When first introduced in 1960s, rational choice theory was criticized by social scientists from various fields as it "relied on implausible or empirically invalid assumptions about the preferences, knowledge, and computational capabilities of the actors in question" (Watts, 2014, p. 320). In other words, the prediction it yielded didn't consist with empirical evidence.

The author described the main pitfall in using commonsense theories of action. According to him, the validity of the assumption that "understandability and causality were effectively interchangeable" is questionable (Watts, 2014, p. 327). The explanation from common sense, though could "make sense of some observed outcome", cannot be generalized to the underlying "causal mechanism" in everyday life (Watts, 2014, p. 327). It's just that the mistake made by common sense explanation is minor or is corrected so quickly that people don't notice them.

The author introduced three partial solutions to problems with rational choice modelling and causal explanation. The first approach is to use more experimental methods, including field experiment, natural experiments, quasi-experiments and laboratory experiments. In addition, "the counterfactual model of causal inference" can be used to analyze observational data (Watts, 2014, p. 336). Moreover, explanations can be evaluated by "their ability to predict" (Watts, 2014, p. 337).

In Watt's paper, he distained simplified theoretical models. However, in my opinion, theoretical model has its own power and can benefit causal inference and prediction. Although simplified models with assumptions couldn't match perfectly with reality, theoretical models could provide guidance to research design and prediction making beforehand. With the guidance of theoretical models, researchers are less likely to focus on locally specific questions but miss the overall view. Even with the emergence of new large data analysis techniques and other advanced statistical methods, theoretical models are still needed as foundation and underlying guidance. In addition, the assumptions of theoretical models could always be expanded and modified to be more consistent with reality. For example, in Economics, with the increase of challenging views against pure rationality assumption, new fields such as Behavioral Economics has emerged to deal with bounded rationality. To conclude, theoretical models are still powerful as guidance for research and could benefit causal inference and predictions.