

Ch1. Quantities and Numbers

1st Research stream

The comparison of quantity

Ch2. Estimation

- Examine RT and accuracy measures of comparative vs self-reported estimation
- Select stimuli for a double-factorial comparative estimation task.

Ch3. Comparative Estimation

- Apply systems factorial technology to a systems of comparative estimation
- Assess the architecture (parallel vs serial) and workload of a comparative estimation system

Ch4. Comparative Subitizing

- Assess the architecture and workload of a comparative subitizing system
- Extend inferences made in Chapter 3

Ch5. Mixture Models

- Provide new theoretical signatures to diagnose mixtures of parallel and serial architectures

2nd Research stream

The confusion of numbers

Ch6. The Cost of Errors

- Assess the dimensions with which we confuse numerals (perceptual vs numerical)
- Compare results for symbolic (Arabic, Chinese and Thai) vs non-symbolic (dot) numerals

Ch7. The Cross Cultural Cost of Errors

- Assess the dimensions along which a Chinese speaking cohort confuse numerals (perceptual vs numerical)
- Compare results for symbolic (Arabic, Chinese and Thai) vs non-symbolic (dot) numerals
- Compare results between an English speaking vs Chinese speaking cohort
- Consider the effect of expertise

Ch8. General Conclusions