

## Cambridge Elements

Elements in the Philosophy of Mathematics
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# SEMANTICS AND THE ONTOLOGY OF NUMBER

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## **CAMBRIDGE**UNIVERSITY PRESS

University Printing House, Cambridge CB2 8BS, United Kingdom One Liberty Plaza, 20th Floor, New York, NY 10006, USA 477 Williamstown Road, Port Melbourne, VIC 3207, Australia 314–321, 3rd Floor, Plot 3, Splendor Forum, Jasola District Centre, New Delhi – 110025, India

79 Anson Road, #06–04/06, Singapore 079906

Cambridge University Press is part of the University of Cambridge.

It furthers the University's mission by disseminating knowledge in the pursuit of education, learning, and research at the highest international levels of excellence.

www.cambridge.org Information on this title: www.cambridge.org/9781108456258 DOI: 10.1017/9781108602259

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First published 2021

A catalogue record for this publication is available from the British Library.

ISBN 978-1-108-45625-8 Paperback ISSN 2399-2883 (online) ISSN 2514-3808 (print)

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#### Semantics and the Ontology of Number

Elements in the Philosophy of Mathematics

DOI: 10.1017/9781108602259 First published online: April 2021

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Abstract: What are the meanings of number expressions, and what can they tell us about questions of central importance to the philosophy of mathematics, specifically 'Do numbers exist?' This Element attempts to shed light on this question by outlining a recent debate between substantivalists and adjectivalists regarding the semantic function of number words in numerical statements. After highlighting their motivations and challenges, I develop a comprehensive polymorphic semantics for number expressions. I argue that accounting for their numerous meanings and how they are related leads to a strengthened argument for realism, one which renders familiar forms of nominalism highly implausible.

**Keywords:** semantics of number expressions, realism and nominalism, substantivalism and adjectivalism, counting and measuring, the easy argument for numbers

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ISBNs: 9781108456258 (PB), 9781108602259 (OC) ISSNs: 2399-2883 (online), 2514-3808 (print)



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