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**Historic Patterns in Astronomical Incomprehension** VIRGINIA TRIMBLE, UC Irvine & Las Cumbres Observatory — Because astronomy is old, it has had a chance to display some very prolonged battles in the war between ideas (theories) and observations (data) that we call science. It is possible to discern two major patterns – data leading vs. ideas leading – and very short to very long durations of the events that eventually led to understanding. A variant has the community converging with vigor around a wrong answer (gamma ray bursters are a recent example). The talk will explore some of the author's favorite examples of each pattern. These include the rapid basic understanding of quasars and pulsars vs. the extremely long times required to figure out the solar corona and pulsating variable stars. Among the cases where theory has led via prediction, discovery was almost immediate for 21 cm radio emission and superluminal motion in quasars, but very slow for fluctuations in the cosmic microwave background radiation, certain kinds of polarization, and (surely a record never to be broken) heliocentric parallax.

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