

Decision Behavior: Theory and Practice (Davies, Winter 2007)

Problem set 1, due January 30, 2007

1. Provide an example from your own experience in which actions could be said to have been rational even though the outcome was not the best that could have been achieved.
2. Construct an example of a syllogism, other than the one given in class, that people are likely to get wrong because it has multiple models.
3. Prove that if P is a preference relation that defines I as an indifference relation, then I is transitive.
4. Prove that the lexicographic preference rule defined in 3.1.13 is a preference relation.
5. Design an experiment to test whether people lexicographically prefer human life over some other factor, such as animal life.
6. Prove 4.1.4.
7. Prove 4.2.6
8. Construct an example experiment in which you would expect subjects to violate the disjunction rule.
9. Formulate and prove the conjunction rule for conditional probability.
10. Show using Bayes's rule why the correct answer to the cab problem is .41