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**Lecture 30: Public Goods**

1. Public Goods
   1. People often invoke the phrase “public good” when making an argument for the government support of various programs—health care, museums, and so forth.
   2. There is, however, a very precise definition of public goods in economics. Public goods are *nonrivalrous* **and** *non-excludable*.
   3. A nonrivalrous good is a good whose use by one consumer does not deny another consumer from enjoying the good. Most goods are rivalrous—coffee, plane tickets, desks, pencils. But some goods are nonrivalrous—information, light (from a lighthouse or torch), and security systems are examples.
   4. A non-excludable good is when it is not economical to exclude people from using it—notably if they had not paid for it. Again, most goods are excludable—computers, attendance to theme parks, hotel rooms. But some are not—public parks, highways, and beaches.
      1. In practice, excludability changes as costs change. *In theory* it is possible to exclude non-tax payers from using the highways and even more possible to exclude them from using a city park. But the costs make it prohibitive in practice.
   5. Note that there are goods that squarely fit in one category and not the other. The formula for Coca-Cola is nonrivalrous (me knowing it does not make it harder for you to know it) but excludable (it’s kept in a safe somewhere). A public beach is certainly non-excludable (you can’t effectively police against non-taxpayers) but it is often rivalrous (your consumption takes away from my enjoyment because it gets more crowded).
   6. Public good have to be both: national defense, attractive buildings, the light from a lighthouse, police patrols, and so forth. In each case, the costs of exclusion are prohibitive and the marginal cost of adding an additional user is zero.
      1. Note that some things people call public goods—such as education and health care—don’t fulfill either criterion.
   7. Because of their nature, public goods often suffer from *free riders*—people who don’t contribute to make the good but still consume it. If the Department of Defense just *asked* the American people to send them a check, most won’t do it. They will free ride off of other people’s contributions. Thus public goods often have to be provided by the government.
      1. Puzzle: Attractive buildings are public goods yet we have many nice buildings without government support. Why?
   8. Is illegally downloading media the same thing as stealing from a store?
2. Club goods
   1. We can divide all goods using the metrics of rivalry and excludability.
   2. Here’s a table:

|  |  |  |
| --- | --- | --- |
|  | *Rivalrous* | *Nonrivalrous* |
| *Excludable* | Private Good | Club Good |
| *Non excludable* | Common Good | Public Good |

* 1. Most of these goods you are familiar with save club goods.
     1. A *club good* is a good that’s excludable, but nonrivalrous (until congestion).
     2. Examples include golf courses, cable television, and technology (with regards to patented technology).

1. Religion
   1. Eastern religions, especially polytheistic ones, are like private goods. They exclude people by requiring they pay a fee for a product or service. Any single god is very specialized, requires low levels of commitment, and rarely requires sacrifice.
      1. Thus they don’t suffer from the free-rider problem, either. There is no larger group to free ride off of.
   2. But Western religions are like club goods: they can exclude people and their participation is nonrivalrous. That they are excludable is notable. They could not survive if they weren’t excludable.
      1. If they weren’t excludable, their congregations would suffer from free riders. People would come to the sermons and not contribute money. They could enjoy the atmosphere for religiosity without feeling particularly faithful. They could feel like they are being part of an organization doing good works without doing anything themselves.
      2. Knowing there are free riders in their midst, the truly devote will leave. The religion will die out.
   3. It’s a bit rude to kick people out of a holy place but you can exclude people in more subtle ways. Economist Larry Iannaccone (1992) argues that churches pull this off through “sacrifice and stigma.” They require church/mosque/temple goers to perform certain functions that people who are not true believers would find boring or distasteful.
      1. In that way, it becomes a club good.
   4. Religions require sacrifice to sort out the riff-raff and that can manifest in different ways. One of the things it forces people to sacrifice is diversification.
      1. All monotheistic religions require you renounce all other religions.
      2. This is a big issue for the faithful: people are diverse and many things may factor into what someone wants out of a religion. At the very least, all religions claim to be right but the contradictions between them suggest they both can’t be right. It would be nice to hedge your bet and make a sacrifice to Odin on the occasion. Just in case.
      3. But anyone who is willing to do that is not a genuine member. They might free ride. So congregational-based religions not only make you disavow other religions but they also emphasize their universality. All answers are in the one and only God.