# Policy Evaluation – PMAP 4061

## Quiz 2: Rational Model

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1. (1 point) I am working at a research article on the factors influencing international enrollments from all world countries into Germany. I assume that prospect students would *only* compare German destinations with Austrian and Swiss destinations because the three countries share German as a medium of instruction.
   The assumption accounts for:
   A. Positive externalities of German higher education on neighbor countries
   B. Informational asymmetries in higher education markets
   **C. Student limited information processing**
   D. Student perfectly rational information processing

   **Solution:** I assume that students reduce their informational load by bounding their decision space to three countries with the same language. The assumption is consistent with bounded rationality.

2. (1 point) Simon's "satisficing" principle stands for people choosing:
   A. A policy option which suffices to maximize their utility
   **B. A policy option which suffices to accomplish their goals while turning down options providing greater overall utility**
   C. A sufficient number of policy options to process at a time
   D. A sufficient number of policy options to exhaust their allocated budget

   **Solution:** The "satisficing" principle calls into question utility maximization. Individuals do not maximize their overall utility, but choose whatever available option is *good enough* to achieve their goals.

3. (1 point) The government set out a carbon emission tax which would increase when economy-wide carbon emissions are higher on a given year than they were the year prior.
   A game-theoretic framework is *necessary* to model the policy problem.
   **A. Yes**
   B. No
   C. Not necessarily
   D. Too little information to tell

**Solution:** Companies expect competitors to increase emissions and therefore race to the bottom to increase theirs. The race forfeits the utility-maximizing outcome of lower taxes in the future, which only cooperation would achieve. A game-theoretic map is required to model the policy problem. As a general rule, when expectations on other agents' behaviors matter, game theory is required.

4. (1 point) According to the Pareto criterion, a policy option shall be preferred when _____.
   A. The policy maximizes the utility of everyone
   **B. The policy maximizes the utility of at least someone without making anyone else worse off**
   C. The net present value from the associated cash flows is positive
   D. The resulting allocation of resources is generated through competitive markets

**Solution:** C) is clearly off. Under some conditions (e.g., imperfect information), markets fail to deliver the utility-max outcome, hence D) is also incorrect. Lastly, A) is incorrect because the Pareto criterion does not require that everyone is better off as result of an allocation, but that no one is worse off. B) is correct.

5. (1 point) High voter turnout for the 2020 US General Presidential Election in spite of large shares of mail-in ballots counts towards a verification of the "voting paradox" (i.e., it is "paradoxical" in the sense of the voting paradox and defies rational choice theory).
   A. Yes
   **B. No**
   C. Not necessarily
   D. Too little information to tell

**Solution:** No, voting by mail decreases the cost of voting and should thereby increase expected turnout. Hence, the situation described is consistent with standard rational choice theory and defies the paradox.

6. (1 point) Education increases public welfare by reducing crime and fostering citizen cooperation. Only public colleges, not private colleges, generate positive externalities in the economy.
   A. Yes
   **B. No**

**Solution:** Private and public colleges alike generate positive externalities such as decreased unemployment and crime rates. Status does not define the type of externalities being generated.

7. (1 point) Signaling purists are adamant against college subsidies. The more people go to college, the lower the "signaling power" of degrees hence their income-generating capacity.
   The argument put forth by signaling theorists is that:
   A. Public investments in college education generate a negative externality
   B. Public investments in college education generate a positive externality

**C. The competitive price for college graduates is higher when the government is not involved**

D. Both B) and C)

**Solution:** C) is correct and B) is not because the decreased signaling value of degrees caused by government subsidies is captured by the markets in the form of decreased income payments to graduates. No externalities involved here.

8. (1 point) The health care specialist is talking "gain-of-function research" and "herd immunity threshold" at the meeting. Fellow analysts have no clue what she is talking about.
This is an example of:

A. Moral hazard

B. Risk aversion

**C. Informational asymmetries**

D. Adverse selection

**Solution:** The health care specialist is talking some obscurities which fall beyond their range of expertise.

9. (1 point) Because of Microsoft's dominant position in the industry, software which is as good if not better than Microsoft's might never reach the critical mass to be financially viable. This is an example of:

A. Prisoner's dilemma

**B. Bandwagon effect**

C. Race to the bottom

D. Financial dumping

**Solution:** Bandwagon effects are observed in markets which are subject to network effects. Same goes for the Facebooks and Apples of this world. Their dominant positions are shielded by their user networks more so than by the quality of their software.

10. (1 point) In some countries, doctors might only offer paid work to the public health care service. This is an example of:

A. Oligopoly

B. Oligarchy

C. Monopoly

**D. Monopsony**

**Solution:** Government is sole purchaser for doctors' services. This circumstance defines a monopsony.