

Conflict, Cooperation and the Common Good

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Conflict

- Fight or flight? Why not settle?
- Negotiating a settlement avoids the costs of war or strike or demonstration or policing.
- Where there is a large conflict of interest, settlement is generally delayed.
- One exception is where there are more than two sides: international trade, carbon emissions.

Resolution

- In these multi-sided examples, there is also a strong element of common interest.
- Maybe in some industrial conflicts too.
- There are cases where parties fight rather than negotiate even when they appear to have little direct interest in the battle: UK in the two World Wars.
- Many reasons for battle rather than settle.

The Good and the Bargain

- One reason for battling: the pursuit of what is right rather than what is in the selfish interests of all parties involved.
- I shall consider this contrast by comparing “bargaining solutions” and “welfare maxima”.

Nash's Theory

- Two parties, who have to agree on actions that affect one another. Sharing a cake, say.
- If no agreement is reached, fall back to a basic state.
- There are many possible outcomes. “Frontier” outcomes are as good as possible for each, given what the other gets.
- There are still many frontier outcomes. Which will be chosen?

Examples of Bargaining

- Two countries might agree on shares of a disputed territory.
 - No-agreement outcome: fighting
- Negotiated agreement on carbon-gas emissions. Outcomes could be measured, by discounted future national incomes.
 - No agreement: Large increase in global temperature.
- Independent action in self-interest is not frontier.

Measuring Outcomes

- Must measure the value of possible outcomes.
- For countries, national income could be used, but is not very satisfactory.
- Nash used “utility”, measuring an individual’s well-being in different circumstances.
- Ask: “On a scale of zero to ten...?”
- Or: “How much should you save?”
- Or: “What will you pay for insurance?”

Nash's Assumptions

- A frontier outcome, better for both than their fall-back positions, will be chosen.
- If X would be agreed to out of a large set of alternatives, it would still be agreed to if some of the other alternatives were not available.
- If the available outcomes measured by utility are symmetric, meaning that if any (u, v) is available, then so is (v, u) , then the agreed outcome will provide equal utilities.
 - (You can multiply each person's utilities!)

Nash's Conclusion

- There is a single agreed outcome.
- It maximizes the product of the utility gains, compared to the no-agreement outcome.
- He also showed it is the stable outcome of a negotiation where the parties had to make proposals that would come into effect if and only if they were mutually compatible.
- It enables cooperation among people or peoples who count only their own interests.

Assessing welfare.

- Some – utilitarians – would use utility to compare different people's welfare.
- They would assess utility in such a way that you could add up *different people's* utility.
- People will disagree about proposed measures, but there is sufficient similarity among people to make the idea useful.
- We can then talk about an optimal outcome, maximizing the sum of utilities.

Altruism and Optimality

- Most negotiators have a degree of altruism.
- And there is an overall framework of law, principle, external interest, honour.
- Example: UK's entry into the two World Wars.
- Example: Environmental discussions, e.g. about preserving trees or animal species.
- Can be expressed as utility maximization.

Ignoring Optimality

- Many wars happen when only group interest counts – e.g. American civil war.
- It seems particularly difficult to settle what is optimal in disputes about land or territory.
- But even when there is no altruism, there may be great advantage to everyone in agreeing common action, where each plays a part.
- That is what a bargaining solution achieves.

Nash versus Optimal

- Suppose we think it best to maximize the sum of utilities.
- That is almost always a different outcome from a Nash bargaining solution.
- It could well result in some parties being worse off than their basic positions.
- E.g. think of one year's taxation as the outcome of a Nash bargain: clearly impossible.

Negotiating Over Climate Change

- Published discussion is mainly about optimal global emissions, not allocation among countries, or people.
- The argument that each country should tax emissions at a rate equal to the estimated damage to future world GDP is an optimality argument.
- It is probably not frontier, and maybe not an improvement for all.

Nash Bargaining for Global Warming

- Nash theory is about two people who have to reach an agreement.
- Global warming policy could involve over a hundred parties.
- Costly now to reduce emissions, then all gain in future – some very little, most a great deal.
- Membership cannot be enforced.

Defining the No-agreement State

- Since the bargain is to be fair, neutral, and rational, the fall-back for each country could be the result of independent action.
- But the true fall-back is what you get if you leave the bargain.
- Probably each party would be better off outside. Then no bargain.
- A bargaining solution that is worth having requires unselfish decisions to participate in the negotiation. Optimality is essential.

Nash and Free Riding

- Most countries presumably joined the Kyoto negotiation, because it was right to do so, not necessarily in their national interest.
- Allocation of emission commitments was not based on any principles, e.g. Nash Bargaining.
- Countries may therefore feel the targets lack legitimacy.
- There is some (partial) free riding.
- And countries mainly do not observe their commitments.

Side Payments

- Subsidies are to be paid under current global-warming agreements.
- Monetary transfers should be a feature of the Nash bargaining solution.
- They could be a way of encouraging participation by parties that would not otherwise join the agreement.
- They can be used to help end fighting sooner.

Principles

- Negotiation about details can do a lot of good. But it might be better to adopt general principles, e.g. estimation of a Nash solution, with all parties accepting the outcome before it has been calculated.
- They might accept a way of calculating an optimum, in a way that gives weight to national interests.
- Using augmented GDP is one way.

Conclusions

- Bargaining may be optimal.
- Worthwhile bargaining often requires optimality.
- A good game needs rules.