Satisficing

Authored by

mohammad looti

June 12, 2026

Satisficing, a portmanteau "combining satisfy with suffice", is a decision-making strategy that attempts to meet criteria for adequacy, rather than to identify an optimal solution. A satisficing strategy may often be (near) optimal if the costs of the decision-making process itself, such as the cost of obtaining complete information, are considered in the outcome calculus.

The word satisfice was coined by Herbert Simon in 1956. He pointed out that human beings lack the cognitive resources to maximize: we usually do not know the relevant probabilities of outcomes, we can rarely evaluate all outcomes with sufficient precision, and our memories are weak and unreliable. A more realistic approach to rationality takes into account these limitations: This is called bounded rationality.

Some consequentialist theories in moral philosophy use the concept of satisficing in the same sense, though most call for optimization instead.

Etymology

The word originated as an alternative spelling of the transitive verb "satisfy" in the 16th Century (influenced by the Latin "satisfacére"). Use of the word in this sense had become obsolete except in northern dialects of England when Simon reintroduced it as an intransitive verb with its new meaning in the mid 20th Century.

Cybernetics and artificial intelligence

In cybernetics, "satisficing is optimization where 'all' costs, including the cost of the optimization calculations themselves and the cost of getting information for use in those calculations, are considered."

As a result, the eventual choice is usually sub-optimal in regard to the main goal of the optimization, i.e., different from the optimum in the case that the costs of choosing are not taken into account.

During a 1997 chess game against Deep Blue, Garry Kasparov, after being defeated in a game where his computer opponent adopted a satisficing position, remarked that the computer was "playing like a human." Kasparov later explained that, when playing computers, chess masters could often defeat them by predicting the most "rational" move; however, satisficing made such a prediction unreliable.

Decision making

In decision making, satisficing explains the tendency to select the first option that meets a given

need or select the option that seems to address most needs rather than the "optimal" solution.

Example: A task is to sew a patch onto a pair of jeans. The best needle to do the threading is a 4 inch long needle with a 3 millimeter eye. This needle is hidden in a haystack along with 1000 other needles varying in size from 1 inch to 6 inches. Satisficing claims that the first needle that can sew on the patch is the one that should be used. Spending time searching for that one specific needle in the haystack is a waste of energy and resources.

Simon, as a further example, once explained satisficing to his students by describing a mouse searching for cheese in a maze. The mouse might begin searching for a piece of Gouda, but unable to find any would eventually be "satisfied" and could "suffice" with any piece of cheese, such as cheddar.

Satisficing occurs in consensus building when the group looks towards a solution everyone can agree on even if it may not be the best.

Example: A group spends hours projecting the next fiscal year's budget. After hours of debating they eventually reach a consensus, only to have one person speak up and ask if the projections are correct. When the group becomes upset at the question, it is not because this person is wrong to ask, but rather because they have come up with a solution that works. The projection may not be what will actually come, but the majority agrees on one number and thus the projection is good enough to close the book on the budget.

In many circumstances, the individual may be uncertain about what constitutes a satisfactory outcome. For example, an individual who only seeks a satisfactory retirement income may not know what level of wealth is required--given uncertainty about future prices--to ensure a satisfactory income. In this case, the individual can only evaluate outcomes on the basis of their probability of being satisfactory.

If the individual chooses that outcome which has the maximum chance of being satisfactory, then this individual's behavior is theoretically indistinguishable from that of an optimizing individual under certain conditions

Thus, from a decision theory point of view, the distinction between "optimizing" and "satisficing" is essentially a stylistic issue (that can nevertheless be very important in certain applications) rather than a substantive issue. What is important to determine is what should be optimized and what should be satisficed.

The following quote from Jan Odhnoff's 1965 paper is appropriate:

In my opinion there is room for both 'optimizing' and 'satisficing' models in business economics. Unfortunately, the difference between 'optimizing' and 'satisficing' is often referred to as a

difference in the quality of a certain choice. It is a triviality that an optimal result in an optimization can be an unsatisfactory result in a satisficing model. The best things would therefore be to avoid a general use of these two words.

More on the "satisficing" vs "optimizing" debate can be found in Byron's 2004 edited collection of articles.

Economics

In economics, satisficing is a behavior which attempts to achieve at least some minimum level of a particular variable, but which does not necessarily maximize its value. The most common application of the concept in economics is in the behavioral theory of the firm, which, unlike traditional accounts, postulates that producers treat profit not as a goal to be maximized, but as a constraint. Under these theories, a critical level of profit must be achieved by firms; thereafter, priority is attached to the attainment of other goals.

Survey taking

As an example of satisficing, in the field of social cognition, Jon Krosnick proposed a theory of statistical survey satisficing which says that optimal question answering by a survey respondent involves a great deal of cognitive work and that some people would use satisficing to reduce that burden. Some people may shortcut their cognitive processes in two ways:

Weak satisficing: Respondent executes all cognitive steps involved in optimizing, but less completely and with bias.
Strong satisficing: Respondent offers responses that will seem reasonable to the interviewer without any memory search or information integration.

Likelihood to satisfice is linked to respondent ability, respondent motivation and task difficulty

Regarding survey answers, satisficing manifests in:

choosing explicitly offered no-opinion response option
choosing socially desirable responses
non-differentiation when a battery of questions asks for ratings of multiple objects on the same response scale
acquiescence response bias, which is the tendency to agree with any assertion, regardless of its content