34 NUMBER 2

**CAMBRIDGE**UNIVERSITY PRESS

#### **PHONOLOGY**

#### Editors

Colin Ewen (University of Leiden)

Ellen Kaisse (University of Washington)

#### Review editor

Andrew Nevins (University College London & Federal University of Rio de Janeiro)

#### Associate editors

Bruce Hayes (University of California, Los Angeles)

Elizabeth Hume (University of Canterbury)

Larry Hyman (University of California, Berkeley)

William Idsardi (University of Maryland)

Yoonjung Kang (University of Toronto Scarborough)

D. Robert Ladd (University of Edinburgh)

Scott Myers (University of Texas at Austin)

Joe Pater (University of Massachusetts Amherst)

Keren Rice (University of Toronto)

Jennifer Smith (University of North Carolina at Chapel Hill)

Kie Zuraw (University of California, Los Angeles)

#### Editorial board

Adam Albright (Massachusetts Institute of Technology)

John Alderete (Simon Fraser University)

Diana Archangeli (University of Arizona)

Amalia Arvaniti (University of Kent)

Ellen Broselow (Stony Brook University)

Andries Coetzee (University of Michigan)

Laura Downing (Gothenburg University)

Gillian Gallagher (New York University)

Matthew Goldrick (Northwestern University)

Daniel Currie Hall (Saint Mary's University)

Pavel Iosad (University of Edinburgh)

Gaja Jarosz (University of Massachusetts Amherst)

Shigeto Kawahara (Keio University)

Elliott Moreton (University of North Carolina at Chapel Hill)

Marc van Oostendorp (Meertens Institute, Amsterdam)

Tobias Scheer (CNRS/University of Nice)

Members of the editorial board are appointed for terms of five years.

#### Subscriptions

Phonology (ISSN 0952–6757) is published three times a year, in May, August and December. The subscription price of Volume 34 (2017) for institutions, which includes print and electronic access, is £279.00 (US \$473.00 in the U.S.A., Canada and Mexico). The electronic-only price available to institutional subscribers is £228.00 (US \$383.00). The print-only price available to institutional subscribers is £252.00 (US \$426.00). The price to individuals ordering direct from the publishers and certifying that the journal is for their personal use is £39.00 (US \$60.00). This includes both a print subscription and online access.

Orders, which must be accompanied by payment, may be sent to a bookseller, subscription agent or direct to the publisher: Cambridge University Press, Journals Fulfillment Department, University Printing House, Shaftesbury Road, Cambridge CB2 8BS. Orders from the U.S.A., Canada and Mexico should be sent to: Cambridge University Press, Journals Fulfillment Department, 1 Liberty Plaza, Floor 20, New York, NY 10006, U.S.A. Japanese prices for institutions are available from Kinokuniya Company Ltd, P.O. Box 55,

## **PHONOLOGY**

VOLUME 34 · NUMBER 2 · 2017

Edited by Colin J. Ewen and Ellen M. Kaisse



Published by the Press Syndicate of the University of Cambridge The Pitt Building, Trumpington Street, Cambridge CB2 1RP, United Kingdom

#### CAMBRIDGE UNIVERSITY PRESS

University Printing House, Shaftesbury Road, Cambridge CB2 8BS 1 Liberty Plaza, Floor 20, New York, NY 10006, USA 477 Williamstown Road, Port Melbourne, VIC 3207, Australia C/ Orense, 4, planta 13, 28020 Madrid, Spain Dock House, The Waterfront, Cape Town 8001, South Africa

http://www.cambridge.org

© Cambridge University Press 2017

First published 2017

Printed in the United Kingdom by Bell & Bain Ltd., Glasgow.

ISSN 0952-6757

#### **CONTENTS**

#### Computational phonology

(Guest editors: Jeffrey Heinz and William J. Idsardi)

#### 211 Computational phonology today

Jeffrey Heinz (University of Delaware) and William J. Idsardi (University of Maryland)

#### 221 A theory-driven model of handshape similarity

Jonathan Keane (University of Chicago), Zed Sevcikova Sehyr, Karen Emmorey (San Diego State University) and Diane Brentari (University of Chicago)

## **243** Constraint conjunction in weighted probabilistic grammar Stephanie S. Shih (University of California, Merced)

## **269** Defying the stimulus: acquisition of complex onsets in Polish Gaja Jarosz (University of Massachusetts Amherst)

# **299** Learning opacity in Stratal Maximum Entropy Grammar Aleksei Nazarov (Harvard University) and Joe Pater (University of Massachusetts Amherst)

## 325 How abstract is more abstract? Learning abstract underlying representations

Charlie O'Hara (University of Southern California)

#### 347 The sound of a spherical cow

Julian Bradfield (University of Edinburgh)

#### 363 The local nature of tone-association patterns

Adam Jardine (Rutgers University)

#### 385 The power of locality domains in phonology

Thomas Graf (Stony Brook University)

## **407** Formal and computational verification of phonological analyses Mans Hulden (University of Colorado)

#### 437 List of contributors

### **COMPUTATIONAL PHONOLOGY**

Guest editors

Jeffrey Heinz and William J. Idsardi