

## HERBERT SIMON, POLYMATH AND DECISION SCIENTIST

"Herbert A. Simon's scientific output goes far beyond the disciplines in which he has held professorships: political science, administration, psychology and information sciences. He has made contributions in the fields of science theory, applied mathematics, statistics, operations research, economics and business and public administration (and), in all areas in which he has conducted research, Simon has had something of importance to say."



From Nobel Prize announcement of the Swedish Royal Academy of Sciences

Awarding him the Nobel, the Swedish Academy of Sciences cited "his pioneering research into the decision-making process within economic organizations" and acknowledging that "modern business economics and administrative research are largely based on Simon's ideas."

Professor Simon challenged the classical economic theory that economic behavior was essentially rational behavior in which decisions were made on the basis of all available information with a view to securing the optimum result possible for each decision maker. Instead, Professor Simon contended that in today's complex world individuals cannot possibly process or even obtain all the information they need to make fully rational decisions. Rather, they try to make decisions that are good enough and that represent reasonable or acceptable outcomes.

He also called this less ambitious view of human decision making "bounded rationality" or "intended rational behavior" and described the results it brought as "satisficing." In the mid-1950's, he teamed up with Allen Newell of the Rand Corporation to study human decision making by trying to simulate it on computers....

People were asked for the general reasoning processes they went through as they solved logical problems and these were then converted into computer programs that Professor Simon and Mr. Newell thought equipped these machines with a kind of artificial intelligence that enabled them to simulate human thought rather than just perform stereotyped procedures.