

ECO 300 – MICROECONOMIC THEORY – FALL 2005  
SOLUTIONS FOR PRECEPTS WEEK 12 – DECEMBER 14

(a) This is the winner's curse. When the painter estimates the likely cost of jobs when bidding for them competitively, he makes errors and gets some estimates too high and others too low. But he doesn't win the bids when his estimates of the cost err on the high side; he is more likely to win a competitive bid when his estimate is on the low side. He finds out the actual cost of only those jobs he wins, where his estimate is too low and therefore the actual cost is higher. He never finds out about his estimation errors in the other direction.

When deciding how much to bid for a competitive job, he should realize that he wins the job only if he puts in the lowest bid; but if everyone else is bidding higher, everyone else's estimate of the cost must be higher than his estimate. He should ask "What do they know that I don't?" As a matter of probability theory, he should "condition" his estimate on the additional piece of information that everyone else's estimate is higher than that. The mathematics of how to do this is harder, but the qualitative idea of the need for such a correction to your estimate and therefore to your bid should be intuitively clear.

(b) Mozart wants to signal that he is patient, or has good alternative opportunities so he is not desperate for this job, in the hope that this will convince the emperor to offer him the job and offer a higher salary. Waiting should be a credible signal of willingness to wait, since the action is less costly for a type who is more willing to wait. (Actually his strategy didn't work. He failed to take into account the politics of the court and the coalition of mediocre musicians that opposed him. He never got a court appointment.)

(c) Yes, the act of throwing away two years can credibly demonstrate a commitment to a business career. Stanford admits only smart people, but a corporation could also presumably determine who was smart. What a corporation may be unable to determine is how committed a person is to a business career (since all job applicants will claim to have such a commitment). A corporation will be willing to pay more to hire a highly committed person. This is because a more-committed applicant is (a) likely to work harder when hired and (b) not likely to shift careers after the business has trained him or her (at a substantial cost to the firm). In order to be labeled highly committed, a person needs to take an action that only those who are committed will take. Somebody who plans to stay in the business field will be willing to devote two years to an M.B.A. because (a) spending two years learning about business will be relatively less painful to somebody very interested in business and (b) the future returns (which last only as long as the person stays in business) will eventually be large enough to outweigh the immediate cost. By contrast, consider somebody who has (private) doubts about a career in business. He may well (a) consider learning about business more costly and (b) expect that his future returns from an M.B.A. degree (which will extend only over a short time period if he decides to change professions) may not offset the immediate cost of earning the degree. Thus, those who are more committed to a business career are more willing to accept the immediate cost of getting an M.B.A. This cost difference can make an M.B.A. an effective signal of the attribute that the corporations are looking for. So it makes sense for corporations to pay M.B.A.s higher salaries.

(d) To put it very briefly, people will pretend to have too little ability and too much need. They will also try to demonstrate low ability by shirking on effort when the effort is poorly observable. Thus there is both adverse selection and moral hazard.

To cope with the problem as best it can given the facts of the lack of observability of ability and effort, the government will have to accept some inequality to give people enough reward to reveal their ability (screening by self-selection) and to make unobservable effort (incentive pay schemes). It will also have to restrict people's entitlement to welfare or public services to some extent. For example true need can be screened using handouts in kind of a form that are useless to the others (giving equipment instead of cash to the disabled). Or each time a person draws a benefit, his future entitlement can be lowered, thereby making it costly to make such a claim to the point where only the truly needy will do so. Many more ideas of this kind can be suggested and discussed.

Alternatively, the government can use indoctrination to change people's preferences so they act in the social interest; but this has not proved easy to achieve except in a few societies.