

School of Cognitive and Computing Sciences

First Year School Course — CG019

## COGNITIVE MODELLING

Seminar Week 5: Summer Term 2002

Steve Torrance and Benedict du Boulay

This seminar is designed to compare and contrast ACT\* and SOAR as systems for cognitive modelling and, if there is time, reflect of the work on Braitenberg vehicles.

1. The main readings for the ACT family of models are pages 42, 49, 335–336, and for SOAR are 49, 50, 75, 336, 360–6 of [G<sup>+</sup>98].
2. You should also read pages 330–339 (Expertise) of Chapter 11 (How We Solve Problems) from [G<sup>+</sup>98].

In reading the section from Chapter 11 you should keep in mind the work you have done on modelling children's subtraction.

3. You should also think about modelling action. The reading is pages 354–367 (Two Models of the Control of Action) of Chapter 12 (The Control of Thought and Action) from [G<sup>+</sup>98], paying particular attention to SOAR. To get the most out of this subsection, you should skim read the earlier part of the Chapter.

In reading Chapter 12 you should think about any parallels to the computer class activity for week 5 on modelling sensors and effectors. You can read about this ahead of the lab, see the Computer Class handout for week 5, especially the detailed descriptions of the experiments at

<http://www.cogs.susx.ac.uk/users/christ/bugworks/website/quickStart.html>

## References

- [G<sup>+</sup>98] David W. Green et al. *Cognitive Science, An Introduction*. Blackwell, Oxford, 1998. QZ 1000 Cog.