

DEVELOPMENT AND PSYCHOPATHOLOGY

Dante Cicchetti

Editor

SPECIAL ISSUE

*Applying RDoC-Informed Approaches to the Study of
Development and Psychopathology*

Elisabeth Conradt

Sheila E. Crowell

Dante Cicchetti

Editors

CAMBRIDGE
UNIVERSITY PRESS

DEVELOPMENT AND PSYCHOPATHOLOGY

ISSN 0954-5794

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; Katie McLaughlin, Harvard University, 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 Bakeman-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; Daniel Berry, Institute of Child Development, University of Minnesota, 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; Leah D. Doane, Arizona State University; Colin G. DeYoung, University of Minnesota, USA; Jenalee Doorn, 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; 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; Nicole Perry, University of Texas, Austin, 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 North Carolina, Chapel Hill, USA; Elizabeth A. Shirtcliff, Iowa State University, USA; Margaret Beale Spencer, University of Chicago, USA; Lisa Starr, University of Rochester, USA; Eric Thibodeau, University of Minnesota, USA; Katheen 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 Verdeli, Teachers College, Columbia University, USA; Irwin Waldman, Emory University, USA; Theodore E. A. Waters, New York University, Abu Dhabi; Sylia Wilson, Institute of Child Development, University of Minnesota, 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 Garmezy, Xiaojia Ge, Robert Harmon, Stuart Hauser, Marian Radke-Yarrow, Lee Robins, Fred A. Rogosch, 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.

2021 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 \$1185 in the USA, Canada, and Mexico; UK £655 + VAT elsewhere. Institutions electronic only: US \$877 in the USA, Canada, and Mexico; UK £487 + VAT elsewhere. Individuals print and electronic: US \$295 in the USA, Canada, and Mexico; UK £159 + VAT elsewhere. Individuals electronic only: US \$234 in the USA, Canada, and Mexico; UK £130 + VAT elsewhere. Single Part: US \$273.00 in the USA, Canada, and Mexico; UK £151.00 + 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 2021. 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 33

DECEMBER 2021

NUMBER 5

SPECIAL ISSUE

Applying RDoC-Informed Approaches to the Study of Development and Psychopathology

ELISABETH CONRADT
SHEILA E. CROWELL
DANTE CICCHETTI

EDITORS



DEVELOPMENT AND PSYCHOPATHOLOGY

Volume 33

December 2021

Number 5

CONTENTS

Special Issue: Applying RDoC-Informed Approaches to the Study of Development and Psychopathology

Special Issue Editorial

ELISABETH CONRADT, SHEILA E. CROWELL,
AND DANTE CICCHETTI

- 1521** Using development and psychopathology principles to inform the Research Domain Criteria (RDoC) framework

Special Issue Articles

CATHERINE H. DEMERS,
MARIA M. BAGONIS, KHALID AL-ALI,
SARAH E. GARCIA, MARTIN A. STYNER,
JOHN H. GILMORE, M. CAMILLE HOFFMAN,
BENJAMIN L. HANKIN,
AND ELYSIA POGGI DAVIS

JANET A. DiPIETRO, KATIE T. KIVLIGHAN,
KRISTIN M. VOEGTLINE,
KATHLEEN A. COSTIGAN,
AND GINGER A. MOORE

MENGYU (MIRANDA) GAO,
BRENDAN OSTLUND, MINDY A. BROWN,
PARISA R. KALIUSH, SARAH TERRELL,
ROBERT D. VLISIDES-HENRY, K. LEE RABY,
SHEILA E. CROWELL,
AND ELISABETH CONRADT

BRENDAN D. OSTLUND,
KORALY E. PÉREZ-EDGAR,
SHANNON SHISLER, SARAH TERRELL,
STEPHANIE GODLESKI, PAMELA SCHUETZE,
AND RINA D. EIDEN

BRENDAN OSTLUND, SARAH MYRUSKI,
KRISTIN BUSS, AND KORALY E. PÉREZ-EDGAR

- 1526** Exposure to prenatal maternal distress and infant white matter neurodevelopment

- 1539** It takes two: An antenatal to postnatal RDoC framework for investigating the origins of maternal attachment and mother–infant social communication

- 1554** Prenatal maternal transdiagnostic, RDoC-informed predictors of newborn neurobehavior: Differences by sex

- 1566** Prenatal substance exposure and maternal hostility from pregnancy to toddlerhood: Associations with temperament profiles at 16 months of age

- 1584** The centrality of temperament to the research domain criteria (RDoC): The earliest building blocks of psychopathology

- JENALEE R. DOOM, MICHELLE ROZENMAN,
KATHRYN R. FOX, TIFFANY PHU,
ANNI R. SUBAR, DEBORAH SEOK,
AND KENIA M. RIVERA
- ELANA SCHETTINI, SYLIA WILSON,
AND THEODORE P. BEAUCHAINE
- T.G. VARGAS AND V.A. MITTAL
- LUCY S. KING, VIRGINIA C. SALO,
AUTUMN KUJAWA,
AND KATHRYN L. HUMPHREYS
- LEIGHA A. MACNEILL, NORRINA B. ALLEN,
ROSHAYE B. POLEON, TERESA VARGAS,
K. JUSTON OSBORNE,
KATHERINE S. F. DAMME,
DEANNA M. BARCH,
SHEILA KROGH-JESPERSEN,
ASHLEY N. NIELSEN, ELIZABETH S. NORTON,
CHRISTOPHER D. SMYSER,
CYNTHIA E. ROGERS, JOAN L. LUBY,
VIJAY A. MITTAL,
AND LAUREN S. WAKSCHLAG
- SIHONG LIU, PHILIP A. FISHER,
LISA J. SCHLUETER, TIFFANY PHU,
MEGAN R. GUNNAR,
AND SARAH E. WATAMURA
- CATHERINE R. GLENN, EVAN M. KLEIMAN,
JACLYN C. KEARNS, ANNE E. BOATMAN,
YEATES CONWELL, LINDA J. ALPERT-GILLIS,
AND WILFRED PIGEON
- ALECIA C. VOGEL, REBECCA TILLMAN,
NOURHAN M. EL-SAYED,
JOSHUA J. JACKSON, SUSAN B. PERLMAN,
DEANNA M. BARCH, AND JOAN L. LUBY
- 1599** The transdiagnostic origins of anxiety and depression during the pediatric period: Linking NIMH research domain criteria (RDoC) constructs to ecological systems
- 1620** Internalizing–externalizing comorbidity and regional brain volumes in the ABCD study
- 1634** Testing whether implicit emotion regulation mediates the association between discrimination and symptoms of psychopathology in late childhood: An RDoC perspective
- 1648** Advancing the RDoC initiative through the assessment of caregiver social processes
- 1665** Translating RDoC to real-world impact in developmental psychopathology: A neurodevelopmental framework for application of mental health risk calculators
- 1685** A brief video-coaching intervention buffers young children's vulnerability to the impact of caregivers' depressive symptoms: Examination of differential susceptibility
- 1701** Sleep problems predict next-day suicidal thinking among adolescents: A multimodal real-time monitoring study following discharge from acute psychiatric care
- 1722** Trajectory of emotion dysregulation in positive and negative affect across childhood predicts adolescent emotion dysregulation and overall functioning

- REUT NAIM, ASHLEY SMITH,
AMANDA CHUE, HANNAH GRASSIE,
JULIA LINKE, KELLY DOMBEK,
SHANNON SHAUGHNESSY, CHERI MCNEIL,
ELISE CARDINALE, COURTNEY AGORSOR,
SOFIA CARDENAS, JULIA BROOKS,
ANNI R. SUBAR, EMILY L. JONES,
QUYEN B. DO, DANIEL S. PINE,
ELLEN LEIBENLUFT, MELISSA A. BROTMAN,
AND KATHARINA KIRCANSKI
- SAMANTHA M. BROWN,
ERIKA LUNKENHEIMER,
MONIQUE LABOURGEAIS,
AND KERI HEILMAN
- KRISTEN L. RUDD, DANIELLE S. ROUBINOV,
KAREN JONES-MASON, ABBEY ALKON,
AND NICOLE R. BUSH
- ZEYNEP BAŞGÖZE, SALAHUDEEN A. MIRZA,
THANHARAT SILAMONGKOL, DAWSON HILL,
CONNER FALKE, MICHELLE THAI,
MELINDA WESTLUND SCHREINER,
ANNA M. PARENTEAU,
DONOVAN J. ROEDIGER,
TIMOTHY J. HENDRICKSON,
BRYON A. MUELLER, MARK B. FIECAS,
BONNIE KLIMES-DOUGAN,
AND KATHRYN R. CULLEN
- MELODY R. ALTSCHULER
AND ROBERT F. KRUEGER
- SARAH L. KARALUNAS, DYLAN ANTOVICH,
PATRICK K. GOH, MICHELLE M. MARTEL,
JESSICA TIPSORD, ELIZABETH K. NOUSEN,
AND JOEL T. NIGG
- AMY L. BYRD, ANGELA H. LEE,
OLIVIA A. FRIGOLETTTO,
MAUREEN ZALEWSKI,
AND STEPHANIE D. STEPP
- 1734** Using ecological momentary assessment to enhance irritability phenotyping in a transdiagnostic sample of youth
- 1747** Child maltreatment severity and sleep variability predict mother-infant RSA coregulation
- 1759** Developmental consequences of early life stress on risk for psychopathology: Longitudinal associations with children's multisystem physiological regulation and executive functioning
- 1774** Multimodal assessment of sustained threat in adolescents with nonsuicidal self-injury
- 1793** Towards a contemporary approach for understanding personality pathology in developmental context: An integrative model
- 1803** Longitudinal network model of the co-development of temperament, executive functioning, and psychopathology symptoms in youth with and without ADHD
- 1821** Applying new RDoC dimensions to the development of emotion regulation: Examining the influence of maternal emotion regulation on within-individual change in child emotion regulation

HANNA C. GUSTAFSSON, SAARA NOLVI,
ELINOR L. SULLIVAN, JEROD M. RASMUSSEN,
LAUREN E. GYLLENHAMMER,

SONJA ENTRINGER, PATHIK D. WADHWA,
THOMAS G. O'CONNOR, LINNEA KARLSSON,
HASSE KARLSSON, RIUKKA KORJA,
CLAUDIA BUSS, ALICE M. GRAHAM,
AND JOEL T. NIGG

SIERRA E. CARTER, FREDERICK X. GIBBONS,
AND STEVEN R.H. BEACH

DEBORAH A. G. DRABICK,
RAFAELLA J. JAKUBOVIC,
VALERIE S. EVERETT, ABBEY L. FRIEDMAN,
GEORGE O. EMORY,
AND FAYLYN B. KALCHTHALER

1837 Early development of negative and positive affect:
Implications for ADHD symptomatology across
three birth cohorts

1849 Measuring the biological embedding of racial
trauma among Black Americans utilizing the
RDoC approach

1864 Conduct problems among children in low-income,
urban neighborhoods: A developmental
psychopathology- and RDoC-informed approach

Corrigendum

HANNA C. GUSTAFSSON, SAARA NOLVI,
ELINOR L. SULLIVAN, JEROD M. RASMUSSEN,
LAUREN E. GYLLENHAMMER,
SONJA ENTRINGER, PATHIK D. WADHWA,
THOMAS G. O'CONNOR, LINNEA KARLSSON,
HASSE KARLSSON, RIUKKA KORJA,
CLAUDIA BUSS, ALICE M. GRAHAM,
AND JOEL T. NIGG

1882 Early development of negative and positive affect:
Implications for ADHD symptomatology across
three birth cohorts – CORRIGENDUM