Computational Linguistics

Special Issue on Inheritance: I

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Correction

In CL, Dec 91, page 458, footnote 2, the address of the Nijmegen people is given as cor_hvh@kunrcl...it should be cor_hvh@kunrc1 (i.e., one, not ell).

Editors' Note

Inheritance mechanisms and their implications for description, theory, and processing have become an increasingly important research topic in computational linguistics. In two special issues of *Computational Linguistics*, a sample of current research in this area will be presented.

Volume 18, Number 2

In "Inheritance in Natural Language Processing," Daelemans, De Smedt, and Gazdar outline some of the motivations that have led to the widespread use of inheritance mechanisms in computational linguistics and provide a survey of the recent literature.

Bouma, in "Feature Structures and Nonmonotonicity," introduces default unification as a means of reconciling inheritance with unification grammars. A formalism based on monotonic multiple inheritance in networks of typed feature structures is proposed in Zajac's paper "Inheritance and Constraint-Based Grammar Formalisms."

Some linguistic frameworks have explicitly incorporated inheritance into their theories. One of these is described "Inheritance in Word Grammar" by Fraser and Hudson.

While most work has used inheritance networks as a means to store static information, a number of researchers have also begun to explore their utility in language processing. An example of this is provided by van der Linden in "Incremental Processing and the Hierarchical Lexicon."

Volume 18, Number 3

The main area of application of inheritance networks has been the structure and organization of computational lexicons. In the second of the two special issues, three alternative approaches to inheritance in lexical representation are presented.

Andry, Fraser, McGlashan, Thornton, and Youd employ a DATR lexicon in the context of a Unification Categorical Grammar in "Making DATR Work for Speech: Lexicon Compilation in SUNDIAL."

In "Inheritance and Complementation: A Case Study of Easy Adjectives and Related Nouns," Flickinger and Nerbonne apply a default inheritance framework to the lexical representation of complementation phenomena.

Finally, Russell, Ballim, Carroll, and Warwick-Armstrong introduce a language for defining multiple default inheritance networks for the lexicon, inspired by objectoriented programming, in "A Practical Approach to Multiple Default Inheritance for Unification-Based Lexicons."

Gerald Gazdar Walter Daelemans, Guest Editors