FORUM

Cooperative Problem-Solving and Education

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ABSTRACT Debates in education are often polarised by those who want students to be firmly told what they should take on board, and those who insist individuals learn best if they were liberated from all forms of collective arrangement (such as an education authority). Some politicians even fluctuate between the two sets of views without any underlying rationale. However, there is substantial evidence that people actually increase their understanding most effectively when they learn through cooperative problem-solving. This article sets out what is involved in cooperative problem-solving, why it should be adopted more widely and how it can be extended in practice.

Introduction

Educators – teachers in schools, tutors of lifelong learning, and guides to organisational and social development – have a key role to play in raising our understanding of how problems can be effectively tackled without disagreement perpetuating inaction, or worse, turning into bitter conflicts.

'Cooperative problem-solving' is a term adopted by a group of academics and practitioners to distinguish it from both authoritarian approaches that insist that answers should be accepted unquestionably from people in elevated positions, and laissez-faire arguments which assume the best solutions will always come from individuals left on their own to work things out.[1]

Although authoritarian and laissez-faire attitudes may strike a thoughtful minority as outmoded, they have continued to dominate political headlines, policy shifts, and social commentary. For example, problems in schools are often blamed on teachers not possessing or exercising total authority in dealing with their pupils; similarly, business under-performance is routinely attributed to bosses not being able to make decisions without having to address issues raised by their workers. At the opposite pole, the complete freedom from control is demanded when governments are told to leave firms and individuals alone to

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make their own choices so that the economy can thrive; and along the same line, the European Union is perennially accused of getting in the way of nation states which would allegedly be better off if they were allowed to act on their own without any transnational ties.

By contrast, cooperative problem-solving focuses on empowering all those affected by any given challenge to work together on reciprocal terms to discover what would most meet their needs overall. By enabling others to learn more about why and how to secure the wider use of cooperative problem-solving, educators can significantly improve the way we deal with the social, economic and political problems we face, and strengthen the intellectual foundation of a genuinely democratic form of life for all.

This article will look at four aspects of cooperative problem-solving that are particularly relevant to educators. First, the characteristics which distinguish cooperative problem-solving, not just from authoritarian and laissez-faire modes of interaction, but from superficially inclusive collaboration that in fact lacks some of the key elements. Secondly, an overview of the effectiveness of cooperative problem-solving backed by a selection of examples drawn from a wide range of activities. Thirdly, an examination of the argument that, given the nature of human disposition, people would only ever be receptive to cooperative problem-solving in a small minority of cases. And finally, what educators should do to help others safeguard and extend the application of cooperative problem-solving in society.

The Characteristics of Cooperative Problem-Solving

The cooperative problem-solving approach has been shaped by the experience of finding a more effective and sustainable way to deal with potentially divisive challenges. Drawing from the lessons in the development of collaborative scientific research, democratic political decision-making, and inclusive management that gives all stakeholders a meaningful say, we can delineate the key elements of this approach.

First, cooperative problem-solving enables those involved to explore how a specific problem of concern to all of them can be solved. Implicitly (where they have worked together effectively as equal partners over time) or explicitly (where it is likely a competent facilitator is needed to ensure no one could exert any power advantage over others through the use of threat, coercion, bribery, or any other form of corrupt influence), ground rules require respect for all; give everyone an appropriate amount of time to express their thoughts and feelings without allowing any undue monopolising of the discussions by one or more individuals; and exclude abuse and malicious disruption.

Secondly, once the initial emotions and views have been openly shared, consideration is systematically given to the input from any relevant witness, expert, and those with related responsibility to explain to participants what possible solutions there might be. After listening to the pros and cons of going along with different options, and what constraints there might be to taking

other courses of action, the participants are able to ask each other and invited specialists any relevant question to advance their understanding of how their shared problem may be tackled. The process is structured so as to prevent anyone using their status, resources, or access to tools to manipulate opinions, to intimidate or mislead others.

Thirdly, participants are encouraged to contribute any suggestion of their own, and question those formulated by others, before considering how those which convince them as the most promising are to be ranked in order of priority. At this stage, participants have the opportunity to learn from one another what additional implications they might have to deal with if particular options were chosen. Instead of individuals simply voting for whatever they think would suit themselves personally, they are to give due consideration to what others might gain or endure before giving their support for any given option. Whereas, under exploitative pressures, to compromise is often to concede as a result of one's weak bargaining position, to compromise with others who have an equal say is to engage in reciprocal give-and-take that is at the heart of authentic cooperation.

Fourthly, on the basis of the options shortlisted, participants use the selection process they have agreed to (by majority vote, entrusting to delegates, or unanimous vote – which method to use for different situations can itself be addressed by cooperative problem-solving) to choose which solution they back, agree to the responsibilities each has to take on, and plan ahead for reviewing how well the solution works in practice. The ongoing feedback will then guide future assessment on whether the adopted solution is to be retained or revised.

These generic features of what we have termed 'cooperative problem-solving' are what underpin collaborative scientific research, democratic decision-making, community development, and cooperative enterprise. Without them, instead of reaching a free and informed consensus of what are justifiable claims, society would end up either mired in dogmatic assertions or perpetually held up in a state of suspended belief. Similarly, electoral processes without these elements are often reduced to a personality contest or a competition in propaganda output. And many residents feel they have no say over their locality because no one takes their concerns seriously, while most workers are familiar with being treated as a mere cog when their employers do not regard them as having a share in the business in any sense.

Public policies and private actions can both be judged in terms of how far they promote or hinder the conditions for facilitating cooperative problem-solving. For example, Consensus Conferences have been run by the Danish Board of Technology to incorporate the considered views of citizens in its assessment of new and often controversial scientific and technological developments. Such conferences have led the Danish Parliament to exclude transgenic animals from the first governmental biotechnology research and development programme.[2]

Deliberative Opinion Polls, devised by James Fishkin, have been used in the United States of America and other countries to provide civic decision-

makers a source of information based on what people think, not as isolated individuals without any relevant knowledge, but as citizens deliberating together in light of the key evidence and testimony.[3] The Healthy Communities Initiative has spread from Canada and a number of European cities with the help of the World Health Organisation (WHO). The Colorado Communities Health Initiative, for example, brought citizens together through a state-wide council to steer legislators on the priority issues to address and projects to support (ranging from land use, teen issues, support for elderly people).[4] Since the 1990s, Participatory Rural Appraisal has been used in over 100 countries across Latin America, Africa, Asia and Europe, whereby people who are meant to benefit from development programmes get to play a central and informed role in shaping the design and delivery of those programmes.[5]

Provided they retain the key elements outlined above, cooperative problem-solving in different forms can bring people together to find out what would really be in their common interest, reconcile contrasting viewpoints and even hostility, and provide a level playing field for inclusive and deliberative exchanges.

Understanding the Effectiveness
of Cooperative Problem-Solving

One of the main reasons why cooperative problem-solving is not more widely adopted is the frequently made claim that what it costs in time, resources and disruption to established power relations, outweigh the benefits it might bring. To raise understanding of why this is misconceived, it can be considered more closely in general and specific terms.

In general terms, it has been observed that the approach of reciprocal cooperation delivers the best overall results in diverse forms of human interaction. Game theory analysts using tools such as the 'Prisoners' Dilemma' tests have been able to demonstrate that a cooperative strategy – always being ready to help others, and continuing to provide that help so long as others reciprocate with commensurable help in return – tends to produce the most beneficial results for the participants.[6] For those attempting to exploit others by not reciprocating, they may gain a relative advantage in the short term, but they still lose out when what they manage to secure is ultimately less than what they could have obtained by cooperating with others.

These findings are further confirmed with the help of computer models, tracking the gains in terms of being helped by others and losses in terms of being ignored or penalised by others in relation to one's readiness to help or penalise others over varying lengths of interactions. Most people are inclined to follow the cooperative strategy and secure the greatest mutual benefits. A minority, however, prefer to rely on accepting help from others while constantly seeking to avoid giving help in return, and they are the ones who routinely perform the worst in terms of actually securing the least benefits for themselves.[7]

If the game theory analysis is too abstract in the general claims it makes, we can look at more specific areas where the effectiveness of cooperative problem-solving has been widely recognised in relation to alternative approaches. Let us take five types of example from education, enterprise, regeneration and development, service prioritisation and improvement, and conflict resolution.

Education

Students and teachers gain from a learning environment where key issues are addressed through cooperative problem-solving. Research commissioned by the Esmée Fairbairn Foundation and the Carnegie UK Trust into the impact of student participation in schools and colleges [8] found that:

- students in more democratic schools were happier and felt more in control of their learning;
- where students gave feedback on teaching, it had the twin effect of teachers' practice improving and students gaining in awareness of the learning process;
- participation enhanced skills of communication and competence as a learner;
- disruptive behaviour in class was reduced.

This has been reinforced by members of the Association of Teachers and Lecturers (ATL) who have confirmed that well-structured participation which genuinely gives voice to students leads to increased self-confidence and feelings of empowerment, and a greater sense of responsibility. They point to children's insight into the ways they learn best, and the ideas they have for changes to lesson content or style, and to the life of the school, in order to meet their needs. Many also identify a positive impact of student participation on their own work. Furthermore, student involvement in decision-making is considered welcome in relation to resources and equipment, school rules, timetabling and uniform, as well as extra-curricular activities and pastoral issues, such as behaviour policies and practice.

Organisations such as Pupil Voice in Wales have reviewed existing research and concluded that student involvement in decision-making is likely to lead to better relationships, more relevant and effective policies, and better learning. The benefits extend to interactions with the wider community, while familiarisation with democratic deliberations improves skills and confidence for civic engagement.

In higher education, there is also growing expectation that universities need to engage the wider public in shared deliberative processes to improve the understanding of researchers and citizens more generally. Academics who produce their findings in isolation are likely to encounter passive disinterest or even strong distrust from others who have had no involvement in their research agenda. However, systematic involvement of the public in discussing the problems research is being designed to address and how a solution may be

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reached, can transform a deep sense of public remoteness towards incomprehensible 'experts' into a mutually rewarding learning experience.[9]

Enterprise

Although many business leaders still behave like monarchical rulers of the past in insisting that they cannot concede to the 'anarchic' demands of granting everyone involved in their business an equal say, cooperative and other forms of worker-led enterprise have shown that democratically run organisations function better both socially and economically. Not only have cooperatives like Mondragon in Spain, and others in Italy, France, and the United Kingdom (UK) steadily grown for decades [10] they have weathered the severe economic downturn better than their undemocratic counterparts.

In the UK, the deeper resilience and readiness to learn, stemming from a culture of cooperative problem-solving, helped the cooperative sector to grow while the economy as a whole was plummeted by plutocratic policies into a double-dip recession. Between 2008 and 2011 the number of cooperatives grew by 23% to nearly 6000, while individual members grew by 19.7% to 13.5 million. During that period, as the UK economy shrunk by 1.7%, the turnover of the cooperative sector expanded by 19.6% to £35.6 billion.[11]

Semco in Brazil has demonstrated since 1983 how entrusting workers with an equal say improves morale, productivity, adaptability and the long term success of the business.[12] It is the workers themselves who deliberate together and agree on key decisions from pay rates and pay differentials, production arrangements, to strategies concerning investment or development into separate autonomous units.

Workers who are respected as an equal member of a firm are willing and able to deliberate with others in guiding the direction of their business. Instead of short term profit for shareholders constantly threatening to take their money elsewhere (thus cutting investment for the business), workers are prepared to build up long term capital, not only for themselves, but for other cooperative businesses which may become important suppliers and/or customers in the future. They are ready to extend the application of cooperative problem-solving to federation and consortia structures which promote wider cooperation and solidarity with other cooperatives, thus widening the pool of goodwill, advice and direct support. These factors, along with needing less time and resources for inspection and supervision, account for the more effective performance of cooperative enterprise in general.

Regeneration and Development

Poverty, neglect, and inadequate infrastructure have posed perennial challenges to regeneration and development projects in rich and poor countries alike. In many instances in the past, experts have planned such projects while professionals are then entrusted with delivering them. They are then surprised

to find that what they have put in place fail to address local needs, and quickly cease to provide much benefit without the support of the people they are supposed to serve.

International development has come to recognise that the cooperative participation of those living in the targeted communities is essential to its success. So long as the engagement is one that leads to the meaningful involvement of residents as equals, and not gives some a privileged seat while interacting with others just tokenistically, it increases the likelihood substantially that the options chosen would deliver what local people really need. Residents of poor communities understand what hurt them most, and what would galvanise people in backing changes that would really help them. Being cooperatively involved in devising the solutions also means that they take ownership of those solutions and are more prepared to help implement them on the ground.

One of the most frequent objections to opening up development to cooperative problem-solving is that it would add to the costs because it would take so much longer to organise. However, the World Bank and other leading development agencies have found that any increase to the initial planning and management costs are more than compensated by savings in the later stages of the projects. Furthermore, there are significant efficiencies in avoiding wastage of project funds that fail to deliver, and not having to make costly corrections.[13] The Food and Agriculture Organization (FAO) has recommended that agricultural cooperatives should be given a central role in food security and poverty reduction. Not only would they help to engage communities in democratic decision-making, they are more disposed towards joining forces with others in speaking with a single voice and increasing their communities' influence in policy making.[14]

The same principles apply in developed countries, and regeneration work in the UK, for example, has achieved higher impact and better sustainability where local communities are empowered to contribute to the deliberations and decisions that shape the changes brought to their areas (e.g. reducing unemployment and improving the local environment with the help of resident engagement carried out by Include Neighbourhood Regeneration in Liverpool, or Great Yarmouth's neighbourhood level partnership).[15]

Service Prioritisation and Improvement

People's trust and satisfaction in public services correlate with how extensively they have been engaged in cooperative problem-solving as partners of the public bodies in question. On top of this, effective participation improves prioritisation and reduces wastage. The National Audit Office stated that:

> community participation is vital in ensuring value for money in
> public services. Services designed and delivered without community
> input risk wasting public money because they will be unused or
> underused if they are not what people need. Local people must have

the opportunities to identify their needs and contribute to finding solutions, rather than feel powerless in the face of public authorities that deliver services on their behalf.[16]

Participatory Budgeting, originating in Brazil as to a tool to enable people living in poor areas to have a real say over how public funds are to be spent to meet their needs, has been adopted in the UK by many local authorities. Not only do people gain a greater sense of ownership and satisfaction with the spending priorities they help to shape, feedback has consistently shown that the participatory process has engendered a new sense of solidarity amongst those involved.[17] Far from people with contrasting characteristics refusing to listen to each other, young people were found to suggest switching provisional allocations to projects for elderly people, and whites and Asians offered support for one another's proposals after hearing why they were needed.

The use of 'Audit to Action' technique, involving bringing police and elected councillors together with the residents of the areas being policed to discuss crime reduction priorities and options, has in many parts of the UK led to closer collaboration between public officials and citizens, and significantly reduced crime and the fear of crime. In Bexley, London, for example, crime fell across the board, while the percentage of residents of the neighbourhood in question feeling safe after dark went up from just 22% to 93%. In Birmingham, its deployment in five targeted wards over a fifteen month period reduced crime across those areas by an average of 14%, twice that of other comparator areas, and cut dwelling house burglary by 41%, over three times the rate in other parts of the city.[18]

The Commission for Healthcare Audit and Inspection reviewed the evidence and concluded that there is 'a remarkable consensus among patients, the public and [NHS] trusts on the benefits of effective engagement – people and communities feel valued and health services provide better care'.[19] This important observation is basically true of all public services – from tenant involvement in housing management to resident participation in neighbourhood improvement.[20]

Conflict Resolution

Although it is sometimes suggested that cooperative problem-solving only works with people who are not divided by serious differences, it actually has an excellent track record in enabling people to resolve their differences. For example, the technique of 'Planning for Real' (devised by the Neighbourhood Initiatives Foundation) has been frequently used to deal with divisive planning issues affecting neighbourhoods. Residents and businesses, who cannot at the outset agree on what they want or oppose in draft plans put forward, are invited by Planning for Real facilitators to build and use a 3D model of their neighbourhood as a focal point to exchange ideas on their preferences, their reasons, and scope for revisions. The result is a reciprocal, informed give-and-

take that gradually enables people who had at the outset taken quite different positions to sign up to a revised plan.[21]

In cases where the differences have manifested themselves in heated disputes, the technique of Community Conferencing (pioneered by the Thames Valley Police) has been deployed with the help of a trained police facilitator going into an area where residents in a neighbourhood have had serious disagreement with each other. The facilitated discussions enable all concerned to explore possible solutions, consider their implications, and try out mutual commitments to find a way forward.[22] In most cases the original dispute is displaced by calmer relations. Thames Valley Police invested in the use of the technique because it was far more effective and less costly than alternatives such as repeatedly sending police in to prevent tension from erupting into violent disorder.

Even where differences have passed into deep-seated hostility, cooperative problem-solving has proven to offer a way back for the affected parties. For example, with the help of Restorative Justice, pupils who have committed harmful acts against others in a school have been brought together by a facilitator with those who fear or resent them. They discuss the problem of the damage which has been done and explore how relationships can be restored. Both the perpetrators and victims have a chance to offer solutions. Research found that 93% of these facilitated sessions led to an agreement on what changed behaviour should be adhered to, and in 96% of the cases the agreements were kept.[23] The problem-solving efficacy of this approach is substantially higher than the conventional techniques of standard punishment such as detention, exclusion from school, or the crude insistence that the perpetrator is to issue an apology. Offences are seldom repeated, and the confidence of all concerned in more relaxed and respectful relations in the future is enhanced.

Understanding the Cooperative Disposition

The examples outlined above show that the cooperative problem-solving approach can be highly effective if consistently applied. However, amongst political advocates and social commentators, there is still no shortage of those who either insist that society can only function properly if people were disciplined by strict authoritarian rule, or demand that problems are left to individuals to deal with on their own, or in the case of the plutocratic-minded, strict discipline for the poor and total freedom for the rich. One commonly deployed anti-democratic argument over the previous 200 years has been that people are only willing to work together in this manner in a small minority of cases. From Herbert Spencer to Milton Friedman, the neo-classical economic model of human behaviour posits individuals who in the great majority of cases prefer to pursue what they calculate to be in their own interest rather than enter into collective arrangements with others. People should, on this account, be left alone except when their behaviour is so intolerable that they should be

punished by a higher authority. This is the foundation of the Nozickian minimalist state – tough on crime, and intensely relaxed about people getting extremely rich (or poor).[24]

But this view of human nature should not go unchallenged. To begin with, anthropological studies have found that human beings in the most primitive state were already inclined towards cooperating on equal terms with each other on the broad understanding that others would reciprocate. While uncooperative individuals on their own and social units that disintegrated through lack of mutual trust and support fell by the wayside, cooperative groups developed an evolutionary advantage and thrived.[25] Far from being instinctively disposed towards looking after their own personal interests and acting without due regard to the consequences upon others, tribes exemplified their members' readiness to look out for one another. Inter-tribe conflicts sometimes arose from lack of mutual understanding, but where trust had managed to take root, tribes often cooperated informally or even merged to form larger cohesive social units.

Even when the emergence of large scale agricultural civilisations gave rise to sharp hierarchical divisions between ruler and subjects, masters and servants or slaves, men and women, privileged aristocrats and everyday workers, the rich and the poor, the growing threat they posed to the cooperative mode of interaction fuelled deeper moral reflections that led to the critical refinement and articulation of the Golden Rule in all civilised societies: people were to treat others as they would have others treat them. In the midst of diverse religious doctrines and cultural codes, the Golden Rule was adopted everywhere as the core ethical guide.[26]

Contemporary developmental psychology has found that it is the much longer standing cooperative mindset, rather than the divisive hierarchical mentality, which remains firmly embedded in human disposition. Without the need for instruction, offer of reward, or threat of punishment, children from the earliest age exhibit a consistently cooperative mode of behaviour.[27] Infants are so naturally helpful to others while expecting others to be helpful to them, that to protect them from potential predatory adults, children have to be explicitly told not to trust complete strangers. Suspicion that someone may not reciprocate one's helpfulness may lead one to holding back from cooperation. And the factors which could give rise to that suspicion may help to explain why cooperation can breakdown in practice.

First, one can be ignorant of the intentions of another person, or of the likely effects of the complex arrangements being proposed, especially if they would involve a large group of people including many who are relative strangers. Secondly, through trauma or instilled prejudice, one can become morally insensitive towards one or more groups of people – ceasing to see them as one's fellow human beings. It is a sad fact that when a child's readiness to help others is repeatedly or randomly met with indifference, neglect, or even aggression, that child is at risk of becoming disposed to adopt a similar stance towards other people, including those who try to be helpful to them. Thirdly,

power inequality can leave those in disadvantaged positions to think, not without reason based on their experience, that their efforts to help others would not be accorded equal respect or properly reciprocated. They may have to do what they are asked to do because the threat of force or destitution leaves them little choice, but they would not be acting in a spirit of cooperation.

How to Safeguard and Extend Cooperative Problem-Solving

As cooperative problem-solving can be more effective than the alternatives in finding answers for society, and contrary to the false assumptions of neo-classical economics, it is what people are generally disposed to engage in, it ought to be promoted as widely as possible.

However, in recent decades the opportunities for cooperation have been increasingly stifled by the plutocratic drive to release businesses from a duty to serve the common good; make workers increasingly powerless to question corporate decisions; redistribute resources from the poor to the rich; demutualise building societies and friendly societies; exacerbate the plight of the poor by cutting down collective support; and undermine the mutual security guaranteed by the public sector by privatising more and more of it to profit-makers unencumbered by any wider responsibility to cooperate with those whose lives they affect. In response to this development a communitarian critique emerged to demand a new focus on developing communities capable of cooperating in tackling common concerns.[28] (This is not to be confused with political rhetoric carelessly labelled 'communitarian'.[29])

As the wealthy elite amassed more power to shape decisions to favour themselves, often at the expense of others, a growing majority were losing their job security and family stability (because of the intensifying demand for greater labour flexibility). The latter found that even when their productivity went up, their share of national income diminished. If the trends of limiting the use of cooperative problem-solving are to be reversed, then society needs to attain a much higher level of awareness and understanding of how the barriers to cooperation can be removed. For any given community, neighbourhood, or organisation, all those connected with them should learn how to transform prevailing arrangements so that they can engage as equals in shared deliberations regarding what they think are problematic, what they make of the available evidence and testimony, what suggestions for change are to be put forward, how conflicting views and priorities are to be resolved, and what conclusions are to be drawn from their own experience and available data about the impact of the selected actions.

Anyone with an educative role in teaching, training, or sharing ideas and practices on organisational development can help to advance the frontiers of cooperative problem-solving by informing and motivating others in:

- Promoting the cooperative culture
- Organising for power redistribution
- Maintaining vigilance

Promoting the Cooperative Culture

The learning environment in schools, universities, or lifelong education establishments should offer regular and well-facilitated opportunities for participants to experience cooperative problem-solving. Most of the techniques that have been mentioned can be applied or adapted so that teacher–learner interactions can help to familiarise those involved with how cooperative problem-solving works and the impact it has. To achieve this, those in charge of educational institutions need to show that they are themselves committed to relating to the teaching staff as well as their students in this manner.

Institutions with a research function need to engage with those who seek to learn from their findings so that the latter can contribute as cooperative enquirers. The gulf between complex modern life and what we are supposed to believe without question has grown so large that trust in established authority has been eroded by a rise of scepticism against 'experts' in politics, advanced technology, and organisational management. This development needs to be reversed by expertise becoming underpinned by the cooperative involvement of those it is supposed to guide.

In parallel with tackling scepticism about expert findings, it is also necessary to steer the media away from behaviour which breeds cynical distrust, and towards more open and transparent communication with the public. Regulation of journalism, advertising, public relations, art and entertainment will always be a sensitive issue. But it is no different from recognising, for example, that doctors or engineers should be prevented from, and if necessary, penalised for, passing on unwarranted information, especially with a view to persuade others to act in what on the evidence would be detrimental to them. It is not only possible to identify, but also appropriate to censure, flagrantly false or harmfully misleading information. And instead of invoking some unlimited freedom to deceive, the culture of the media has to shift to a much greater willingness to scrutinise and, where justified, halt the dissemination of lies and distortions which, particularly when backed by the richest corporate machines, can render attempts to find answers cooperatively virtually impossible.

Organising for Power Redistribution

As we have seen, cooperative problem-solving requires an inclusive structure which accords equal respect to all those involved. Many social and organisational systems do not possess such a structure and will persist in marginalising people within their rigid hierarchies. If this is to change, those who are committed to cooperative problem-solving should help others learn how to devise campaigns, strategies and movements to reform undemocratic institutions or set up new ones with far less divisive and exclusionary arrangements.

Efforts to democratise government bodies often tail off after the basic demand for one person, one vote has been secured. But many citizen groups have increasingly come to see that formal elections separated by long intervals

actually give people very little real influence over the development of policies that affect their lives. Government bodies at the national and local levels should be pressed into giving citizens meaningful participatory opportunities so that cooperative problem-solving can proceed. Furthermore, beyond the democratic state, only a minority of organisations such as worker cooperatives and partnerships have complied with the principle of one person, one vote.

The basis for conferring rewards or authority, deciding how much greater they are to be compared with what others will have, and curtailing them should circumstances change, must be critically considered and universally applied. And there has to be a ceiling otherwise unlimited superiority will lead to corruption and distortion of relationships making genuine mutual respect and cooperative problem-solving impossible.

Equally a guaranteed floor level or safety net has to be set to prevent those with the least in society or in an organisation sinking to a level where they are dependent on the mercy of others that they have neither the capacity or confidence to engage with an independent mind in considering what should be pursued for the common good. Contrary to the misguided argument that the safety net should be relentlessly lowered to make people work harder, what would make people work harder are real opportunities to secure better conditions of life. Since power is a relative force, the more resources and influence are to be at the disposal of those higher up in absolute terms, the safety net has to be relatively lifted to avoid it becoming merely a token gesture.

With the help of organised efforts to press for well-defined reforms, more inclusive decision-making structures can be brought in so that everyone can agree the basis of different rewards and penalties, trust in the consistency of their application, and dedicate themselves to promoting collective success with which they can identify their personal interests. Resistance from those who want to preserve their privileged position is to be expected, but that is why individuals must learn to organise themselves into a common front in demanding the conditions for reciprocal cooperation.[30]

Maintaining Vigilance

There have been many examples of citizens losing interest in voting because political representatives have lost touch with them; democratic elections being exploited by anti-democratic groups; mutual enterprises surrendering their core principles when their members are bought off with a bonus; or community organisations losing impetus when they fail to sustain engagement with their activities. The participation in informed deliberations must be vigilantly maintained. As soon as people overlook how decisions affecting them are made without their involvement, the risk of those decisions going against them escalates.

Citizens should learn to watch constantly for any sign that the conditions for reciprocal cooperation are being undermined. Warning signals may come from individual whistle-blowers or activist investigators, who need to be given

encouragement and protection to share their findings. Readily accessible collective resources can help to ensure those with power cannot perpetrate and hide any attempt to take unfair advantage of others in any form.

Detection in turn has to be backed by the appropriate response to secure redress and deterrence. This is relevant to the criminal and civil law, but also to school regulations, local bylaws, company rules, and standards and procedures established by large federations or neighbourhood groups. Cooperative problem-solving should be applied to both the process for determining what in general would constitute an offence and what would be a suitable penalty, and that for judging the claims and counter-claims relating to any specific case. By its very nature, there can be no a priori cooperative guide to what laws and rules there should be in all different circumstances. What is required is a vigilant review of the extent to which existing or proposed processes respect the core requirements of cooperative problem-solving.

Conclusion

The extent to which educators in schools, and society more widely, succeed in teaching the merits of cooperative problem-solving will have a direct impact on the displacement of unjust and ineffectual social arrangements by a more inclusive and dependable form of human association.[31]

General praise for cooperation can sometime mask important differences between superficial collaboration, which may be structured on extremely unequal terms, and cooperative problem-solving that operates through genuine reciprocity. Educators have a key role in raising understanding of and interest in how the essential elements of cooperative problem-solving are to be realised. The examples outlined in this article are just a few pointers to the vast store of evidence available to back the wider adoption of cooperative problem-solving. Instead of allowing advocates for authoritarian or laissez-faire social arrangements to get away with dismissing the reciprocal collaboration of equals as an idealistic but ineffectual route to take, educators can encourage more learning from the extensive evidence to build up appreciation and demands for the cooperative approach.

Alongside the dissemination of practical examples, it is also important to cultivate understanding of human dispositions since misconceptions about them have hindered the promotion of cooperative problem-solving. Human nature is neither inherently nasty nor generous. It is essentially reciprocal and inclined to repay kindness with kindness. But unequal power relations can displace reciprocity by exploitation.

To instil a critical understanding of this perennial threat to the conditions for cooperative problem-solving is a vital part of countering the threat. Educators can do this through a combination of integrating the practical ethos of reciprocal cooperation into their routine interaction with those who learn with them; setting out the indispensable step of redistributing power so that the scope for the powerful to manipulate others is continuously minimised; and

constantly reminding others of the need to be vigilant against the risk of allowing an elite to exclude them from having any influence through shared deliberations over decisions that will affect them.

Of course educators cannot by themselves transform power relations in society to secure the conditions for cooperative problem-solving in all spheres of life. But they can raise awareness and understanding to a higher level so that a growing number of people come to recognise that they must work towards the establishment of these conditions. Cooperative structures and reciprocal collaboration are indispensable in any human setting for anchoring the exercise of power to the collective wisdom and shared interests of all concerned.

This does not mean that everyone has to participate in endless deliberations about what they can agree on in relation to a multitude of issues. What it requires is a citizenry ready and able to engage in raising questions, offering suggestions, negotiating compromises, and holding those entrusted with executive offices to account. The responsibilities for cooperative activism will be manageable so long as they can be shared out fairly, and the more people there are capable of taking their turn, the more likely none would have to shoulder an excessive burden.

Ultimately, where authoritarian arrangements make everyone outside the inner circle of power holders dependent on the whim and mercy of their 'superiors', and where laissez-faire in practice merely renders isolated individuals incapable of standing up to the concentrated powers of the organised elite, only the ethos of cooperative problem-solving can give us a real chance to be an equal partner in shaping decisions that determine our lives at every level in society.

Notes

[1] On 12-13 September 2012, a group of academics, students, and leading figures from the cooperative and community sectors met at the Faculty of Education, University of Cambridge, to discuss why and how cooperative problem-solving should be more widely understood and utilised. They agreed on a shared position statement to provide a basis for collaboration between educators, civic activists, and policy makers. http://henry-tam.blogspot.co.uk/2012/10/cooperative-problem-solving-key-to.html

[2] Graham Smith (2005) *Beyond the Ballot.* London: Power Inquiry.

[3] For a consideration of Fishkin's approach, see J. Fishkin & P. Laslett (2003) *Debating Deliberative Democracy.* Oxford: Blackwell.

[4] C. Siriani & L. Friedland (2001) *Civic Innovation in America.* Berkeley: University of California Press.

[5] See K. Singh (2001) Handing Over the Stick: the global spread of participatory approaches to development, in M. Edwards & J. Gaventa (Eds) *Global Citizen Action.* Boulder, CO: Lynne Rienner.

[6] R. Axelrod (1984) *The Evolution of Cooperation.* London: Penguin.

[7] Ibid., chap. 2.

[8] L. Lynn Davis, C. Williams & H. Yamashita (2006) *Inspiring Schools: impacts & outcomes*. Dunfermline: Carnegie UK Trust.
http://www.participationworks.org.uk/files/webfm/files/rooms/education/inspiing_schools_impacts_and_Outcomes.pdf

[9] See, e.g. National Coordinating Centre for Public Engagement (2012) How Engagement Enriches an Institution's Teaching, Research and Learning.
https://www.publicengagement.ac.uk/sites/default/files/How%20PE%20enriches%20research,%20teaching%20and%20learning_0.pdf

[10] Globally, the cooperative movement has been estimated to involve nearly 1 billion people (see http://2012.coop/en/ica/co-operative-facts-figures).

[11] Co-operatives UK. Performance of the Co-operative Economy.
http://www.uk.coop/performance-co-operative-economy

[12] http://www.semco.com.br/en/content.asp?content=1

[13] See, for example, E.T. Jackson (1999) The Strategic Choices of Stakeholders: examining the front end costs and downstream benefits of participatory evaluation. Paper presented at the World Bank Conference, June 14-15, in Washington, DC.

[14] See http://www.thenews.coop/article/fao-calling-support-co-operatives

[15] A useful summary of UK-wide cases can be found in: Scottish Government (2010) *Review of the Impact of Community Engagement within Regeneration*.
http://www.scotland.gov.uk/Publications/2010/04/29130243/3

[16] National Audit Office (2004) *Getting Citizens Involved*. Norwich: The Stationery Office.

[17] A selection of case studies has been compiled by the Participatory Budgeting Unit. Please visit
http://www.participatorybudgeting.org.uk/case-studies/case-studies

[18] http://www.publications.parliament.uk/pa/cm200405/cmselect/cmhaff/80/80we33.htm

[19] Commission for Healthcare Audit and Inspection (2009) *National Study of How Well Healthcare Organisations Engage Local People in Planning and Improving their Services*. London: Healthcare Commission.

[20] See, e.g. Department for Communites and Local Government (2006) *Neighbourhood Management: an overview of the 2003 and 2006 Round 1 Pathfinder Household Surveys*. Wetherby: Department for Communities and Local Government.

[21] For more information, see
http://www.planningforreal.org.uk/what-we-do/what-sets-us-apart/

[22] Thames Valley Partnership (2002) *Mending Fences*.
www.thamesvalleypartnership.org/wp-content/uploads/mending.pdf

[23] Research conducted by the Youth Justice Board in schools which had adopted the practice (2001-2004).

[24] R. Nozick (1977) *Anarchy, State and Utopia*. New York: Basic Books. His views were in part anticipated by Herbert Spencer (see, e.g. H. Spencer (1884/1982) *The Man Versus the State*. Indianapolis: Liberty Fund.

[25] For example, S. Bowles & H. Gintis (2011) *A Cooperative Species: human reciprocity and its evolution*. Princeton: Princeton University Press.

[26] See, for example, H.P. Kainz (1988) *Ethics in Context*, pp. 46-48. Basingstoke: Macmillan.

[27] M. Tomasello (2009) *Why We Cooperate*. Cambridge, MA: MIT.

[28] See, for example, Jonathan Boswell (1990) *Community and the Economy, The Theory of Public Co-operation*. London: Routledge; P. Selznick (1992) *The Moral Commonwealth*. Berkeley: University of California Press; C. Derber (1998) *Corporation Nation*. New York: St Martin's Griffin; H. Tam (1998) *Communitarianism: a new agenda for politics and citizenship*. Basingstoke: Macmillan; H. Tam (Ed.) (2001) *Progressive Politics and the Global Age*. Cambridge: Polity Press.

[29] For a critical analysis of the differences between various views described as 'communitarian' by media commentators, and the actual ideas of communitarian thinkers, see Sarah Hale (2006) *Blair's Community: communitarian thought and New Labour*. Manchester: Manchester University Press.

[30] Movements such as Occupy, UK Uncut, and Living Wage Campaigns, show that where those with the most power refuse to enter into a dialogue, pressures can be brought to bear through citizens organising themselves into a counter-force.

[31] The educational role set out in this article for promoting a more cooperative form of social interaction and problem-solving, echoes the diverse range of ideas articulated by nineteenth century Owenites, R.H. Tawney, J.S. Mill, John Dewey, Jane Addams, Paulo Freire, Saul Alinsky, and contemporary communitarians.

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