# Preface

This book developed out of courses on computational semantics that the authors jointly taught at the Department of Computational Linguistics, University of the Saarland, Saarbrücken, Germany, in 1995 and 1998, and at ESSLLI'97, the *9th European Summer School in Logic, Language and Information*, Aix-en-Provence, France, in August 1997. When designing these courses, we found no single source containing all the material we wanted to present. At that time, the only notes exclusively devoted to computational semantics that we knew of were Cooper et al. (1993), probably the first systematic introduction to modern computational semantics. Like the present book, these notes are Prolog based, and cover some of the same ground, often using interestingly different tools and techniques. However we wanted to teach the subject in a way that emphasized inference, underspecification, and grammar engineering and architectural issues. By the end of the 1990s we had a first version of the book, influenced by Pereira and Shieber (1987) and Johnson and Kay (1990) for semantic construction, and Fitting (1996) for inference, which partially realised these goals.

The project then took on a life of its own: it expanded and grew in a variety of (often unexpected) directions. Both the programs and text were extensively rewritten, some parts several times. We first presented a mature, more-or-less stable, version of the newer material at ESSLLI'01, the *13th European Summer School for Logic, Language, and Information*, Helsinki, Finland, in August 2001. We then presented it in a more refined form at NASSLLI'02, the *2nd North American Summer School for Logic, Language, and Information, Indiana University*, Bloomington, Indiana, USA, in June 2002. And finally, many years after we started, we have ended up with the kind of introduction to computational semantics that we wanted all along. It has taken us a long time to get there, but the journey was a lot of fun. We hope that this

comes through, and that the book will be a useful introduction to the challenging and fascinating area known as computational semantics.

**Acknowledgments**

The path to the finished book has been long and winding, and we have accumulated many debts of gratitude along the way. First of all, we would like to thank Manfred Pinkal and our ex-colleagues at the Department of Computational Linguistics, University of the Saarland, Saarbrücken, Germany; the department was a stimulating environment for working on computational semantics, and the ideal place to start writing this book. Special thanks to David Milward, who during his stay at Saarbrücken developed the test suite for $\beta$-conversion, and allowed us to make use of it. We would also like to thank all our ex-students from the University of the Saarland, and in particular Judith Baur, Aljoscha Burchardt, Gerd Fliedner, Malte Gabsdil, Kristina Striegnitz, Stefan Thater, and Stephan Walter, for their enthusiasm and support.

Conversations with Harry Bunt, Paul Dekker, Andreas Franke, Claire Gardent, Hans Kamp, Martin Kay, Michael Kohlhase, Alexander Koller, Karsten Konrad, Alex Lascarides, Christof Monz, Reinhard Muskens, Malvina Nissim, Maarten de Rijke, and Henk Zeevat were helpful in clarifying our goals. We're grateful to Stephen Anthony, David Beaver, Mary Dalrymple, Stina Ericsson, Norbert Fuchs, Björn Gambäck, Durk Gardenier, Michel Généreux, John Kirk, Ewan Klein, Emiel Krahmer, Torbjörn Lager, Shalom Lappin, Staffan Larsson, Stefan Müller, Ian Pratt-Hartmann, Rob van der Sandt, Frank Schilder, and David Schlangen for comments on early drafts. Special thanks to Carlos Areces and Kristina Striegnitz for their editorial help, to Eric Kow for Perl hints, and to Sébastien Hinderer for proof-reading.

Many members of the automated reasoning community expressed interest in this project and gave us various kinds of support. In particular, we are grateful to William McCune (the author of Otter and Mace) for his timely response to our questions, to Hans de Nivelle (the author of Bliksem) for helping us with our first experiments in off-the-shelf theorem proving, and to Koen Claessen and Niklas Sörensson (the authors of Paradox) for discussion and advice on model building. We'd also like to thank Peter Baumgartner, Rajeev Goré, Andrew Slater, Geoff Sutcliffe, and Toby Walsh for their helpful responses to our questions.

Finally, we are grateful to Robin Cooper and Bonnie Webber, who both taught courses based on the previous drafts of this book, and provided us with feedback on what worked and what didn't.

Patrick Blackburn
Johan Bos
*November 2004*