

homework #7, due 11/20/08

1. AS&B exercise 2.4
2. Discuss where the proof of Arrow's theorem breaks down if N is infinite.
3. Does May's theorem break down if N is infinite?
4. What happens with Arrow's theorem when the Pareto property is dropped? What about Gibbard's theorem?
5. Consider the following weakening of positive responsiveness:
Nonnegative responsiveness: For all $\theta, \theta' \in \Theta$, if $xR(\theta)y$, $R(x, y|\theta) \subset R(x, y|\theta')$, and $P(x, y|\theta) \subset P(x, y|\theta')$, then $xR(\theta')y$.
Assume N finite, $|X| = 2$, and $\Theta = L(X)^N$. Characterize the set of rules satisfying anonymity, neutrality, and nonnegative responsiveness.