhibited small improvements with age. Manipulation of SI thoughts and switching between SI and SO thoughts showed steeper performance improvements extending into late adolescence. 37 participants (11-30 years old) participated in a functional magnetic resonance imaging (fMRI) study. SI thoughts manipulation and switching between SO and SI thoughts were each associated with brain regions consistently recruited across ages. In addition, in each contrast a single frontal brain region (left inferior frontal gyrus/anterior insula and right superior RLPFC respectively) exhibited decreased activations with age, which were not purely consequences of structural maturation and may reflect the maturation of neurocognitive strategies. A better understanding of the development of the ability to focus our attention towards our environment or towards our own thoughts could have implications for the educational system, including potential training of children and adolescents who have a poor control of their attention.

Kathryn C. Monahan, Ph.D.

Social Development Research Group
School of Social Work
University of Washington, Seattle, USA



Scientific Career

2004	B.A. in Psychology and Criminal Justice, Minor of Arts in Spanish, University of Portland
2008	Ph.D. in Developmental Psychology, Temple University

Research Interests

My scholarship and research focuses on socioemotional development during adolescence, with a focus on adolescent externalizing behavior, including antisocial behavior, substance use, and high risk sexual behavior. I apply an ecological systems approach to the study of patterns of risk and resilience in relation to psychopathology and am particularly interested in the policy and prevention implications of such developmental patterns.

Selected Publications

- Monahan, K. C. & Steinberg, L. (in press). Continuity of social competence from early childhood to mid-adolescence: Accentuation of individual differences over time. *Journal of Research on Adolescence*.
- Roisman, G. I., Monahan, K. C., Campbell, S., B., Steinberg, L., Cauffman, E., & the Early Child Care Research Network (2010). Is adolescence-onset antisocial behavior developmentally normative? *Development and Psychopathology*, 22, 295-311.
- Monahan, K. C., Steinberg, L., Cauffman, E. & Mulvey, E. (2009). Trajectories of antisocial behavior and psychosocial maturity from adolescence to young adulthood. *Developmental Psychology* 45(6), 1654-1668.
- Monahan, K. C., Steinberg, L., & Cauffman, E. (2009). Affiliation with antisocial peers, susceptibility to peer influence, and desistance from antisocial behavior during the transition to adulthood. *Developmental Psychology* 45(6), 1520-1530.
- Steinberg, L. & Monahan, K. C. (2007). Age differences in resistance to peer influence. *Developmental Psychology* 43(6), 1531-1543.

Developmental Differences in Impulse Control and Antisocial Behavior from Adolescence to Early Adulthood

Kathryn C. Monahan

Involvement in antisocial behavior increases throughout adolescence, peaking around age 17 and declining rapidly thereafter. Some youth, however, show persistent involvement in antisocial and criminal activity into adulthood. One important mechanism that may contribute to antisocial behavior during adolescence and early adulthood is in the ability to regulate impulses. Indeed, impulse control increases throughout adolescence and into early adulthood, and individual variability in the development of impulse control may be related to different patterns of antisocial behavior. Using data from a longitudinal study of 1088 antisocial youth, the present study examined how individual variation in the development of impulse control affects antisocial behavior from middle adolescence into young adulthood (ages 14 to 25 years). Results suggest that rapid increases in impulse control from 14 to 25 are linked with declines in antisocial behavior across the same developmental period. Conversely, youth who do not show increases in impulse control from 14 to 25 are more likely to persist in antisocial behavior during early adulthood. Moreover, impulse control and antisocial behavior are linked over shorter periods of development. Low impulse control is associated with greater antisocial behavior one year later and this effect varies developmentally. In mid-adolescence, low impulse control is linked to greater antisocial behavior. As youth age, this association weakens, and by age 19, there is no association between impulse control and antisocial behavior one year later. Thus, impulse control may play a more important role in adolescent antisocial behavior than in young adult antisocial behavior.

Anne-Marie R. Iselin, Ph.D.

Center for Child and Family Policy
Duke University, Durham, USA



Scientific Career

1999	B.S. in Psychology, Social Welfare, & Criminal Justice, University of Wisconsin-Madison
2006	Clinical Psychology Intern, University of Pittsburgh Medical Center
2007	Ph.D. in Clinical Child Psychology, University of Alabama, Tuscaloosa
2007-2009	Postdoctoral Research Fellow, University of Pittsburgh Medical Center
2009-present	Research Scientist, Duke University

Research Interests

Psychological constructs relevant to juvenile transfers to adult court, such as dangerousness/risk for future violence, sophistication-maturity, and treatment amenability
Cognitive control processes and their relation to social-information processing, mental health symptoms, and cognitive training
Etiology and treatment of serious behavioral and mental health disorders in children and adolescents

Selected Publications

- DeCoster, J., Iselin, A. R., & Gallucci, M. (2009). A conceptual and empirical examination of justifications for dichotomization. *Psychological Methods, 14*, 349-366.
- Iselin, A. R., DeCoster, J., & Salekin, R. T. (2009). Maturity in adolescent and young adult offenders: The role of cognitive control. *Law and Human Behavior, 33*, 455-469.
- Iselin, A. R., & DeCoster, J. (2009). Reactive and proactive control in incarcerated and community adolescents and young adults. *Cognitive Development, 24*, 192-296.
- Leistico, A. R., Salekin, R. T., DeCoster, J., & Rogers, R. (2008). A large-scale meta-analysis relating the Hare measures of psychopathy to antisocial conduct. *Law and Human Behavior, 32*, 28-45.
- Mulvey, E. P., & Iselin, A. R. (2008). Improving professional judgments of risk and amenability in juvenile justice. *The Future of Children, 18*, 35-57.

Relations among cognitive self-regulation, social information processing, and antisocial and prosocial behaviors

Anne-Marie R. Iselin

Self-regulation processes in antisocial behavior have been studied from the perspectives of cognitive control and social information processing. Cognitive control is the ability to engage in deliberate goal-directed behaviors by attending to and selecting information that is relevant to a goal with minimal interference from irrelevant or habitual influences that may contradict that goal. Cognitive control improves with age and is uniquely and independently related to the engagement in antisocial behaviors in adolescence. Perhaps the most empirically-validated paradigm for predicting serious child and adolescent conduct problems is social information processing (e.g., Fontaine & Dodge, 2006; Lochman & Dodge, 1994), which includes processes of selective attention, attribution of intent, goal-setting, social problem solving, and decision making. Although the conceptual links among cognitive control, social information processing, and adolescent conduct problems are clear, they have not yet been empirically examined. We seek to validate these relations using data from the Child Development Project, a longitudinal study of 585 boys and girls followed from preschool to adulthood. We examine cognitive control using Yechiam, Goodnight, Bates, Busemeyer, Dodge, Pettit, and Newman (2006)'s theoretical model, which validated two distinct cognitive control processes: attention to gains and choice consistency. Attention to gains measures how much of an influence rewards and punishments have on performance. Greater attention to gains is related to disruptive behaviors. Choice consistency measures how reliably participant responding is influenced by task-related payoffs. Higher choice consistency is related to lower levels of anxiety and higher IQ. We hypothesize that attention to gains and choice consistency will be uniquely related to cognitive processes from concurrent cognitive tasks, concurrent social-information processing patterns, and past and future antisocial and prosocial behaviors.

We examine (1) cognitive processes using card playing and Stroop tasks; (2) social information processing using video and oral vignettes; (3) antisocial behaviors using the self-reported offending scale and contacts with the law; and (4) prosocial behaviors using self-reported volunteer behaviors. Our analyses use the General Linear Model and examine the influence of covariates (e.g., race, gender). We discuss our results within a social-cognitive developmental model, providing implications for the use of cognitive and social-cognitive indices in the assessment and treatment of adolescents with behavioral problems.

Maria M. Ttofi, Ph.D.

Institute of Criminology
University of Cambridge, UK



Scientific Career

2000	B.A. in Educational Sciences, University of Cyprus
2005	B.A. in Social and Political Sciences, University of Cyprus
2006	M.Phil. in Criminological Research, University of Cambridge
2009	Ph.D. in Criminology, University of Cambridge
2009-present	Leverhulme-Newton Trust Early Career Fellow/post-doctoral researcher

Research Interests

Systematic/meta-analytic reviews
Experimental criminology
School bullying/aggression
Juvenile delinquency
Risk, promotive & protective factors against adult aggression and adult psychopathology

Selected Publications

- Ttofi, M.M., & Farrington, D.P. (2011, in press). Effectiveness of school-based programs to reduce bullying: A systematic and meta-analytic review. *Journal of Experimental Criminology*, online first.
- Ttofi, M.M., Farrington, D.P., Losel, F., & Loeber, L. (2011, in press). The predictive efficiency of school bullying versus later offending: A systematic/meta-analytic review of longitudinal studies. *Criminal Behaviour and Mental Health*.
- Ttofi, M.M., Farrington, D.P., Losel, F., & Lober, L. (2011, in press). Does bullying victimization at school cause adult depression? A systematic/meta-analytic review of longitudinal studies. *Journal of Aggression, Conflict and Peace Research*.
- Ttofi, M. M. & Farrington, D. P. (2008). Reintegrative shaming theory, moral emotions and bullying behavior. *Aggressive Behaviour*, 34 (4), 352 – 368.
- Farrington, D.P., Ttofi, M.M., & Coid, J.W. (2009). Development of adolescence-limited, late-onset, and persistent offenders from age 8 to age 48. *Aggressive Behaviour*, 35, 150 – 163.
- Ttofi, M.M., & Farrington, D.P. (2010). School bullying: Risk factors, theories and interventions. In F. Brookman, M. Maguire, H. Pierpoint, & T.H. Bennett (Eds.), *Handbook of Crime* (pp. 427 – 457). Cullompton, Devon: Willan.

What factors protect adolescent bullies from developing into criminal offenders?

Maria M. Ttofi

A systematic review of studies comparing child and adolescent school bullying with later offending was conducted. Forty three reports from 25 different prospective longitudinal studies were analysed. The Odds Ratio effect size was used to measure the degree to which bullying predicted later offending. Also, adjusted effect sizes were analysed to investigate whether bullying increased the risk of later offending after controlling for earlier (child, parental, child rearing, family and wider environmental) risk factors.

The weighted mean effect size for bullying predicting offending was $OR = 2.59$. The weighted mean adjusted effect size was $OR = 2.18$. The mean adjusted effect size did not vary with the number of risk factors. It is concluded that bullying is a strong predictor of later offending and that the predictive efficiency of bullying is not reduced much after controlling for early risk factors. Therefore, bullying is an independent risk factor for future criminality, and the prevention of bullying should lead to the prevention of later offending.

Research was carried out to investigate protective factors that interrupt the continuity from adolescent bullying to adult offending. The Cambridge Study in Delinquent Development is a prospective longitudinal survey of over 400 London males followed up from age 8 to age 50 in records and with repeated interviews. Bullying was measured according to self-reports at age 14. There were 71 definite bullies (17%) and 200 probable or definite bullies (49%).

Of the definite bullies, 49% were convicted, compared with 37% of the remainder. Of the probable or definite bullies, 22% were convicted for violence, compared with 14% of the remainder. Early risk factors at age 8-10 that predicted a low probability of offending by bullies were investigated. The most important protective factors were: high school attainment, a low delinquency rate school, high non-verbal intelligence, low hyperactivity, low daring and low extraversion.

It is recommended that measures of self-regulation should be investigated as factors that might protect school bullies from becoming criminal offenders. All these findings should be used to design intervention programmes for school bullies, and the effectiveness of these intervention programmes in preventing escalation into criminal offending should be investigated. Theory-guided prevention is needed, including theories that explain low or high self-regulation.

Jennifer Pokorny, Ph.D.

NeuroCognitive Developmental Lab
Center for Mind and Brain, M.I.N.D. Institute
University of California, Davis, USA



Scientific Career

1996	B.A. in Anthropology and Social Welfare (double major), University of Wisconsin, Madison
2007	M.A. in Psychology (Neuroscience & Animal Behavior), Emory University
2009	Ph.D. in Psychology (Neuroscience & Animal Behavior), Emory University
2010-present	Postdoctoral Fellow in Autism Research Training Program at the M.I.N.D. Institute, University of California, Davis

Research Interests

Social cognition
Comparative cognition
Development of action understanding and intention
Biological motion processing
Brain development of children and adolescents

Selected Publications

- Pokorny, J.J., Webb, C.E., & de Waal, F.B.M. (submitted). Capuchin monkeys show specialized face processing with an inversion effect modified by expertise.
- Pokorny, J.J. & de Waal, F.B.M. (2009). Monkeys recognize the faces of group members in photographs. *Proceedings of the National Academy of Sciences*. 106 (51), 21539-21543.
- Pokorny, J.J. & de Waal, F.B.M. (2009). Face recognition in capuchin monkeys (*Cebus apella*). *Journal of Comparative Psychology*. 123(2), 151-160.
- de Waal, F.B.M & Pokorny, J.J. (2008). Faces and behinds: Chimpanzee sex perception. *Advanced Science Letters*, 1(1), 99-103.
- de Waal, F.B.M & Pokorny, J.J. (2005). Primate conflict and its relation to human forgiveness. In Everett L. Worthington (Ed.). *Handbook of Forgiveness*. New York: Brunner-Routledge

Action understanding and the mirror neuron system in autism and typical development

Jennifer J. Pokorny, Naomi Hatt, Sally J. Rogers, Susan M. Rivera

Neurons within the mirror neuron system (MNS) respond in a similar manner when an individual executes a particular action as well as when observing the same action performed by another individual. This system is comprised of several interconnected brain regions and is hypothesized to be involved in the ability to understand the actions of others, including their goals and intentions, and possibility contributes to the ability to take the perspective of others, such as in theory of mind and empathy. Given the difficulties that individuals with autism have with these particular abilities, it has been proposed that the MNS is dysfunctional in autism spectrum disorders (ASD). However, certain imitation skills, which are supported by the MNS, are not compromised in ASD. For instance, the ability to imitate actions performed on objects (transitive actions, e.g. hammering, cutting) is less affected than the ability to imitate gestures performed without objects (intransitive actions, e.g. opening and closing the hand, waving goodbye). This would suggest that the deficits observed in ASD are not the result of a global MNS impairment. Therefore, we examined the MNS using functional magnetic resonance imaging (fMRI) in children and adolescents with ASDs while they viewed actions that varied in transitivity. We hypothesized that individuals with ASD would have abnormal MNS activation only in response to intransitive actions compared to typically developing (TD) individuals. These findings may help elucidate the underlying neural components of understanding others in adolescents with ASD and how this differs from typical development.

Professor Julia A. Graber, Ph.D.

Department of Psychology
University of Florida, Gainesville, USA

**Scientific Career**

1984	B.S. in Psychology, Michigan State University
1988	M.S. in Developmental Psychology, Penn State University
1991	Ph.D. in Developmental Psychology, Penn State University
1992-2001	Senior Research Scientist to Adjunct Associate Professor, Director of Graduate Training, Teachers College, Columbia University
2001-2010	Associate to Associate Professor, Department of Psychology, University of Florida
2010	Professor in Psychology, University of Florida

Research Interests

Development of Psychopathology during Adolescence. In particular, this work has focused on the experience of puberty and pubertal timing, bio-psychosocial processes influencing development of psychopathology, and individual differences in navigating developmental transitions during adolescence.

Selected Publications

- Graber, J. A., Nichols, T. R., & Brooks-Gunn, J. (2010). Putting pubertal timing in developmental context: Implications for prevention. *Developmental Psychobiology*, 52, 254-262.
- Lynne-Landsman, S. D., Graber, J. A., & Andrews, J. A. (2010). Do trajectories of household risk in childhood moderate pubertal timing effects on substance initiation in middle school? *Developmental Psychology*, 46, 853-868.
- Graber, J. A., Seeley, J. R., Brooks-Gunn, J., & Lewinsohn, P. M. (2004). Is pubertal timing associated with psychopathology in young adulthood? *Journal of the American Academy of Child and Adolescent Psychiatry*, 43(6), 718-726.
- Graber, J. A., Lewinsohn, P. M., Seeley, J. R., & Brooks-Gunn, J. (1997). Is psychopathology associated with the timing of pubertal development? *Journal of the American Academy of Child and Adolescent Psychiatry*, 36, 1768-1776.
- Graber, J. A., & Brooks-Gunn, J. (1996). Transitions and turning points: Navigating the passage from childhood through adolescence. *Developmental Psychology*, 32 (4), 768-776.

Challenges to Self-regulation During Early Adolescence

Julia A. Graber, Lisa M. Sontag

Vulnerability-stress models of the development of psychopathology during adolescence have been applied to a wide range of outcomes, including both internalizing and externalizing symptoms and behaviors. Stressors of adolescence may be stressful events that occur in different domains of an adolescent's life, or may be part of the normative developmental transitions of adolescence, such as puberty. That is, pubertal development is a source of challenge for most, if not all, young adolescents at some point during the process. Given that adolescence is characterized by substantial changes in social realms (e.g., increased focus on peers, more intimate peer relationships, and shifts in friendships and peer groups), new stressors related to puberty may also be social in nature as young adolescents adapt to new peer relationships and responses from others to their developing bodies. Parallel changes in physiological arousal and emotionality related to pubertal maturation pose additional challenges for adolescents navigating this developmental transition. At the same time, most individuals manage these changes effectively, developing skills to navigate new social experiences and regulate changing affect. Whereas many aspects of self-regulation may be relatively stable by adolescence, new bio-psychosocial challenges may interact with pre-existing regulatory capacities at this time. The goal of this presentation is to highlight vulnerabilities (i.e., personal traits that put individuals at risk for psychopathology) that are particularly salient to social and pubertal challenges of adolescence.

Emotional changes and subsequent new challenges to regulation at puberty have often been connected to hormonal changes; however, as noted, puberty is experienced in a social context and new feelings and concepts of the self are in part influenced by how the individual and others respond to one's pubertal changes. In particular, off-time pubertal maturation confers substantial risk for serious problems during adolescence for some individuals. Although much research has explored variations in the influence of pubertal timing on psychopathology during adolescence, only recently have researchers begun to examine mechanisms explaining variations in such effects. Applying a vulnerability-stress model, the interaction between individual differences in self-regulation and off-time maturation may explain why the pubertal transition confers risk for some adolescents and not others. In this presentation, exemplars of findings from a series of studies testing this model will be reviewed. Such findings shed light on which aspects of regulation are most salient to explaining why off-time development confers risk for psychopathology during adolescence and adulthood. Moreover, these explanatory mechanisms for effects identify targets of preventive intervention.

Professor Philip Costanzo, Ph.D.

Psychology and Neuroscience
Duke University, Durham, USA

**Scientific Career**

1963	B.A. in Psychology, Villanova University, Pennsylvania
1967	Ph.D. in Psychology, University of Florida
1967-1968	Postdoctoral studies in Developmental Sociolinguistics, University of Florida
1968-present	Assistant Professor to Full Professor, Duke University
1990-1999	Chair, Dept. of Psychology: Social and Health Sciences, Duke University
1999-present	Associate Director, Center for Child and Family Policy, Duke University
2002-present	Co-Principal Investigator, Duke Transdisciplinary Prevention Research Center
2006-present	Fellow, American Psychological Society

Research Interests

Social and Affective Development
Peer influence and peer relationships in adolescence
Social psychological models of preventive intervention
Transformations in identity over the life course
Development of social and moral cognition

Selected Publications

- Costanzo, P., Hoyle, R. H., & Leary, M. R. (2011, in press). Personality, social, psychology, and psychopathology: Reflections on a Lewinian vision. In K. Deaux & M. Snyder (Eds.), *The Oxford handbook of personality and social psychology*. New York: Oxford University Press.
- Lansford, J.E., Killea-Jones, L.A., Miller, S., & Costanzo, P.R. (2009). Early adolescents' social standing in peer groups: Behavioral correlates of stability and change. *Journal of Youth and Adolescence*, 38, 1084-1095.
- Miller-Johnson, S., Lansford, J.E., Costanzo, P.R., Malone, P.S., Golonka, M. & Killea-Jones, L.A. (2009). Early adolescent dating relationships, peer standing, and risk-taking behaviors. *Journal of Early Adolescence*, 29, 839-861.
- Killea-Jones, L.A., Costanzo, P.R., Malone, P., Quinlan, N.P., & Miller-Johnson, S. (2007). 'Compared to my friends, I'm not sobad': Self- and other-perceived deviance in early-adolescent same-sex and mixed-sex cliques. *Journal of School Psychology*, Vol. 45, Issue 5, October 2007, pp. 549-565
- Killea-Jones, L.A., Nakajima, R., & Costanzo, P.R., (2007). Peer standing and substance use in early-adolescent grade-level networks. *Prevention Science*. 8, 1, 11-24.

Peer Influence and Self-Regulation in Adolescents: Exploring the Role of Social Identity Formation in Both Promoting and Preventing Risk-Prone Choices

Philip Costanzo

The study of the transitions accompanying the emergence of socially embedded identity in early adolescence has occupied the careers of multiple scholars of developmental process. Many of the theoretical models deployed to characterize or influence this important life transition have underestimated the contextual challenges confronted by adolescents as they traverse phases of identity. This is nowhere more evident than in the burgeoning body of research probing the prevention of risky behavior in young adolescents. Much prevention research and theory seems to bypass the identity related challenges comprising adolescent psychological experience. Poised between a world in which self-regulation is scaffolded by adult regulation and a psychological world driven by the growing importance of peer norms, the adolescent strives to simultaneously attach to peer-defined goals and values while staking out a distinctive place for the self. In confronting this developmental challenge, an adaptive resolution involves the transitional merger of social and personal identities. That is, it is psychologically “economical” for adolescents to view the shared preferences that bind them to their peers as markers of their own distinctive identity—an identity separating them from the adult-leaning self-definitions of their childhood years. In our research we have found that this paradoxical tendency to carve out a distinctive self while merging ones desired goals with those of peers is manifest in the heightened influence power of the deviant behavior of one’s peers. Both deviant and conventional peer leaders of groups and cliques tend to engage in risky behaviors (eg. substance use, early sex) at higher rates than less prominent peers. Typical risk prevention programs appear to be designed to implicitly require adolescents to discount the potency of peer influence in the formulation of their own goals and intentions. For example, many programs designed to prevent adolescent risk-taking deploy adult initiated messages or adult constructed educational approaches. Further, a good number of these approaches swim up the developmental stream by teaching adolescents “peer resistance skills”. Those prevention approaches that do employ peers fail to attend to the natural leadership structure of adolescent groups. As a contrasting alternative, I will delineate a theoretical model derived from both the social psychology of the flow of social influence and the developmental psychology of identity formation. We have used this model to successfully implement risk prevention trials with adolescents in which we deploy natural peer leaders as influence agents –both over their own risk-prone behavior (self-persuasion) and that of their peer associates. After a discussion of these results I will conclude by theoretically illustrating the important role that natural peer influence plays in the emergence of adaptive implemental mindsets during adolescence.

Professor Susan Nolen-Hoeksema, Ph.D.

Department of Psychology
Yale University, New Haven, USA



Scientific Career

1982	B.A., Yale University
1986	Ph.D. in Psychology, University of Pennsylvania
1986-1995	Assistant, then Associate Professor, Stanford University
1995-2004	Associate, then Full Professor, University of Michigan
2004-present	Professor, Yale University

Research Interests

Depression and related disorders
Emotion regulation
Adolescent mental health
Gender differences in mental health

Selected Publications

- Aldao, A., Nolen-Hoeksema, S., & Schweizer, S. (2010). Emotion regulation strategies across psychopathology: A meta-analytic review. *Clinical Psychology Review, 30*, 217-237.
- Nolen-Hoeksema, S., Wisco, B., & Lyubomirsky, S. (2008). Rethinking rumination. *Perspectives on Psychological Science, 3*, 400-424.
- Nolen-Hoeksema, S., Stice, E., Wade, E., & Bohon, C. (2007). Reciprocal relations between rumination and bulimic, substance abuse, and depressive symptoms in adolescent females. *Journal of Abnormal Psychology, 116*, 198-207.
- Nolen-Hoeksema, S., & Girgus, J.S. (1994). The emergence of gender differences in depression in adolescence. *Psychological Bulletin, 115*, 424-443.
- Nolen-Hoeksema, S. (1987). Sex differences in unipolar depression: Evidence and theory. *Psychological Bulletin, 101*, 259-282. Reprinted in J.M. Hooley, J.M. Neale, & G.C. Davison (Eds.), *Readings in Abnormal Psychology*. NY: Wiley, 1989; and in C.N. Jacklin (Ed.), *International Library of Critical Writings in Psychology*. London: Edward Elgar Publishing, 1992.

Rumination and Failure of Self-Regulation of Goal Pursuits: Mechanisms and Implications for Intervention

Susan Nolen-Hoeksema

Regulating one's emotions is a key component of successful self-regulation of goal pursuits. When emotions are poorly regulated they can interfere with the choice of goals and the pursuit of goals, and thus to maladaptive behaviors and emotions. One response to negative emotions that interferes with self-regulation of goal pursuits is rumination, that is, focusing on and analyzing one's distress and its possible causes and consequences without taking action to overcome the sources of the distress. Studies of adolescents and adults find that those who tend to ruminate in response to distress are more vulnerable to symptoms and diagnoses of depression and anxiety. Rumination is also associated with poor behavioral choices, such as binge-drinking, binge-eating and self-harming behaviors, and to poor academic achievement. Experimental studies indicate three mechanisms by which rumination may interfere with the choice of goals, the generation of solutions to problems impeding goal progress, the implementation of solutions to problems, and the energization of action toward goals. First, rumination enhances negative thinking about the past, present and future, thus contributing to dwelling rather than mental contrasting. Second, rumination interferes with the generation of good solutions to problems and the implementation of solutions to problems, thus preventing the enactment of adaptive implementation intentions. Third, rumination saps motivation for adaptive action, or energization. We describe an innovative intervention to overcome rumination that teaches individuals how to break the ruminative cycle and engage in more effective problem solving through strategies that facilitate mental contrasting and forming implementation intentions. This intervention is currently being tested in adolescent girls from very low socioeconomic communities who face extreme chronic stress. Outcomes of interest are depression, anxiety, self-harm, substance abuse, binge-eating, and academic achievement.

Professor Ulrich Trautwein, Ph.D.

Center for Educational Science and Psychology
University of Tübingen, Germany

**Scientific Career**

1999	Diploma in Psychology, Göttingen University
2002	Ph.D. in Psychology, Free University of Berlin
2005	Full lecture qualification (Habilitation) in Psychology, Free University of Berlin
2005-2008	Research Associate Professor, Max Planck Institute for Human Development Berlin
2008-present	Full Professor for Educational Science, University of Tübingen

Research Interests

Empirical educational research, broadly defined. In particular, the development of school achievement as well as self-concept and interest; the influence of homework on school achievement and achievement-related behaviors and motivation.

Selected Publications

- Trautwein, U., Lüdtke, O., Marsh, H. W., & Nagy, G. (2009). Within-school social comparison: How students' perceived standing of their class predicts academic self-concept. *Journal of Educational Psychology, 101*, 853-866.
- Trautwein, U., Lüdtke, O., Roberts, B. W., Schnyder, I., & Niggli, A. (2009). Different forces, same consequence: Conscientiousness and competence beliefs are independent predictors of academic effort and achievement. *Journal of Personality and Social Psychology, 97*, 1115-1128.
- Trautwein, U., Niggli, A., Schnyder, I., & Lüdtke, O. (2009). Between-teacher differences in homework assignments and the development of students' homework effort, homework emotions, and achievement. *Journal of Educational Psychology, 101*, 176-189.
- Trautwein, U., Lüdtke, O., Kastens, C., & Köller, O. (2006). Effort on homework in grades 5 through 9: Development, motivational antecedents, and the association with effort on classwork. *Child Development, 77*, 1094-1111.
- Trautwein, U., Lüdtke, O., Köller, O., & Baumert, J. (2006). Self-esteem, academic self-concept, and achievement: How the learning environment moderates the dynamics of self-concept. *Journal of Personality and Social Psychology, 90*, 334-349.

Homework: When Self-Regulation Really Matters

Ulrich Trautwein

My ongoing work investigates development and learning from the perspective of institutionalized education. In the interaction between the individual learner and the institutional educational setting, the learner is seen as the co-producer of his or her development. One of my key areas of interest is the role of self-regulation in homework. In the present overview, I first present empirical evidence pointing to deficits in student self-regulation before elaborating on the underlying research model and highlighting some recent findings from my research program. My research shows that homework effort has a complex pattern of causes and consequences. In addition to student variables, teachers, parents, and peers all play an important role. Programs aiming to improve self-regulation in the homework context need to consider a broad set of variables. Motivational variables that play a key role in educational psychology need to be complemented by more personality-oriented variables. My current and future studies focus on interventions in classroom contexts, the development of conscientiousness, and homework effectiveness and efficiency. There is potential for cross-fertilization in all of these projects.

Professor Jari-Erik Nurmi, Ph.D.

Department of Psychology
University of Jyväskylä, Finland



Scientific Career

1980	M.A. in Psychology, University of Turku
1989	Ph.D. in Psychology, University of Helsinki
1990-1996	Researcher of the Academy of Finland
1996-present	Professor at the University of Jyväskylä

Research Interests

Adolescents' development
Motivation and learning
Future orientation
Classroom interaction
Modelling of developmental processes

Selected Publications

- Shulman, S., & Nurmi, J.-E. (in press). Dynamics of Goal Pursuit and Personality Make-up among Emerging Adults: Typology, Change Over time, and Adaptation. In Special Issue (Eds. Shulman, S., & Nurmi, J.-E.) "Understanding Emerging Adulthood from a Goal-Setting Perspective". *New Directions for Child and Adolescent Development*.
- Kiuru, N., Koivisto, P., Mutanen, P., Vuori, J., & Nurmi, J.-E., (in press). How do efforts to enhance career preparation affect peer groups? *Journal of Research on Adolescence*.
- Seiffge-Krenke, I., Aunola, K., & Nurmi, J.-E. (2009). Changes in stress perception and coping style during adolescence: The role of situational and personal factors. *Child Development*, 80, 259-279.
- Nurmi, J.-E., Salmela-Aro, K., & Aunola, K. (2009). Personal goal appraisals vary across both individuals and goal contents. *Personality and Individual Differences*, 47, 498-503.
- Nurmi, J.-E. (2004). Socialization and self-development: Channeling, selection, adjustment and reflection. In R. Lerner & L. Steinberg (Eds.), *Handbook of adolescent psychology*. New York: Wiley.

Construction and Reconstruction of Personal Goals among Young People: Previous Evidence and Some Recent Findings

Jari-Erik Nurmi

I have previously conceptualized personal goals as a part of a larger self-direction and socialization process. On the one hand, young people make an effort to direct their future lives in their sociocultural contexts by constructing various goals. In order to create realistic goals, individuals need to compare their individual motivation to the demands and opportunities that are available in their developmental environments. After goal construction young people also need to plan various means by which they are able to attain their goals. However, young people do not always succeed in actualizing their goals and plans but rather face failures, obstacles and changing demands. In this case, a successful tackling with the new situation requires reconstruction of previous goals and plans. Both the construction of personal goals, as well as the reconstruction of them is assumed to have consequences for young people's well being. Our previous research has shown that the majority of young people construct goals that are in accordance with the age-graded developmental tasks and social constraints, and that they also change their goals in respect to the demands they face during a certain stage of the transition they are going through. Moreover, the construction of goals that are in accordance to age-graded developmental tasks, and the reconstruction of previous goals to match with the demands of a particular transition have been found to contribute to young people's well-being. However, some of our recent findings challenge not only our own but also other researchers' assumptions concerning the determinants of personal goals. First, in one recent behavioral genetic study we found that individual variation in personal goals showed a substantial amount of genetic effect. For example, personal goals related to education, own family, friends, property, travel and self-related goals showed primarily genetic and unique environmental effects. Second, some of our recent results suggest that the tradition to aggregate goal appraisals across various goal contents may not be the best way to analyze the results. In one recent study we found that, although goal appraisals varied between individuals (i.e., were individual characteristics), they differed to a greater extent across the different goal contents a particular person reported.

Professor Carol S. Dweck, Ph.D.

Department of Psychology
Stanford University, Stanford, USA



Scientific Career

1967	B.A. in Psychology, Barnard College, Columbia University
1972	Ph.D. in Psychology, Yale University
1972-1981	Assistant, Associate, Full Professor of Psychology, University of Illinois
1981-1985	Professor, Laboratory of Human Development, Harvard University
1985-1989	Professor of Psychology, University of Illinois
1989-2004	William B. Ransford Professor of Psychology, Columbia University
2004-present	Lewis & Virginia Eaton Professor of Psychology, Stanford University

Research Interests

Motivation and self-regulation

Selected Publications

- Blackwell, L., Trzesniewski, K., & Dweck, C.S. (2007). Implicit theories of intelligence predict achievement across an adolescent transition: A longitudinal study and an intervention. *Child Development*, 78, 246-263.
- Dweck, C.S. (1999). *Self-Theories: Their role in motivation, personality and development*. Philadelphia: Taylor and Francis/Psychology Press.
- Dweck, C.S., & Leggett, E.L. (1988). A social-cognitive approach to motivation and personality, *Psychological Review*, 95, 256-273.
- Elliott, E.S., & Dweck, C.S. (1988) Goals: An approach to motivation and achievement. *Journal of Personality and Social Psychology*, 54, 5-12.
- Diener, C.I., & Dweck, C.S. (1978). An analysis of learned helplessness: Continuous changes in performance, strategy and achievement cognitions following failure. *Journal of Personality and Social Psychology*, 36, 451-462.

Mindsets, Self-Regulation, and Successful Goal Pursuit

Carol S. Dweck

In this talk, I will show how mindsets – adolescents' beliefs about whether their personal characteristics are fixed or malleable – affect their successful pursuit of goals relating to achievement, social relations, and health. I will also pinpoint the role of self-regulation in creating these effects.

Lisa M. Sontag, Ph.D.

Division of Adolescent Medicine
Cincinnati Children's Hospital Medical Center
Cincinnati, USA



Scientific Career

2000-2004	B.S. in Psychology, Tulane University
2004-2009	Ph.D. in Developmental Psychology, University of Florida
2009-present	NRSA T-32 Postdoctoral Research Fellow, Cincinnati Children's Hospital Medical Center

Research Interests

Stress and coping during childhood and adolescence
Developmental psychopathology
Puberty
Behavioral endocrinology

Selected Publications

- Sontag, L. M., Dorn, L. D., Tissot, A., Susman, E. J., Beers, S., & Rose, S. (in press). Executive functioning, cortisol reactivity, and symptoms of psychopathology in girls with premature adrenarche. *Development and Psychopathology*.
- Sontag, L. M., Clemans, K. H., Graber, J. A., & Lyndon, S. T. (2010). Traditional and cyber aggressors and victims: A Comparison of psychosocial characteristics. *Journal of Youth and Adolescence*, online first.
- Sontag, L. M., Graber, J. A., & Clemans, K. H. (2010). The role of peer stress and pubertal timing on symptoms of psychopathology in early adolescence. *Journal of Youth and Adolescence*, online first.
- Sontag, L. M. & Graber, J. A. (2010). Coping with perceived peer stress: Gender specific and common pathways to symptoms of psychopathology. *Developmental Psychology*, 46, 1605-1620.
- Sontag, L. M., Graber, J. A., Brooks-Gunn, J., & Warren, M. P. (2008). Coping with social stress: Implications for psychopathology in young adolescent girls. *Journal of Abnormal Child Psychology*, 36, 1159-1174.

Coping with Perceived Peer Stress: Gender Specific and Common Pathways to Symptoms of Psychopathology

Lisa M. Sontag

Background. Adolescence represents a period for developing skills—interpersonal as well as personal. It also represents a period of increased risk for symptoms of psychopathology with gender differences in trajectories of depression and aggression emerging during adolescence. Self-regulation skills have been identified as critical components of individual differences in symptoms. These skills become particularly important as ways of coping with the influx of negative peer experiences often seen during the middle school years. Hence, this study investigated gender differences in effects of coping behaviors and involuntary responses to stress on the association between perceived peer stress and symptoms of psychopathology in young adolescent girls and boys.

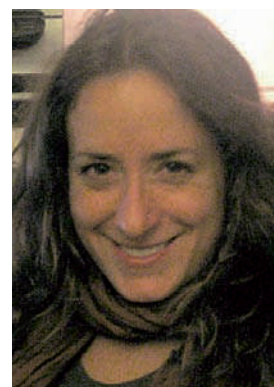
Methods. 295 middle school students (64% female; $M_{age} = 12.4$, $SD = 1.0$; 56% Caucasian, 25% African American, 10% Latino, and 9% other) completed self-report surveys on perceived peer stress, coping and involuntary responses to peer stress, and anxious/depressive symptoms and aggression. Structural equation modeling (SEM) was used to examine models of moderated-mediation. Given high comorbidity rates of depression and aggression during adolescence and the overlap in use of various coping strategies, multiple mediators and outcomes were examined simultaneously in the model.

Results. Perceived peer stress was indirectly associated with greater anxious/depressive symptoms via involuntary responses (e.g., physiological arousal, intrusive thoughts) and disengagement coping (e.g., denial, avoidance) for both girls and boys. In contrast, peer stress was indirectly associated with overt aggression via disengagement coping for boys only. Interestingly, disengagement coping was associated with less aggression for boys suggesting that ignoring or avoiding negative peer experiences may be an effective way to delay immediate tendencies to react aggressively. Finally, engagement coping (e.g., problem solving, emotion regulation) buffered the indirect effect of peer stress on symptoms of psychopathology for girls only, suggesting that engagement coping may be particularly effective for girls compared to boys. It is possible that coping strategies categorized as engagement (e.g., talking to someone about how to deal with the problem, expressing one's feelings, etc.) may be perceived as more gender-typical and socially acceptable behaviors for girls compared to boys.

Conclusions. Findings suggest that the stress and coping process, in particular the role of self-regulatory behaviors, differed by gender and may not be universally effective. Modifying current programming or adapting future programs to consider potential gender differences in the effectiveness of coping strategies may better serve to reduce the incidence of internalizing and externalizing symptoms and behaviors during adolescence.

Katie A. McLaughlin, Ph.D.

Division of General Pediatrics
Children's Hospital Boston
Harvard Medical School, Boston, USA

**Scientific Career**

2002	B.A. in Psychology, University of Virginia
2004	M.S. in Clinical Psychology, Pennsylvania State University
2008	Ph.D. in Clinical Psychology and in Epidemiology and Public Health, Yale University
2008-2010	Robert Wood Johnson Health & Society Scholar, Harvard School of Public Health
2011	Assistant Professor of Pediatrics and Psychiatry, Children's Hospital Boston, Harvard Medical School

Research Interests

Adolescent emotion regulation, childhood adversity and mental health, mechanisms linking stress exposure to mental health problems, developmental psychopathology of mood and anxiety disorders, psychiatric epidemiology

Selected Publications

- McLaughlin, K.A., Kubzansky, L.D., Dunn, E.C., Waldinger, R., Vaillant, G.E., & Koenen, K.C. (2010). Childhood social environment, emotional reactivity to stress, and mood and anxiety disorders across the life course. *Depression and Anxiety*, 27, 1087-1094.
- McLaughlin, K.A., Green, J.G., Gruber, M., Sampson, N., & Kessler, R.C. (2010). Childhood adversities and adult psychopathology in the National Comorbidity Survey Replication (NCS-R) II: Associations with persistence of DSM-IV disorders. *Archives of General Psychiatry*, 62, 124-132.
- McLaughlin, K.A., Conron, K.J., Koenen, K.C., & Gilman, S.E. (2010). Childhood adversity, adult stressful life events, and risk of past-year psychiatric disorder: A test of the stress sensitization hypothesis in a population-based sample of adults. *Psychological Medicine*, 40, 1647-1658.
- McLaughlin, K.A., & Hatzenbuehler, M. (2009). Mechanisms linking stressful life events and mental health problems in a prospective, community-based sample of adolescents. *Journal of Adolescent Health*, 44, 153-160.
- McLaughlin, K.A., Hatzenbuehler, M.L., & Hilt, L.M. (2009). Emotion dysregulation as a mechanism linking peer victimization to internalizing symptoms in adolescents. *Journal of Consulting and Clinical Psychology*, 77, 894-904.

Emotion Dysregulation is a Mechanism Linking Stress Exposure to Adolescent Depression and Anxiety

Katie A. McLaughlin

The deleterious effects of stress on mental health are well documented (Brown, 1993; Dohrenwend, 1998). The biological mechanisms linking stress to disease, particularly dysregulation in the neuroendocrine and immune systems, have been consistently identified (Kiecolt-Glaser et al., 2002; Segerstrom & Miller, 2004). The psychological mechanisms underlying the association between stress and psychopathology are less well understood. One possibility is that exposure to stress disrupts self-regulation and interferes with adaptive regulation of emotion and behavior. Here, I provide evidence that stress increases emotion dysregulation among adolescents and that this disruption in regulation is a mechanism linking stress to the development of internalizing symptoms.

Emotion regulation represents a plausible mechanism underlying the relationship between adolescent stress and psychopathology. Chronic stress associated with adverse rearing environments is associated with emotion regulation deficits in children and adolescents (Repetti et al., 2000). Social exclusion and stigma—both socially meaningful stressors—have been shown to be *ego depleting*, whereby exerting self-control in one domain consumes regulatory resources that are needed for future tasks in other domains (Baumeister et al., 2005; Inzlicht et al., 2006). Exposure to social stress elicits negative emotions including anger, sadness, and contempt, and is associated with elevated emotional arousal and reactivity (Mahady Wilton et al., 2000; Schwartz, Dodge, & Coie, 1993). Over time, the effort required to manage the increased arousal and negative affect associated with stressful experiences may diminish adolescents' coping resources and therefore their ability to understand and adaptively manage their emotions, leaving them more vulnerable to psychopathology.

I examined the longitudinal associations between stress exposure, emotion dysregulation, and internalizing symptoms in a large (N=1,065) sample of adolescents, aged 11 to 14. Exposure to stressful life events (e.g., parental divorce), peer victimization, emotion regulation, and symptoms of depression and anxiety were assessed at a baseline interview and at two assessments 4- and 7-months later. Structural equation modeling was used to create a latent construct of emotion dysregulation from measures of discrete emotion processes. Stressful life events and peer victimization predicted increases in emotion dysregulation. Increases in emotion dysregulation, in turn, mediated the longitudinal relationship between these stressors and changes in internalizing symptoms.

These findings suggest that exposure to stress disrupts adaptive self-regulation, thereby increasing risk for psychopathology in adolescence. These results highlight the role of the environment in the development of self-regulation in adolescence. The identification of social and contextual factors that shape self-regulation represents an important goal for future research.

Noona Kiuru, Ph.D.

Department of Psychology
University of Jyväskylä, Finland



Scientific Career

2003	M.A. in Psychology, Department of Psychology, University of Jyväskylä
2007	M.A. in Science (statistics as main subject), Department of Mathematics and Statistics
2008	Ph.D. in Psychology, Department of Psychology, University of Jyväskylä
2007-2009	Assistant professor, University of Jyväskylä
2010-2012	Post-doctoral research project funded by Academy of Finland "Examining the development of academic performance and adaptation in the context of interpersonal relations: peers, parents, and teachers"

Research Interests

Childhood and adolescence, interpersonal contexts (peers, parents, teachers), learning and motivation, well-being and adjustment, critical transitions, methodological issues

Selected Publications

- Kiuru, N., Koivisto, P., Mutanen, P., Vuori, J., & Nurmi, J.-E., (in press). How do efforts to enhance career preparation affect peer groups? *Journal of Research on Adolescence*.
- Pakarinen, E., Kiuru, N., Lerkkanen, M.-K., Poikkeus, A.-M., Ahonen, T., & Nurmi, J.-E. (in press). Instructional support predicts children's task-avoidance in Kindergarten. *Early Childhood Research Quarterly*.
- Kiuru, N., Haverinen, K., Salmela-Aro, K., Nurmi, J.-E., Savolainen, H. & Holopainen, L. (in press). Students with reading and spelling disabilities: Peer groups and educational attainment in secondary education. *Journal of Learning Disabilities*.
- Laursen, B., Bukowski, W. M., Nurmi, J.-E., Marion, D., Salmela-Aro, K., & Kiuru, N. (2010). Opposites detract: Middle school peer group antipathies. *Journal of Experimental Child Psychology*, 106, 240- 256.
- Kiuru, N., Burk, W., Laursen, B., Salmela-Aro, K., & Nurmi, J.-E. (2010). Pressure to drink but not to smoke: Disentangling selection and socialization in adolescent peer networks and peer groups. Special issue: Capturing peer context. *Journal of Adolescence*, 33, 801-812.

Selecting, Retaining, and Socializing Friends on the Basis of Their Depressive Symptoms

Noona Kiuru, William Burk, Brett Laursen, Jari-Erik Nurmi, Katariina Salmela-Aro

The aim of the study is to examine the processes of peer selection, de-selection, and three alternative forms of socialization related to adolescents' clinical depression. The sample included 949 Finnish secondary education students (mean age 16 years at the outset) from eight schools. Participants identified three school friends and reported depressive symptoms on two occasions one year apart. Using clinical cutoffs, adolescents were classified at both time points as having no depression, subclinical or clinical depression. The data was analyzed by means of dynamic social network analysis. The results showed that adolescents initiated friendships with peers whom they resembled in depression. Adolescents were also more likely to end friendships with peers who became dissimilar in depression. Adolescents' tended to become increasingly similar to their friends' depression (*average socialization*) and this tendency was more robust for adolescents with more friends compared to those with fewer friends (*cumulative socialization*). However, adolescents did not report elevated levels of depression when their friends were more depressed (*elevated socialization*). The findings suggest that peer socialization in adolescent depression operates in both negative and positive directions: Associating with depressed friends increases the risk for depressive disorder, but also associating with non-depressed friends reduces depression. There is a need for research on exactly when and under which circumstances interactions with friends can act as a protective factor and adaptive resource against depression. After identifying these adaptive processes in more detail prevention efforts should be targeted to promote them and thus prevent depression.

Key Words: Adolescence, peer networks, depressive symptoms, clinical depression, peer selection, peer deselection, peer socialization, different forms of peer socialization

Veronika Job, Ph.D.

Department of Psychology
University of Zurich, Switzerland



Scientific Career

2003	M.A., University of Zurich
2003-2007	Graduate Student, University of Zurich
2007	Ph.D., University of Zurich
2007-2008	Post-Doctoral Fellow, University of Zurich
2008-2010	Post-Doctoral Fellow, Stanford University
Since 2010	Post-Doctoral Fellow, University of Zurich

Research Interests

The effect of top-down variables (i.e., implicit theories, expectations, motivation) on self-regulation (i.e., ego-depletion, goal-striving)
Antecedences and consequences of congruence between implicit and explicit motive dispositions and personal goals

Selected Publications

- Job, V., Dweck, C. S., & Walton, G. M. (2010). Ego-depletion – Is it all in your head? Implicit theories about willpower affect self-regulation. *Psychological Science*, 21, 1686-1693.
- Job, V., Oertig, D., Allemann, M., & Brandstätter, V. (2010). Motive-discrepancies as antecedents of unhealthy eating behavior. *Journal of Personality*, 78, 1209-1238.
- Job, V., Langens, T. A., & Brandstätter, V. (2009). Effects of achievement goal striving on well-being: The moderating role of the explicit achievement motive. *Personality and Social Psychology Bulletin*, 35, 983-996.
- Job, V. & Brandstätter, V. (2009). To get a taste of your goals: Creating motive-goal congruence by affect-focus goal-fantasy. *Journal of Personality*, 77, 1527-1560.
- Schüler, J., Job, V., Fröhlich, S., & Brandstätter, V. (2008). A high implicit affiliation motive does not always make you happy: A corresponding explicit motive and corresponding behavior are further needed. *Motivation and Emotion*, 32, 231-242.

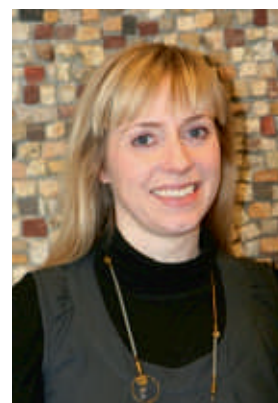
Implicit Theories about Willpower: Effects on Adolescents' Self-regulation and Goal Striving

Veronika Job, Carol S. Dweck, G. M. Walton

Some of the most provocative and influential research of the past decade has investigated the *strength model of self-control* (e.g., Baumeister, Vohs, & Tice, 2007). This model suggests that acts of self-regulation consume a resource that is limited, leaving people less able to exert self-control on subsequent tasks. According to this model self-control failure is most likely during stressful times with enhanced demands on self-regulation. However, we have shown that the way adolescents *think* about willpower (as a limited vs. as a nonlimited resource) affects their goal-striving and their self-regulation in everyday life. In Study 1 adolescents ($N = 41$) were tracked across three time points, the last of which occurred during their final exams. We assessed their implicit theories about willpower (as a limited vs. nonlimited resource), their self-regulation with respect to a personal achievement goal, and their everyday self-regulatory behavior (e.g., eating behavior, procrastination). As predicted, the more students held a limited resource theory the worse was their later self-regulation (their eating habits, their study habits, and their self-regulation toward their valued goal) during final exams when demands on self-regulation were high. Study 2 ($N = 153$) replicated the results from Study 1 with a larger sample that was tracked across five measurement points. Additionally, individualized measures of self-regulatory demands were included. The results showed that implicit theories about willpower interact with self-regulatory demands (stress) in predicting changes in everyday self-regulation. When demands are high, those with the limited theory fare more poorly. Finally, participants in experimental Study 3 ($N = 77$) were led to adopt a nonlimited vs. limited resource theory. We found that only students who were led to think that the capacity for self-control is limited showed diminished self-control after a depleting experience. Taken together, the findings suggest that adolescents' *beliefs* about the availability of willpower play an important role in their self-regulation and goal striving during demanding periods.

Steinunn Gestsdóttir, Ph.D.

School of Education
University of Iceland, Reykjavik, Iceland



Scientific Career

1996	B.A. in Psychology, University of Iceland
2001	M.A. in Psychology, Boston University
2006	Ph.D. in Applied Child Development, Tufts University
2005-present	Assistant Professor/Associate Professor of Developmental Psychology, School of Education, University of Iceland

Research Interests

My research focuses on the development of self-regulation, particularly intentional self-regulation in adolescence, as well the role of regulatory behaviors in healthy development across childhood and adolescence. I am also interested in finding ways to integrate research and teaching/interventions to improve the lives of children, adolescents, and families.

Selected Publications

- Bowers, E., Gestsdottir, S., Geldhof, G. J., Nikitin, J., & von Eye, A. (in press). Developmental Trajectories of Intentional Self Regulation in Adolescence: The Role of Parenting and Implications for Positive and Problematic Outcomes among Diverse Youth. *Journal of Adolescence*.
- Gestsdottir, S., Bowers, E., von Eye, A., Napolitano, C. M., & Lerner, R. M. (2010). Intentional Self Regulation in Middle Adolescence: The Emerging Role of Loss-based Selection in Positive Youth Development. *Journal of Youth and Adolescence*, 39, 764-782.
- Gestsdottir, S., Lewin-Bizan, S., von Eye, A., Lerner, J.V., & Lerner, R. M. (2009). The structure and function of selection, optimization and compensation in middle adolescence: Theoretical and applied implications. *Journal of Applied Developmental Psychology*, 30, 585-600.
- Gestsdottir, S. & Lerner, R. M. (2008). Positive Development in Adolescence: The Development and Role of Intentional Self-Regulation. *Human Development*, 51(3), 202-224.
- 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.

The development of self-regulation in adolescence: The building blocks for a healthy future

Steinunn Gestsdóttir

Recent research has identified self-regulation as a fundamental process of healthy functioning during the adolescent period. Nevertheless, few longitudinal studies have examined the development of intentional self-regulatory processes across adolescence. The Selection, Optimization, and Compensation (SOC) model by Baltes, Baltes and colleagues (e.g., Baltes 1997; Freund & Baltes, 2002) describes three self-regulatory processes that individuals use to contribute to their own, healthy future by selecting appropriate, achievable goals (S) and by finding ways to reach those goals (O and C). This presentation provides longitudinal information about the development of intentional self-regulation (operationalized through scores for SOC) in adolescence and, as well, provides a cross-cultural comparative assessment of SOC.

The findings are based on two studies. First, data from the 4-H Study of Positive Youth Development will be used to appraise the structure of SOC across much of adolescence among youth in the U.S. Increasing evidence for the tripartite, adult-like structure of SOC was expected across age. The study employs a form of longitudinal sequential design and started with over 1,100 youth (mean age 11.1 years, $SD = 0.53$ years, 47.2% males; see Lerner et al., 2005). Data from the first six waves of measurement were used. In early adolescence (in Grades 5 through 7), a tripartite structure of SOC could not be identified, but support was provided for one, global factor of self-regulation. In middle adolescence (in Grades 8 through 10), the tripartite, adult-like structure of SOC was identified across all three grades, with increased separation of the SOC scales over time (see e.g., Gestsdóttir & Lerner, 2007; Gestsdóttir, Lewin-Bizan, von Eye, Lerner & Lerner, 2009; Zimmerman, Phelps & Lerner, 2007). Second, an evaluation of the structure of SOC among 14 and 18 year old youth in Iceland provides a cross-cultural comparative assessment of SOC in adolescence. The study involved 505 14-year old Icelandic youth (49% males) and 533 18-year old youth (40% males). Among both age groups, preliminary findings did not suggest the presence of a tripartite structure of SOC but, a single, global component, that was mostly comparable to the single factor identified among 11 through 13 year old youth in the U.S., was confirmed (Gestsdóttir, Adalbjarnardóttir & Thorsdóttir, 2010).

The findings suggest that processes of intentional self-regulation may undergo important changes in middle adolescence among youth in the U.S, but that the development of self-regulatory processes may differ significantly depending on cultural context. Further longitudinal studies are needed to examine the development of intentional self-regulatory processes, the role they play in healthy and problematic development, and possible cultural differences in the development and role of self-regulation in adolescence.

Professor Rainer K. Silbereisen, Ph.D.

Institute of Psychology
Friedrich Schiller University of Jena, Germany

**Scientific Career**

1975-77	Postdoctoral Fellow, University of the Saarland, Germany
1977-86	Professor of Educational Psychology, University of Technology, Berlin, Germany
1986-92	Full Professor of Developmental Psychology, Justus Liebig University, Giessen, Germany
1992-94	Full Professor of Human Development and Family Studies, The Pennsylvania State University, University Park, USA
1994-present	Full Professor and Chair of Developmental Psychology, Friedrich Schiller University, Jena, Germany
1995-present	Adjunct Professor of Human Development, The Pennsylvania State University, University Park, USA

Research Interests

Life-span developmental psychology, social and economic change and human development, adjustment and maladjustment in adolescence, migration and acculturation in cross-cultural perspective, development of entrepreneurship, prevention of problem behavior, psychology and social policy

Selected Publications

- Schoon, I. & Silbereisen, R. K. (eds.) (2009). *Transitions from school to work. Globalisation, individualization, and patterns of diversity*. New York: Cambridge University Press.
- Pinquart, M., Silbereisen, R. K. & Koerner, A. (2009). Do associations between perceived work-related demands associated with social change, control strategies, and psychological well-being vary by regional economic conditions? *European Psychologist*, 14, 207-219.
- Tomasik, M. & Silbereisen, R. K. (2009). Demands of social change as a function of the political context, institutional filters, and psychosocial resources. *Social Indicators Research*, 94, 13-28.
- Silbereisen, R. K. & Chen, X. (2010). *Social change and human development: Concepts and results*. Sage: London.
- Tomasik, M., Silbereisen, R. K., & Heckhausen, J. (2010). Is it adaptive to disengage from demands of social change? Adjustment to developmental barriers in opportunity-deprived regions. *Motivation and Emotion*, 34, 384-398.

Adapting to New Challenges of Political Transformation and Globalization: The Role of Engagement and Context

Rainer K. Silbereisen, Martin J. Tomasik

From adolescence onwards, a major player in development is the developing person and their aims: this is particularly true when routine adaptation no longer works due to disruption of the usual pattern of functioning. An example is change to developmental tasks due to radical disturbance in the political/economic landscape, such as the end of the cold war and globalization. My research group and I wanted to learn through which cascades of effects, from macro contexts to micro environments, individuals experience a mismatch between accustomed ways of acting and new demands, how these demands are dealt with, and how far this affects age-typical activities and mental health. We also attempted to demonstrate that transactions on the individual level and their consequences were moderated by contextual constraints and opportunities. Recently, we investigated how new demands on individuals brought about by political transformations in Germany and elsewhere, are typically overlaid by the consequences of globalization. We investigated how people experience demands, such as increasing uncertainty concerning work and career, analyzed how they mastered these demands, and looked at the consequences for psycho-social functioning. Engagement or disengagement concerns how individuals tackle change that impedes age-typical developmental tasks, such as occupational achievement: this can be by direct engagement via high motivational involvement, by attempts to overcome failures by compensating efforts, or by disengagement via submission or blaming others. Our research showed that people are generally active in their approach to the demands of social change, especially if they are protected by adequate personal (self-efficacy) and social resources (interpersonal support), and if the demands appear controllable. All these conditions result in positive adaptation. The alternative is for people to disengage and, although this is usually inappropriate, it may save resources. Most importantly, however, the association between demand loads, engagement/disengagement, and adaptation varied as a function of contextual opportunities. People living in economically weak geographical regions, characterized by features such as outmigration and precarious employment, suffered less from the same level of demands than people living in economically prospering regions. We currently investigate whether this attenuating effect of economically challenged regions can be explained by face-saving causal attributions and downward social comparisons. The active role of the individual in dealing with the challenges of social change will be analyzed in our studies in Germany, but also by the results from collaborative research on similar macro changes in Poland and China.

Professor Alice Schlegel, Ph.D.

Frances McClelland Institute for Children, Youth,
and Families
University of Arizona, Tuscon, USA

**Scientific Career**

1956	B.A. in Anthropology, Northwestern University
1959	M.A. in Anthropology, University of Chicago
1971	Ph.D. in Anthropology, Northwestern University
1980-2005	Associate Professor, Professor, Professor Emerita, University of Arizona
1986-1987	Fulbright Professor, University of Frankfurt am Main
1989	Guest Professor, University of Tübingen
1999	Nehru Chair Visiting Professor, M. S. University of Baroda
2009-present	Research Professor, Frances McClelland Institute of Children, Youth and Families, University of Arizona

Research Interests

Adolescent socialization. Adolescents are socialized for culturally appropriate behavior in adolescence (much of this by peers), and also in preparation for adulthood. I am interested in cultural constants in socialization and their evolutionary basis, and in the cultural variants and the ecological, social, historical, and economic factors that affect them.

Selected Publications

- Schlegel, A. (2011). Adolescent ties to adult communities: The intersection of culture and development. In L.A. Jensen (Ed.), *Bridging cultural and developmental psychology: New syntheses in theory, research, and practice* (pp. 138-157). Oxford: Oxford University Press.
- Schlegel A. (2009). Cross-cultural issues in the study of adolescence. In L. Steinberg and R. M. Lerner (Eds.), *Handbook of adolescent psychology: Vol. 2. Contextual influences on adolescent development* (3rd ed., pp. 570-589). Hoboken, NJ: Wiley.
- Schlegel, A. (2000). The global spread of adolescent culture. In R. Silbereisen and L. Crockett (Eds.), *Negotiating adolescence in times of social change: Cross-national perspectives on developmental process and social intervention* (pp. 71-78). Cambridge, UK: Cambridge University Press.
- Schlegel, A. (1995). Guest Ed. Special issue on adolescence. *Ethos: Journal of the Society for Psychological Anthropology*, 23, no. 1.
- Barry, H., & Schlegel, A. (1991). *Adolescence: An anthropological inquiry*. New York: Free Press.

The Cultural Context of Self-Regulation

Alice Schlegel

Self-regulation has two aspects: (1) the regulation of impulses and (2) planning for the future, which requires regulating present actions in order to advance one's goals. While self-regulation is an internal process, it responds to social settings and develops within a cultural context. There are culturally appropriate goals and the actions necessary to achieve them, and cultural values indicate which emotions are encouraged and how they should be expressed. Children are socialized, explicitly or implicitly, for these behaviors and emotional expressions. However, while cultures have general socialization patterns, specific goals and practices are not necessarily uniform within them, especially in more complex cultures with differences by social class, region, or other features. Within the family, socialization may differ by birth order, especially in cultures that practice primogeniture. Socialization is both for the present, the good child as culturally defined, and for the future, as foreseen by the family and the larger society. Future orientation increases in adolescence, when adolescents also begin to seek their own socialization milieus.

Adolescents, more than children and adults, respond to actors at two different age-stages. Adults usually expect (or hope) that adolescents will be responsible and cooperative and use good judgment by staying out of potentially dangerous situations. Peers, who may hold the same general values as adults, often admire risky behavior and challenge each other for status within the peer group. Impulse control is likely to be greater around adults than other adolescents, so that more time in adult company encourages self-regulation. This also exposes adolescents to a range of role models and possible options for the future, and to adults who might become mentors or confidants and help them plan for their future.

In a cross-cultural study of 186 pre-industrial cultures, Schlegel and Barry (1991) found that for adolescent boys, time spent with adults of the same sex was significantly associated with a cultural expectation that adolescents would engage in anti-social behavior. The relationship was inverse: cultures below the mean for time boys spent with men were more likely to have expectations of anti-social behavior, principally theft and fighting. For girls, there were not enough cases of expected anti-social behavior to test, and there was little variance in the amount of time girls spent with women.

This finding implies that self-regulation is promoted when adolescents are in adult-based settings for more of their time. The United States is off the scale, compared even to some European nations, in excluding adolescents from these settings and restricting them to peer-based ones.

Self-regulation could be promoted by public policies that encourage informal inter-generational contacts, like Germany's apprenticeship system and Vereine (civic organizations).

Professor Jeanne Brooks-Gunn, Ph.D.

Natl. Ctr. For Children and Families
Teachers College
Columbia University, USA



Scientific Career

1975	Ph.D. in Human Learning and Development, University of Pennsylvania
1974-1991	Research Scientist (Senior Scientist, 1983) Educational Testing Service
Since 1991	Marx Professor of Child Development and Education, Columbia University
Since 1997	Scholar, Office of Population Research on Child Well-Being, Princeton Univ.
Since 1998	Founding Director, Columbia University Institute on Child and Family Policy
2001-present	Professor of Pediatrics, College of Physicians and Surgeons, Columbia University

Research Interests

Policy-oriented research focusing on family and community influences
Intervention design and evaluation
Biological transitions in childhood, adolescence, and adulthood

Selected Publications

- Gardner, M., & Brooks-Gunn, J. (2009). Adolescents' exposure to community violence: Are neighborhood youth organizations protective? *Journal of Community Psychology*, 37, 505-525.
- Gardner, M., Roth, J., & Brooks-Gunn, J. (2008). Adolescents' participation in organized activities and developmental success two and eight years after high school: Do sponsorship, duration, and intensity matter? *Developmental Psychology*, 44, 814-830.
- Rouse, C. E., Brooks-Gunn, J., & McLanahan, S. (Eds.). (2005). School Readiness: Closing Racial and Ethnic Gaps. The Future of Children (Volume 15). www.futureofchildren.org
- Browning, C., Leventhal, T., & Brooks-Gunn, J. (2005). Sexual initiation in early adolescence: The nexus of parental and community control. *American Sociological Review*, 70, 758-778.
- Brooks-Gunn, J., Fuligni, A. S., & Berlin, L. J. (2003). Early child development in the 21st Century: Profiles of current research initiatives. New York, NY: Teachers College, Columbia University.



Professor John R. Weisz, Ph.D.

Department of Psychology
Harvard University, Cambridge, USA



Scientific Career

1967	B.A., Mississippi College
1968-1971	U.S. Peace Corps, Nairobi, Kenya
1975	Ph.D., Yale University
1975-1978	Assistant Professor, Cornell University
1978-1990	Assistant to Associate to Professor, University of North Carolina at Chapel Hill
1990-2005	Professor, University of California at Los Angeles
2005-present	Professor, Harvard University

Research Interests

Treatment of mental health problems in children and adolescents
Development of dysfunction and mental disorder in children and adolescents
Control-related beliefs and coping by children and adolescents

Selected Publications

- Weisz, J.R., Chorpita, B.F., Frye, A., Ng, M.Y., Lau, N., Bearman, S.K., et al. (in press). Youth top problems: Using idiographic, consumer-guided assessment to identify treatment needs and track change during psychotherapy. *Journal of Consulting and Clinical Psychology*.
- Weisz, J.R., Doss, A.J., & Hawley, K.M. (2006). Evidence-based youth psychotherapies versus usual clinical care: A meta-analysis of direct comparisons. *American Psychologist*, 61, 671-689.
- Weisz, J.R., Jensen Doss, A.J., & Hawley, K.M. (2005). Youth psychotherapy outcome research: a review and critique of the evidence base. *Annual Review of Psychology*, 56, 337-363.
- Weisz, J.R. (2004). *Psychotherapy for children and adolescents: Evidence-based treatments and case examples*. Cambridge, UK: Cambridge University Press.
- Weisz, J.R., Weiss, B., Han, S., Granger, D.A., & Morton, T. (1995). Effects of psychotherapy with children and adolescents revisited: A meta-analysis of treatment outcome studies. *Psychological Bulletin*, 117, 450-468.

Promoting Youth Self-Regulation through Psychotherapy: Redesigning Treatments to Fit Complex Kids in Clinical Care

John R. Weisz

Five decades of research have produced scores of empirically tested treatments to enhance self-regulation and adaptation in youths who have mental health problems and disorders. These *evidence-based treatments* (EBTs), most focused on single disorders or problem domains (e.g., depressive disorders), have shown respectable effects in randomized controlled efficacy trials in which treatment conditions are optimized for research. However, the EBTs do not fare so well when compared to usual clinical care with clinically referred youths treated in everyday practice conditions. One reason may be that referred youths are often more complex than the treatments designed to help them. Most youths referred for treatment have multiple problems and disorders, and their treatment needs shift over time. To address this challenge, our group has developed an agile, transdiagnostic intervention approach, the Child STEPs Treatment Model. STEPs uses a modular treatment protocol derived from the psychotherapy evidence base and guided by decision flowcharts. Navigation through treatment is informed by a web-based system that monitors each youth's treatment response week-by-week. A multisite randomized trial of this system, applied to youths with anxiety, depression, and conduct problems, showed that STEPs outperformed both usual clinical care and standard EBTs, on measures of youth self-regulation and adaptation and—importantly—on clinician ratings of satisfaction with the treatment provided. The STEPs approach may provide a bridge linking the rich evidence base of clinical science to the complexity of referred youths in everyday clinical care.

Professor Alexander Grob, Ph.D.

Pers. and Dev. Psychology
University of Basel, Switzerland



Scientific Career

1984	M.A. in Psychology, University of Fribourg
1990	Ph.D., University of Bern
1997	Habilitation in Psychology, University of Bern
1997-1998	Senior Fellow, University of Illinois at Urbana –Champaign, IL
1999	Assistant Professor, University of Basel
1999-2001	Associate Professor for Developmental and Educational Psychology, University of Bonn
2001-2005	Full Professor for Personality and Individual Differences, University of Bern
2005-present	Full Professor for Personality and Developmental Psychology, University of Basel
2011-present	National Research Councilor SNSF (Targeted Research)

Research Interests

Personality development across the life-span
Developmental diagnostics
Early risks and later achievement
Developmental interventions

Selected Publications

- Bielinski-Blattmann, D., Lemola, S., Jaussi, C., Stadlmayr, W., & Grob, A. (2009). Postpartum depression in the first 17 months after childbirth. *International Journal of Public Health, 54*, 333-339.
- Grob, A., Meyer, C.S., & Hagmann-von Arx, P. (2009). *Intelligence and Development Scales (IDS). Intelligenz- und Entwicklungsskalen für Kinder von 5-10 Jahren*. Manual and Testset. Bern: Huber.
- Lemola, S., Stadlmayr, W., & Grob, A. (2007). Maternal adjustment five months after birth: The impact of the subjective experience of childbirth and emotional support from the partner. *Journal of Reproductive and Infant Psychology, 25*, 190-202.
- Lucas R.E., Diener E., Grob A., et al. (2000). Cross-cultural evidence for the fundamental features of extraversion. *JPSP, 79*, 452-468
- Grob, A., Krings, F., & Bangerter, A. (2001). Life markers in biographical narratives of people from three cohorts: A life span perspective in its historical context. *Human Development, 44*, 171-190.
- Grob, A., Little, T.D., Wanner, B., et al. (1996). Adolescents' well-being and perceived control across fourteen sociocultural contexts. *JPSP, 71*, 785-795.



Professor Ronald E. Dahl, M.D.

Department of Public Health
University of California, Berkeley, USA



Scientific Career

1979	B.S. in Biophysics, Pennsylvania State University
1979	B.A. in Liberal Arts, Pennsylvania State University
1984	M.D. in Medicine, University of Pittsburgh
1987-2010	Assistant to Full Professor, Psychiatry and Pediatrics, University of Pittsburgh School of Medicine
2006-2010	Professor, Psychology University of Pittsburgh, School of Arts and Sciences
2010-present	Professor, Community Health & Human Development, University of California, Berkeley

Research Interests

Development of sleep/arousal and affect regulation across childhood and adolescence;
Adolescent brain development;
Interdisciplinary developmental research to inform early intervention and prevention

Selected Publications

- Forbes, E. E., & Dahl, R. E. (2010). Pubertal Development and Behavior: Hormonal Activation of Social and Motivational Tendencies. *Brain and Cognition*, 72 (1), 66-72.
- Quevedo, K., Benning, S., Gunnar, M., & Dahl, R. (2009). The onset of puberty: effects on the psychophysiology of emotion and motivation. *Development and Psychopathology*, 21 (1), 27-45.
- Dahl, R. E. (2008). Biological, Developmental, and Neurobehavioral Factors Relevant to Adolescent Driving Risks. *American Journal of Preventive Medicine*, 35 (3), S278-S284.
- Forbes, E.E., & Dahl, R.E. (2005). Neural Systems of Positive Affect: Relevance to Understanding Child and Adolescent Depression? *Development and Psychopathology*, 17 (3), 827-850.
- Dahl, R. E. (1996). The Regulation of Sleep and Arousal: Development and Psychopathology. *Development and Psychopathology*, 8 (1), 3-27.

Oskar G. Jenni, M.D.

Child Development Center
Department of Pediatrics
University Children's Hospital Zurich, Switzerland

**Scientific Career**

1994	M.D., Medical Faculty, University of Zurich
2002	Board Certification in Pediatrics, Bern, Switzerland
2005	Board Certification in Sleep Medicine, Bern, Switzerland
2010	Board Certification in Developmental Pediatrics (available since 2010)
2005-present	Director, Child Development Center; Director, Division of Speech and Communication Disorders; Director, Pediatric Sleep Disorders Center; Director, Division of Epidemiology and Outcome, Children's Research Center Zurich, University Children's Hospital Zurich, Switzerland

Research Interests

Normal and abnormal sleep behavior, neuromotor and cognitive development from childhood through adolescence

Selected Publications

- Jenni, O. G., Aziz, C., Thoeni, I., Diezi, M., Werner, H., Caflisch, J., & Rousson, V. (in press). Intra-individual stability of neuromotor tasks from 6 to 18 years: a longitudinal study. *Human Movement Science*.
- Geiger, A., Achermann, P., & Jenni, O. G. (2010). Sleep, intelligence and cognition in a developmental context: differentiation between traits and state-dependent aspects. *Prog Brain Res*, 185, 167-79.
- Kurth, S., Ringli, M., Geiger, A., LeBourgeois, M., Jenni, O.G., & Huber, R. (2010). Mapping of cortical activity in the first 2 decades of life: a high-density sleep EEG study. *Journal of Neuroscience*, 6, 30 (40), 13211-9.
- Jenni, O. G., Achermann, P., & Carskadon, M.A. (2005). Homeostatic sleep regulation in adolescents. *Sleep*, 28 (11), 1446-1454.
- Jenni, O. G., & Zinggeler Fuhrer, H., Iglowstein, I., Molinari, L., & Largo R.H. (2005). A longitudinal study about bedsharing and sleep problems among Swiss children in the first 10 years of life. *Pediatrics*, 115, 233-240.
- Jenni, O. G., & O'Connor, B. (2005). Children's sleep: interplay between culture and biology. *Pediatrics*, 115, 204-216.

