CONCEPTUAL AND APPLIED CHALLENGES OF PLAUSIBILITY

Plausibility Portrait for the 2009 Plausibility Project Workshop
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Two things are intriguing about plausibility. First, there are the conceptual challenges inherent in plausibility, as plausibility must reflect possibilities that are also deemed credible. Second, there is the messy application of plausibility in decision-making. Although "plausible" scenarios are often employed to aid decision-making in the present, explicit metrics for plausibility are underutilized (and perhaps underdeveloped).

Plausibility has inherent conceptual challenges, as plausible scenarios, whether they come from storylines or quantitative models, must exist within a bounded set of *credible* scenarios but also expand the credibility boundary toward the arguably open set of *possibility*. Thus when one conceptualizes plausibility, s/he must engage both logical and creative processes simultaneously, ideally, without favoring one process too much over the other. Plausibility also has a temporal dimension, as scenarios that seem plausible today might not be plausible 10 years from now (or even sooner). This is because plausibility aims to capture a moving (time-varying) target – the intersection of credible and possible scenarios that are also considered interesting. At times, it can be the very consideration of plausible futures that instigates organizational or policy decisions that alter the possibility space. Finally, plausibility can be dangerously alluring. Particularly convincing scenarios can close scenario users' minds to equally plausible, important, but perhaps unfamiliar, possibilities. When this occurs, it is due to the conjunctive fallacy of believing conjoined, independent events (e.g. being male *and* being a professional basketball player) are more likely than independent events occurring alone (e.g. being male *or* being a professional basketball player). Given the subjective and unpredictable nature of these challenges, these might explain why there is little standardization in the methods, or even objectives[1], of scenario analysis.

Despite the inherent difficulties in identifying plausible scenarios, there are many decisions that must be made today with delayed consequences. Under such circumstances, decision makers often request scenarios to conceptualize possible outcomes from alternative courses of action. However, explicit metrics for scenario plausibility are underutilized leading many decision makers to either (a) ignore scenario analyses because they are not satisfied with the results (perhaps because the scenario analyst's conclusions do not align with decision maker opinions) or (b) make judgments for their policy positions based on opaque scenarios of unknown or dubious plausibility. Scenarios in the latter case persist because of the lack of standard practices for assessing scenario plausibility.

Many of the above challenges could be addressed through regular assessments of scenario plausibility. When required to account for what makes scenarios plausible, the conceptual understanding of plausibility can be sharpened. Because plausibility assessment is not common, it is not clear that existing tools are sufficient. Internal consistency measures, as suggested by Weimer-Jehle's cross-impact balance method, are a logical start.

[1] Objectives can range from goal setting (i.e. Robinson's backcasting, where a desirable future is identified and strategies are developed to help realize that future) to strategic planning to persuasion. Though different methods lend themselves to different objectives, the primary objective of a scenario analysis is not always unambiguous.