An interesting question is, “Where did the name dynamic programming come from?”

The technique really is for solving multistage stochastic decision processes. The word stochastic is not used lightly. DP was developed for stochastic processes. It was realized fairly late that DP can also be used to solve deterministic problems.

The 1950s were not good years for mathematical research. We had a very interesting gentleman in Washington as the Secretary of Defense, and he actually had a pathological fear and hatred of the word research. His face would suffuse, he would turn red, and he would get violent if people used the term research in his presence. One can imagine how he felt, then, about the term mathematical. The RAND Corporation was employed by the Air Force, and the Air Force had the Secretary of Defense as its boss, essentially. Hence, Dr. Bellman felt that he had to do something to shield the Air Force from the fact that he was really doing mathematics inside the RAND Corporation. What title, what name, could one choose? In the first place, one was interested in planning, in decision making, in thinking. But planning is not a good word for various reasons. He decided, therefore, to use the word programming. He wanted to get across the idea that this was dynamic, this was multistage, this was time-varying; let’s kill two birds with one stone. Let’s take a word that has an absolutely precise meaning, namely dynamic, in the classical, physical sense. It also has a very interesting property as an adjective, that is, it’s impossible to use the word dynamic in the pejorative sense. Try thinking of some combination that will possibly give it a pejorative meaning. It’s impossible. Thus, dynamic programming was a good name.