

1.4.2 Language Acquisition and Cognitive Science Language acquisition is not only inherently interesting; studying it is one way to look for concrete answers to questions that permeate cognitive science. The scientific study of language acquisition began around the same time as the birth of cognitive science, in the late 1950's. The historical catalyst was Noam Chomsky's review of Skinner's Verbal Behaviour (Chomsky, 1959). At that time, Anglo-American natural science, social science, and philosophy had come to a virtual consensus about the answers to the questions listed above. The mind consisted of sensorimotor abilities plus a few simple laws of learning governing gradual changes in an organism's behavioural repertoire. Therefore language must be learned, it cannot be a module, and thinking must be a form of verbal behaviour, since verbal behaviour is the prime manifestation of "thought" that can be observed externally. Chomsky argued that language acquisition falsified these beliefs in a single stroke: children learn languages that are governed by highly subtle and abstract principles, and they do so without explicit instruction or any other environmental clues to the nature of such principles. Hence language acquisition depends on an innate, species-specific module that is distinct from general intelligence. Much of the debate in language acquisition has attempted to test this once-revolutionary, and still controversial, collection of ideas. The implications extend to the rest of human cognition.