Report on the Seventh International Workshop on Nonmonotonic Reasoning

Gerhard Brewka and Ilkka Niemela

The Seventh International Workshop on Nonmonotonic Reasoning was held in Trento, Italy, on 30 May to 1 June 1998 in conjunction with the Sixth International Conference on the Principles of Knowledge Representation and Reasoning (KR'98). The workshop was sponsored by the American Association for Artificial Intelligence, Compulog, Associazione Italiana per l'Intelligenza Artificiale, and the Prolog Development Center.

This year's workshop, organized by Gerhard Brewka and Ilkka Niemela (local chair: Enrico Giunchiglia, honorary chair: Ray Reiter), was different from earlier workshops in this series in an important aspect: It consisted of several specialized tracks, held partially in parallel, embedded in a plenary program that comprised invited talks and a panel. The following five tracks were organized: (1) Formal Aspects and Applications of Nonmonotonic Reasoning (cochairs: Jim Delgrande, Mirek Truszczynski), (2) Computational Aspects of Nonmonotonic Reasoning (cochairs: Niemela, Torsten Schaub), (3) Logic Programming (cochairs: Jürgen Dix, Jorge Lobo), (4) Action and Causality (cochairs: Vladimir Lifschitz, Hector Geffner), and (5) Belief Revision (cochairs: Hans Rott, Mary-Anne Williams).

The plenary program included five invited talks: (1) From Logic Programming to Multiagent Systems by Bob Kowalski; (2) Pragmatism, In-quiry, and Inductively Extended Expansion by Isaac Levi; (3) Nonmonotonic Reasoning in the Service of Elaboration Tolerance by John McCarthy; (4) Learning to Make Nonmonotonic Inferences by Dan Roth; and (5) From Features and Fluents to Thinking When Flying—Reasoning about Actions in an Intelligent UAV by Erik Sandewall.

Both the new format and the scheduling of the workshop in conjunction with the KR Conference proved to be highly fruitful. The

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workshop had 48 accepted papers, and the number of registered participants was over 90, reflecting a new, more open policy of inviting everyone interested in the workshop. The organizers were particularly pleased about the high number of student registrants, which showed that the workshop does not just attract the same old crowd year after year.

The participants in the plenary panel identified the following major trends in the field: First, serious systems for nonmonotonic reasoning are now available (XSB, SMODELS, DLV). Second, people outside the community are starting to use these systems with encouraging success (for example, in planning). Third, nonmonotonic techniques for reasoning about action are used in highly ambitious long-term projects (for example, the WITAS Project, www.ida.liu.se/ext/witas/eng.html). Fourth, causality is still an important issue; some formal models of causality have surprisingly close connections to standard nonmonotonic techniques. Fifth, the nonmonotonic logics being used most widely are the classical ones: default logic, circumscription, and autoepistemic logic.

Maybe the most remarkable trend that became apparent during the workshop was the new excitement among the participants. The depression that plagued a number of people in the field seems to be over. The common feeling was that the theory of nonmonotonic reasoning is beginning to pay off.

Gerhard Brewka is a professor of intelligent systems at the University of Leipzig, Germany. He is responsible for the doctoral program in knowledge representation at Leipzig. His research interests include foundations of knowledge representation; reasoning about action; qualitative preferences; logic programming; and, in particular, nonmonotonic reasoning. He is (co)author of two books and numerous articles on nonmonotonic reasoning. His e-mail address is brewka@informatik.uni-leipzig.de.