This work focuses on the comparison of Carnap's account of protocolar sentences and Quine's account of observation sentences.

Carnap's works on protocolar sentences date back to the beginning of 1930's. His chief idea was to make a bridge between science and experience and to transmit the connection between the terms of various scientific fields. Some of Carnap's ideas were questioned by Otto Neurath, who shared with Carnap the physicalistic approach, but had a different view on the desirable features of the protocolar sentences. Within Carnap's theory, protocolar sentences were intended to refer to the sensory characteristics of the physical world. The very conception of protocolar sentences was inspired by physicist's or psychologist's reports, but protocolar sentences in Carnapean sense could also be produced by animals or machines. Carnap originally believed some protocolar sentences to be fundamental and unquestionable. They should have afforded a safe ground for the development of science. Neurath's objections against such a view forced Carnap to adjust his own theory. Carnap also gave up his hopes of total verification, but still expected his theory to enable the confirmation of the general statements of the form "Every X is Y." with a sufficient level of certainty. Carnap's conception faced various critical remarks. Those of Popper, Kuhn, Sellars and Quine belonged among the most important ones. This work gives a sketch of these objections. In spite of its multiple problems, the project of Carnap and other members of Vienna Circle should not be seen as a total failure. The need of a distinction between science and speculative philosophy has remained relevant till now. Carnap's standpoint was overly radical in this respect, but not completely out-of-place.

Several decades later, Quine drew his attention to the observation sentences. His conception keeps some features of the Vienna Circle's account of observation and protocolar sentences, but differs in several significant aspects. Quine links the observation sentences to the observer's neural intakes, which enables him to focus on the factual sensory evidence rather that on its representation in one's mind. Observation sentences have to be intersubjective and should invoke an immediate reaction, i.e. approval or rejection.