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## Time Inconsistency and Health

### Comprehension Questions

1. There is a massive body of evidence that humans prefer a fixed amount of utility now to that same amount of utility later.

**TRUE.** Several studies have documented this fact, which implies that time discounting does exist.

2. If a person discounts utility from future periods, her preferences are time-inconsistent because she does not value utility in all periods equally.

**FALSE.** Time inconsistency refers to time preferences that change from period to period, not differential time preferences in a single period.

3. Suppose an individual prefers to drink beer during college but enjoys wine more during middle age. This is a classic example of time-inconsistent preferences.

**FALSE.** Time inconsistency refers to time preferences that change from period to period, not changing preferences for different goods or activities.

4. Evidence indicates that exponential discounting functions are very rare in humans.

**TRUE.** Frederick et al. (2002) summarize the evidence that humans are not typically exponential discounters.

5. According to the hot brain/cold brain model, individuals usually have time-consistent preferences but sometimes lapse momentarily into a time-inconsistent frames of mind.

**TRUE.** In the hot brain/cold brain model, time inconsistency only arises when the hot brain takes over. The hot brain and cold brain disagree about how to value current present utility relative to future utility.

6. Contrary to the predictions of welfare economics, people are willing to pay to have constraints place on themselves.

**TRUE.** Although there are circumstances where time-consistent, rational people would place constraints on themselves (for example, in a negotiation), the widespread use of commitment mechanisms does suggest that people are not perfectly time-consistent.

7. If people demand a self-commitment device, it must be Pareto self-improving; otherwise it would not be demanded by utility-maximizing economic agents.

**FALSE.** A device might be harmful to a future self, but is still purchased because the present self benefits from it.

8. Suppose that a long-time nicotine addict who is trying to quite smoking decides he wants a cigarette, but his friends successfully restrain him. The friends' intervention has an ambiguous effect on the addict's welfare.

**TRUE.** From a classic revealed-preference perspective, any restraint on a person harms him (or at least does not benefit him). But from the perspective on the hot brain/cold brain model, the decision to restrain a hot-brained individual may actually help that individual in the long run.

9. Economists agree that any intervention at time  $t$  which improves the utility of people at time  $t$  is necessarily a good intervention.

**FALSE.** If that intervention helps present selves but hurts future selves, some economists would argue that it is not necessarily a good intervention.