Kluwer Mediation Blog

Revisiting the games people play

Charlie Woods (Core Solutions Group) · Tuesday, April 8th, 2025

"We are used to thinking about competitions in which there is only one winner….But the world is rarely like that.. The key to doing well lies not in overcoming others, but in eliciting their co-operation." Robert Axelrod

Zero-sum thinking (one can only improve one's position at someone else's expense) seems to becoming ever more prevalent in some quarters. It is perhaps time to revisit game theory and the work of Robert Axelrod and others who have studied the evolution of cooperation to be reminded that a positive-sum world is both possible and essential.

Game theory analyses strategies that 'rational players' use to secure the best outcomes in interactive, interdependent 'games', where the outcome for each participant depends on the actions of all and the players don't know what each other will do but know what they could do. Thomas Schelling summarised it as follows: *"an attempt to formalise any kind of study of strategic behaviour where people are trying to affect or anticipate the behaviour of others"*

The classic game is 'The Prisoners' Dilemma', formulated as follows:

- Two suspects are arrested on suspicion of a crime, for which there is no clear evidence
- They are locked in two separate rooms with no communication between them allowed
- There are three possible outcomes:
    - one confesses and one doesn't – the confessor is pardoned and the other imprisoned for 5 years
    - both confess – both imprisoned for 12 months
    - both maintain innocence – both imprisoned for 1 month on a minor charge

The 'rational' outcome is both confess to minimise the risk of a very long sentence, even though a better outcome is possible if neither did – hence the dilemma.

This outcome is sometimes known as a 'Nash Equilibrium' (after mathematician and game theorist John Nash, portrayed in the film 'A Beautiful Mind'), in that once a strategy is chosen neither side can then independently change their strategy without ending up in a less desirable position. As one obituary of Nash put it "*there is at least one Nash equilibrium lying in wait to trap us in every situation of competition or conflict where the parties are unwilling or unable to communicate*".

Axelrod's classic book 'The Evolution of Cooperation' was published over forty years ago and now seems more relevant than ever. In it he used the Prisoners' Dilemma as the basis for a series of

tournaments to see which was the most successful strategy if the game was repeated indefinitely (as opposed to the usual one-off event). The winning 'Tit for Tat' strategy was in many respects the simplest – cooperate on the first round and match the other player's move in every subsequent round.

Axelrod describes this winning strategy as: nice (don't defect first), provokable (respond to defection, don't be a pushover), forgiving (perhaps most importantly, don't bear a grudge if the other player changes behaviour) and clear (minimise the chance of misunderstanding) – an approach that can be applied in many real life circumstances.

The pursuit of this strategy leads to the evolution of cooperation. Key factors in this process are reciprocity, concern for the future (it casts a long shadow in Axelrod's terms) and a clear memory of the past. In the real world, where players can interact, good communication also plays a vital role in avoiding misunderstandings, widening perspectives and generating cooperation.

When cooperation evolves it crowds out zero-sum thinking and leads to a greater concern for the achievement of mutual gains. This allows for such things as division of labour, sharing of risk, economies of scale, trade and public good production. It also allows trust to flourish and minimises the costs of non-productive activity needed to ensure compliance and guard against cheating, although some safeguards will still be required. Put another way cooperation boosts productivity and supports economic and social development.

The one important caveat to this is when dishonest cooperation leads to monopolies, corruption and other practices that extract value rather than create it and concentrate it in relatively few hands, as this article on the 'Guilded Age' demonstrates. This highlights the need for 'cheater suppression' mechanisms, particularly where cooperation is scaled up. This is one of the three principles of cooperation across many types of systems identified by Athena Aktipis in this fascinating paper. The other two are the ability to walk away from uncooperative partners (a twist on the Tit for Tat strategy) and that resource sharing should be based on the needs of the recipient.

It could be argued that sharing the fruits of economic development more equitably might be considered zero-sum, as those less well off improve their circumstances at the expense of those with more. However, evidence from more egalitarian societies suggest that the benefits of sharing are felt by all in terms of greater trust, cohesion, health, safety and overall wellbeing. On top of this a more equitable distribution could well have more quantifiable economic benefits across the board given the varying propensities of different income groups to consume and save.

A recent blog by Kenneth Cloke reminds us of the Thomas-Kilmann model of responses to conflict, which illustrates that cooperation in pursuit of the interests of all parties is the most effective form of dispute resolution. Cloke describes this collaborative approach as: *"collectively, creatively, or caringly (i.e., in a combined self- and other-oriented, interest-based way) with maximal concern for both people and results."* He also develops the approach further to demonstrate how zero-sum thinking can quickly become negative-sum as conflicts escalate and damaging others becomes as, if not more, important than pursuing one's interests.

Much work on cooperation is built on micro foundations, yet the issues that confront us as a species are profound, multi-national in scale and well beyond the reach of any one nation, no matter how powerful (e.g. climate change and offshore tax avoidance), making the need for global cooperation even more imperative. As Bertrand Russell put it: "*The only thing that will redeem*

mankind is cooperation … it is common to wish well to oneself, but in our … unified world, wishing well to oneself is sure to be futile unless it is combined with wishing well to others."

At times of crisis turning inwards to try to protect what's close to you is very tempting, but can be counter productive. The dangers of overly focussing on one's own interests are graphically illustrated in a quote from Charles Kindleberger's history of the economic crisis of the 1930's: *"When every country turned to protect its national private interest, the world public interest went down the drain, and with it the private interests of all."* In contrast, while not perfect, the international institutions set up in the aftermath of the second world war have been a demonstration of what can be achieved through greater cooperation.

The benefits of deepening cooperation through building trust, improving communication, testing assumptions, finding common ground, exploring ways forward and seeking mutual gains will come as no surprise to those involved in mediation. Zero-sum thinking is self defeating in almost all contexts, particularly when it spirals into a negative-sum abyss. Generating more positive-sum thought and action is vital for the future – we should look for every opportunity to plant and nurture a few seeds.

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