

Cambridge Elements =

Elements in Construction Grammar edited by Thomas Hoffmann Catholic University of Eichstätt-Ingolstadt Alexander Bergs Osnabrück University

CONSTRUCTIONS AND COMPOSITIONALITY

Cognitive and Computational Explorations

Giulia Rambelli University of Bologna







Shaftesbury Road, Cambridge CB2 8EA, 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

103 Penang Road, #05-06/07, Visioncrest Commercial, Singapore 238467

Cambridge University Press is part of Cambridge University Press & Assessment, a department of the University of Cambridge.

We share the University's mission to contribute to society through the pursuit of education, learning and research at the highest international levels of excellence.

www.cambridge.org
Information on this title: www.cambridge.org/9781009517393

DOI: 10.1017/9781009437929

© Giulia Rambelli 2024

This publication is in copyright. Subject to statutory exception and to the provisions of relevant collective licensing agreements, no reproduction of any part may take place without the written permission of Cambridge University Press & Assessment.

When citing this work, please include a reference to the DOI 10.1017/9781009437929

First published 2024

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

ISBN 978-1-009-51739-3 Hardback ISBN 978-1-009-43796-7 Paperback ISSN 2753-2674 (online) ISSN 2753-2666 (print)

Cambridge University Press & Assessment has no responsibility for the persistence or accuracy of URLs for external or third-party internet websites referred to in this publication and does not guarantee that any content on such websites is, or will remain, accurate or appropriate.



Constructions and Compositionality

Cognitive and Computational Explorations

Elements in Construction Grammar

DOI: 10.1017/9781009437929 First published online: November 2024

> Giulia Rambelli University of Bologna

Author for correspondence: Giulia Rambelli, giulia.rambelli4@unibo.it

Abstract: How do we understand any sentence, from the most ordinary to the most creative? The traditional assumption is that we rely on formal rules combining words (compositionality). However, psycho- and neurolinguistic studies point to a linguistic representation model that aligns with the assumptions of Construction Grammar: There is no sharp boundary between stored sequences and productive patterns. Evidence suggests that interpretation alternates compositional (incremental) and noncompositional (global) strategies. Accordingly, systematic processes of language productivity are explainable by analogical inferences rather than compositional operations: Novel expressions are understood "on the fly" by analogy with familiar ones. This Element discusses compositionality, alternative mechanisms in language processing, and explains why Construction Grammar is the most suitable approach for formalizing language comprehension.

This Element also has a video abstract: www.cambridge.org/EICG-Rambelli

Keywords: compositionality, analogy, language processing, Construction Grammar, computational modeling

JEL classifications: A12, B34, C56, D78, E90

© Giulia Rambelli 2024

ISBNs: 9781009517393 (HB) 9781009437967 (PB) 9781009437929 (OC) ISSNs: 2753-2674 (online) 2753-2666 (print)



Contents

1	Introduction	1
2	The Problem of Compositionality as a Processing Principle	11
3	Accessing Meaning Noncompositionally: Insights from Experimental Data	29
4	Explaining Productivity through Analogy	45
5	Rethinking Compositionality: A Constructionist Perspective	59
6	Concluding Remarks	70
	References	72