

Both theories and the types of data that are considered appropriate for theories underwent major changes during the 20th century. There were some outstanding examples of careful theorizing in perception and other areas of psychology in the late 19th century, but few theories were what we would, at the end of the 20th century, call process theories. At the end of the 19th century, such process theories as there were, were mentalistic, speculative, and unsuccessful. At the end of the 20th century, theories have become process oriented, detailed, and accurate in their account of experimental data. concurrently, there has been a continuing trend in the style of data collection: In the late 19th century it was the norm to use a small range of relatively simple stimuli and to encourage the observer to make complex-frequently introspective-responses . In the domain of perception, particularly, there has been a trend toward using increasingly simple responses (e.g., merely selecting one of two intervals in a two-interval forced choice procedure), with the complexity being displaced from the response to the stimuli. the advent of computer-generated displays has accentuated this trend. In this chapter, we illustrate the development of theories with examples from the area of visual perception, attention, and memory .