

Volume 31 Issue 3

August 2019

ISSN: 0954-5794

# DEVELOPMENT AND PSYCHOPATHOLOGY

*Dante Cicchetti*  
Editor

SPECIAL ISSUE

*Emotion Dysregulation and Emerging Psychopathology*

*Theodore P. Beauchaine*  
*Dante Cicchetti*  
Editors

**CAMBRIDGE**  
UNIVERSITY PRESS

**Editor****Dante Cicchetti***Institute of Child Development, University of Minnesota***Associate Editors**

**Theodore P. Beauchaine**, *Ohio State University, USA*; **Patrick Davies**, *University of Rochester, USA*; **Stephen Hinshaw**, *University of California, Berkeley, USA*; **Suniya Luthar**, *Arizona State University, USA*; **David Magnusson**, *University of Stockholm, Sweden*; **Ann S. Masten**, *Institute of Child Development, University of Minnesota, USA*; **Fred A. Rogosch**, *Mt. Hope Family Center, University of Rochester, USA*; **Michael Rutter**, *Institute of Psychiatry, London, UK*; **Ronald Seifer**, *Brown University, USA*; **Daniel Shaw**, *University of Pittsburgh, USA*; **L. Alan Sroufe**, *Institute of Child Development, University of Minnesota, USA*; **Melissa L. Sturge-Apple**, *Mt. Hope Family Center, University of Rochester, USA*; **Sheree L. Toth**, *Mt. Hope Family Center, University of Rochester, USA*; **Elaine Walker**, *Emory University, USA*

**Editorial Board**

**Lenneke Alink**, *Leiden University, The Netherlands*; **Marian Bakersman-Krandenberg**, *Leiden University, The Netherlands*; **Carrie E. Bearden**, *University of California, Los Angeles, USA*; **Marjorie Beeghly**, *Children's Hospital, Boston & Wayne State University, USA*; **Jay Belsky**, *University of California, Davis, USA*; **Jacob Burack**, *McGill University, Canada*; **Keith Burt**, *University of Vermont, USA*; **Nicole Bush**, *University of California, San Francisco, USA*; **Susan Calkins**, *University of North Carolina, Greensboro, USA*; **Susan Campbell**, *University of Pittsburgh, USA*; **Tyrone Cannon**, *Yale University, USA*; **Laurie Chassin**, *Arizona State University, USA*; **E. Jane Costello**, *Duke University Medical Center, USA*; **Michael DeBellis**, *Duke University Medical Center, USA*; **Jean Decety**, *University of Chicago, USA*; **Colin G. DeYoung**, *University of Minnesota, USA*; **Jenalee Doom**, *Denver University, USA*; **Colleen Doyle**, *Institute of Child Development, University of Minnesota, USA*; **Mary Dozier**, *University of Delaware, USA*; **Katie Ehrlich**, *University of Georgia, USA*; **Inge-Marie Eigsti**, *University of Connecticut, USA*; **Nancy Eisenberg**, *Arizona State University, USA*; **Peter Fonagy**, *Menninger Clinic, USA and University College, London, UK*; **Cynthia Garcia Coll**, *Carlos Albizu University, Puerto Rico*; **Elena L. Grigorenko**, *University of Houston, USA*; **Elizabeth Handley**, *Mt. Hope Family Center, University of Rochester, USA*; **Benjamin L. Hankin**, *University of Illinois, Urbana-Champaign, USA*; **Nicholas Ialongo**, *Johns Hopkins University, USA*; **Camelia Hostinar**, *University of California, Davis, USA*; **Sara Jaffee**, *University of Pennsylvania, USA*; **Mark Johnson**, *Birkbeck College, London, UK*; **Canan Karatekin**, *Institute of Child Development, University of Minnesota, USA*; **Jungmeen Kim-Spoon**, *Virginia Tech, USA*; **Julia Kim-Cohen**, *University of Illinois, Chicago, USA*; **Bonnie Klimes-Dougan**, *University of Minnesota, USA*; **Jennifer Lansford**, *Duke University, USA*; **Mark Lenzenweger**, *SUNY Binghamton, USA*; **Leslie Leve**, *University of Oregon, USA*; **Alicia Lieberman**, *San Francisco General Hospital, USA*; **Sonia Lupien**, *McGill University, Canada*; **Michael Lynch**, *SUNY Geneseo, USA*; **Jenny Macfie**, *University of Tennessee, USA*; **Jody Todd Manly**, *Mt. Hope Family Center, University of Rochester, USA*; **Peter J. Marshall**, *Temple University, USA*; **Erin B. McClure-Tone**, *Georgia State University, USA*; **Kate McLaughlin**, *Harvard University, USA*; **Ellen Moss**, *Université du Québec à Montréal, Canada*; **Eun Young Mun**, *University of North Texas, USA*; **Dianna Murray-Close**, *University of Vermont, USA*; **Angela Narayan**, *Denver University, USA*; **Misaki N. Natsuaki**, *University of California, Riverside, USA*; **Joel Nigg**, *Oregon Health and Science University, USA*; **Jennie G. Noll**, *Pennsylvania State University, USA*; **Thomas G. O'Connor**, *University of Rochester, USA*; **Assaf Oshri**, *University of Georgia, USA*; **Daniel Pine**, *National Institute of Mental Health, USA*; **Robert Plomin**, *Institute of Psychiatry, London, UK*; **Seth Pollak**, *University of Wisconsin, Madison, UK*; **Michael Posner**, *University of Oregon, USA*; **Robert M. Post**, *Bipolar Collaborative Network, USA*; **Sally J. Rogers**, *University of California, Davis, USA*; **Glenn Roisman**, *Institute of Child Development, University of Minnesota, USA*; **Isabelle M. Rosso**, *Harvard University, USA*; **Tania Roth**, *University of Delaware, USA*; **Mary K. Rothbart**, *University of Oregon, USA*; **Karen Rudolph**, *University of Illinois at Urbana-Champaign, USA*; **Richard Ryan**, *University of Rochester, USA & Australian Catholic University, Australia*; **Jessica E. Salvatore**, *Virginia Commonwealth University, USA*; **M. Mar Sanchez**, *Emory University, USA*; **John Schulenberg**, *University of Michigan, USA*; **Margaret Sheridan**, *University of Chicago, USA*; **Elizabeth A. Shirlcliff**, *Iowa State University, USA*; **Margaret Beale Spencer**, *University of Chicago, USA*; **Lisa Starr**, *University of Rochester, USA*; **Eric Thibodeau**, *University of Minnesota, USA*; **Kathleen M. Thomas**, *Institute of Child Development, University of Minnesota, USA*; **Don Tucker**, *University of Oregon, USA*; **Audrey R. Tyrka**, *Brown University, USA*; **Kristin Valentino**, *University of Notre Dame, USA*; **Brian Vaughn**, *Auburn University, USA*; **Helena Verdelli**, *Teachers College, Columbia University, USA*; **Irwin Waldman**, *Emory University, USA*; **Philip D. Zelazo**, *Institute of Child Development, University of Minnesota, USA*; **Robert Zucker**, *University of Michigan, USA*

**Editorial Board Members in Memoriam:** *Dennis P. Cantwell, Donald J. Cohen, Nicki R. Crick, Doug Derryberry, Thomas J. Dishion, Norman Garmezzy, Xiaojia Ge, Robert Harmon, Stuart Hauser, Marian Radke-Yarrow, Lee Robins, James Snyder*

**Aims and Scope:** *Development and Psychopathology* is an international multidisciplinary journal devoted to the publication of original empirical, theoretical, and review articles on the interrelationship of normal and pathological development in children and adults.

**Editorial Office:** Institute of Child Development, University of Minnesota, 51 East River Parkway, Minneapolis, MN 55455. Telephone: 612-625-5213. E-mail: devpsychopathol@umn.edu

**Assistant to Editor:** Karlyn Wegmann, University of Minnesota

**Publishing, Production, and Advertising Office:** Cambridge University Press, One Liberty Plaza, New York, NY 10006.

**Subscription Offices:** (for USA, Canada, and Mexico) Cambridge University Press, One Liberty Plaza, New York, NY 10006; (for UK and elsewhere) Cambridge University Press, University Printing House, Shaftesbury Road, Cambridge CB2 8BS, UK.

**2018 Subscription Information:** *Development and Psychopathology* (ISSN 0954-5794) is published five times per year by Cambridge University Press, One Liberty Plaza, New York, NY 10006, USA/Cambridge University Press, University Printing House, Shaftesbury Road, Cambridge CB2 8BS, UK. Annual subscription rates: Institutions print and electronic: US \$1095 in the USA, Canada, and Mexico; UK £604 + VAT elsewhere. Institutions electronic only: US \$810 in the USA, Canada, and Mexico; UK £449 + VAT elsewhere. Individuals print and electronic: US \$272 in the USA, Canada, and Mexico; UK £146 + VAT elsewhere. Individuals electronic only: US \$216 in the USA, Canada, and Mexico; UK £120 + VAT elsewhere. Single Part: US \$240 in the USA, Canada, and Mexico; UK £132 + VAT elsewhere. Prices include postage and insurance. Airmail or registered mail is extra. Back volume prices are available upon request.

**Institutional Subscribers:** Information on *Development and Psychopathology* and all other Cambridge journals is available at the Cambridge Journals Online website via <http://www.journals.cambridge.org>

**Indexing:** This journal is covered in *Child Development Abstracts & Bibliography*, *Current Contents/Social & Behavioral Sciences*, *Social Sciences Citation Index*, *Index Medicus*, and *MEDLINE*.

© Cambridge University Press 2019. All rights reserved. No part of this publication may be reproduced, in any form or by any means, electronic, photocopy, or otherwise, without permission in writing from Cambridge University Press. For further information see <http://us.cambridge.org/information/rights> or <http://www.cambridge.org/uk/information/rights>

**Photocopying Information (for USA only):** The Item-Fee Code for this publication (0954-5794/18) indicates that copying for internal or personal use beyond that permitted by Sec. 107 or 108 of the US Copyright Law is authorized for users duly registered with the Copyright Clearance Center (CCC), provided that the appropriate remittance per article is paid directly to: CCC, 222 Rosewood Drive, Danvers, MA 01923. Specific written permission must be obtained for all other copying; contact the nearest Cambridge University Press office. Contact the *ISI Tearsheet Service*, 3501 Market Street, Philadelphia, PA 19104, for single copies of separate articles.

Periodicals postage is paid at New York, NY, and additional mailing offices. POSTMASTER: Send address changes in the USA, Canada, and Mexico to: *Development and Psychopathology*, Cambridge University Press, One Liberty Plaza, New York, NY 10006.

Printed in the United States of America.

---

---

# DEVELOPMENT AND PSYCHOPATHOLOGY

---

VOLUME 31

AUGUST 2019

NUMBER 3

**SPECIAL ISSUE**

*Emotion Dysregulation and Emerging  
Psychopathology*

THEODORE P. BEAUCHAINE  
DANTE CICCETTI

EDITORS

 **CAMBRIDGE**  
UNIVERSITY PRESS

---

# DEVELOPMENT AND PSYCHOPATHOLOGY

---

Volume 31

August 2019

Number 3

## CONTENTS

### *Special Issue: Emotion Dysregulation and Emerging Psychopathology*

#### *Special Issue Editorial*

- THEODORE P. BEAUCHAINE 799  
AND DANTE CICCETTI  
Emotion dysregulation and emerging  
psychopathology: A transdiagnostic,  
transdisciplinary perspective

#### *Special Issue Articles*

- ROSS A. THOMPSON 805  
Emotion dysregulation: A theme in search of  
definition
- BETTY LIN, PARISA R. KALIUSH, 817  
ELISABETH CONRADT, SARAH TERRELL,  
DYLAN NEFF, ASHLEY K. ALLEN,  
MARCELA C. SMID, CATHERINE MONK,  
AND SHEILA E. CROWELL  
Intergenerational transmission of emotion  
dysregulation: Part I. Psychopathology, self-injury,  
and parasympathetic responsivity among pregnant  
women
- BRENDAN D. OSTLUND, 833  
ROBERT D. VLISIDES-HENRY,  
SHEILA E. CROWELL, K. LEE RABY,  
SARAH TERRELL, MINDY A. BROWN,  
RUBEN TINAJERO, NILA SHAKIBA,  
CATHERINE MONK, JULIE H. SHAKIB,  
KAREN F. BUCHI,  
AND ELISABETH CONRADT  
Intergenerational transmission of emotion  
dysregulation: Part II. Developmental origins of  
newborn neurobehavior
- HELEN M. MILOJEVICH, 847  
KATE E. NORWALK,  
AND MARGARET A. SHERIDAN  
Deprivation and threat, emotion dysregulation, and  
psychopathology: Concurrent and longitudinal  
associations
- ELISE M. CARDINALE, ANNI R. SUBAR, 859  
MELISSA A. BROTMAN,  
ELLEN LEIBENLUFT,  
KATHARINA KIRCANSKI,  
AND DANIEL S. PINE  
Inhibitory control and emotion dysregulation: A  
framework for research on anxiety

- NATHANIEL HAINES, ZIV BELL,  
SHEILA CROWELL, HUNTER HAHN,  
DANA KAMARA,  
HEATHER McDONOUGH-CAPLAN,  
TIFFANY SHADER,  
AND THEODORE P. BEAUCHAINE
- 871 Using automated computer vision and machine learning to code facial expressions of affect and arousal: Implications for emotion dysregulation research
- ALISON E. HIPWELL, IRENE TUNG,  
JESSIE NORTHRUP, AND KATE KEENAN
- 887 Transgenerational associations between maternal childhood stress exposure and profiles of infant emotional reactivity
- DAVID G. WEISSMAN, DEBBIE BITRAN,  
ADAM BRYANT MILLER,  
JONATHAN D. SCHAEFER,  
MARGARET A. SHERIDAN,  
AND KATIE A. McLAUGHLIN
- 899 Difficulties with emotion regulation as a transdiagnostic mechanism linking child maltreatment with the emergence of psychopathology
- ELISE M. CARDINALE,  
KATHARINA KIRCANSKI, JULIA BROOKS,  
ANDREA L. GOLD, KENNETH E. TOWBIN,  
DANIEL S. PINE, ELLEN LEIBENLUFT,  
AND MELISSA A. BROTMAN
- 917 Parsing neurodevelopmental features of irritability and anxiety: Replication and validation of a latent variable approach
- EMILY NEUHAUS, SARA J. WEBB,  
AND RAPHAEL A. BERNIER
- 931 Linking social motivation with social skill: The role of emotion dysregulation in autism spectrum disorder
- GUY ROTH, MAARTEN VANSTEENKISTE,  
AND RICHARD M. RYAN
- 945 Integrative emotion regulation: Process and development from a self-determination theory perspective
- SUSAN D. CALKINS, JESSICA M. DOLLAR,  
AND LAURIE WIDEMAN
- 957 Temperamental vulnerability to emotion dysregulation and risk for mental and physical health challenges
- XIAOXUE FU, ERIC E. NELSON,  
MARCELA BORGE, KRISTIN A. BUSS,  
AND KORALY PÉREZ-EDGAR
- 971 Stationary and ambulatory attention patterns are differentially associated with early temperamental risk for socioemotional problems: Preliminary evidence from a multimodal eye-tracking investigation
- LAURA ALICIA ALBA, JESSICA FLANNERY,  
MOR SHAPIRO, AND NIM TOTTENHAM
- 989 Working memory moderates the association between early institutional care and separation anxiety symptoms in late childhood and adolescence

- MOLLY ADRIAN, JESSICA L. JENNESS,  
KEVIN S. KUEHN, MICHELE R. SMITH,  
AND KATIE A. MCCLAUGHLIN
- 999 Emotion regulation processes linking peer victimization to anxiety and depression symptoms in adolescence
- KATHARINA KIRCANSKI,  
LUCINDA M. SISK, TIFFANY C. HO,  
KATHRYN L. HUMPHREYS, LUCY S. KING,  
NATALIE L. COLICH, SARAH J. ORDAZ,  
AND IAN H. GOTLIB
- 1011 Early life stress, cortisol, frontolimbic connectivity, and depressive symptoms during puberty
- MARIE-LOTTE VAN BEVEREN,  
SVEN C. MUELLER, AND CAROLINE BRAET
- 1023 Emotion dysregulation, temperamental vulnerability, and parental depression in adolescents: Correspondence between physiological and informant-report measures
- AKUA F. NIMARKO, AMY S. GARRETT,  
GABRIELLE A. CARLSON,  
AND MANPREET K. SINGH
- 1037 Neural correlates of emotion processing predict resilience in youth at familial risk for mood disorders
- JAMIE L. HANSON, W. DUSTIN ALBERT,  
ANN T. SKINNER, SHUTIAN H. SHEN,  
KENNETH A. DODGE,  
AND JENNIFER E. LANSFORD
- 1053 Resting state coupling between the amygdala and ventromedial prefrontal cortex is related to household income in childhood and indexes future psychological vulnerability to stress
- ALECIA C. VOGEL, JOSHUA J. JACKSON,  
DEANNA M. BARCH, REBECCA TILLMAN,  
AND JOAN L. LUBY
- 1067 Excitability and irritability in preschoolers predicts later psychopathology: The importance of positive and negative emotion dysregulation
- MERAV H. SILVERMAN, SYLIA WILSON,  
IAN S. RAMSAY, RUSKIN H. HUNT,  
KATHLEEN M. THOMAS,  
ROBERT F. KRUEGER,  
AND WILLIAM G. IACONO
- 1085 Trait neuroticism and emotion neurocircuitry: Functional magnetic resonance imaging evidence for a failure in emotion regulation
- ERIC L. GARLAND, SARAH E. REESE,  
CARTER E. BEDFORD,  
AND ANNE K. BAKER
- 1101 Adverse childhood experiences predict autonomic indices of emotion dysregulation and negative emotional cue-elicited craving among female opioid-treated chronic pain patients
- PATRICK T. DAVIES, JOANNA K. PEARSON,  
DANTE CICCETTI,  
MEREDITH J. MARTIN,  
AND E. MARK CUMMINGS
- 1111 Emotional insecurity as a mediator of the moderating role of dopamine genes in the association between interparental conflict and youth externalizing problems

- DAVID G. WEISSMAN,  
AMANDA E. GUYER, EMILIO FERRER,  
RICHARD W. ROBINS,  
AND PAUL D. HASTINGS
- 1127 Tuning of brain–autonomic coupling by prior threat exposure: Implications for internalizing problems in Mexican-origin adolescents
- ALEXANDER L. CHAPMAN
- 1143 Borderline personality disorder and emotion dysregulation
- SARAH E. PAUL, MICHAEL J. BOUDREAUX,  
ERIN BONDY, JENNIFER L. TACKETT,  
THOMAS F. OLTMANN,  
AND RYAN BOGDAN
- 1157 The intergenerational transmission of childhood maltreatment: Nonspecificity of maltreatment type and associations with borderline personality pathology
- DANIEL BERRY, ALYSSA R. PALMER,  
REBECCA DISTEFANO,  
AND ANN S. MASTEN
- 1173 Autonomic complexity and emotion (dys-)regulation in early childhood across high- and low-risk contexts
- PAMELA M. COLE,  
K. ASHANA RAMSOOK, AND NILAM RAM
- 1191 Emotion dysregulation as a dynamic process