Data is neither good nor bad. Its value can only be determined when it is used as evidence for a theory. The evidentiary process therefore involves defining a theory (to some appropriate level of uncertainty-minimization). For cognition, the ‘theory’ encompasses all those cognitive modules and physical mechanisms upstream from the observations, including the observation devices themselves. The evidentiary process further involves relating observations to the theory, which requires a theory of theory-to-observation translation.

The problem with evaluating evidence is that theories change; observation devices also develop, and theories of theory-to-observation translation change, too. It is therefore necessary to accept that data must continually be reassessed for its value as evidence relative to the evolving triplets of theory, observation device, and theory-observation translation.

It is crucial, then, to achieve two goals within the field of phonology: (1) to develop social attitudes that support continuous re-evaluation of data-as-evidence, and (2) to establish the worth of explicit understanding of the evidentiary process (without which (1) is impossible to achieve).