

# Education and violent extremism: Insights from complexity theory



**Lynn Davies**, Emeritus Professor of International Education, School of Education, University of Birmingham, UK



[l.davies@bham.ac.uk](mailto:l.davies@bham.ac.uk)

## Abstract

We are beginning to get some understanding of what works and what does not work in educational initiatives in preventing violent extremism across a range of countries. Complexity and chaos theory provide the insights which explain such findings: non-linear change, resisting simple cause-and-effect, seeing turbulence and conflict as normal, increasing connectivity across diverse agents, and providing structures of rules, rights and enabling constraints.

## Key Words

Extremism

Complexity

Violence

Rights

## Introduction

Recently I completed a major international review of 'what works' in the area of education for preventing violent extremism (PVE-E), looking at 23 countries and identifying 20 different entry points (Davies, 2017a). Multiple organisations are involved and there are many interesting initiatives, but some are short lived. I extracted eight principles which characterised those programmes which had some evidence of success and were more sustained. While evaluation is notoriously difficult, successful initiatives prevented students thinking in black and white terms, made them less prejudicial towards 'others' and made them less likely to support violence as a means to an end.

They work when –

- a programme is embedded in a whole school policy, curriculum and way of life;
- teachers have sound preparation in teaching controversial issues;
- a multitude of 'drivers' of extremism is acknowledged, not just ideology;
- a full set of recipients is targeted (students, teachers, family, community);
- there is wide consultation (police, religious leaders, social workers);
- there is not just learning about 'other' faiths/cultures but a political understanding of conflict, including religious conflict;
- a programme is not moralistic, but critical; and
- there is a practical and visible outcome – civic engagement, campaigns, production of counter-narrative materials, citizen research

**To cite this article:** Davies, L. (2019) Education and violent extremism: Insights from complexity theory, *Education and Conflict Review*, 2, 76-80.

What does not work is:

- Messages of love and harmony;
- Individualistic 'inner peace';
- Religious counter-narratives by (western) governments, telling Muslims what is in the Quran;
- Single one-off interventions, however striking and fun;
- Strategies that appear to stigmatise one religious group; and
- Suppressing free speech rather than allowing uncomfortable views to be aired.

To understand these workings at a theoretical level, complexity theory provides significant insights. The field (industry?) of PVE-E is a burgeoning one, with a mass of conferences, dialogues and calls to action as well as research, theory and training interventions. Complexity theory helps us to understand the false trails. These include simple cause and effect regarding vulnerability to radicalisation (broken homes, school dropout, psychological predispositions) and equally simple solutions (moral calls for love and peace, or pointing out positive messages in the Quran). As long ago as 2004, I was arguing for complexity theory in order to understand the role of education in conflict (Davies, 2004), and returned to this in *Unsafe Gods: Security, secularism and education* (Davies, 2014), examining the role of religion in conflict and extremism and arguing for a dynamic secularism in order to promote security. For this brief article, I want to highlight just a few aspects of complexity as a taster.

## Complexity and chaos theory: How things change

Firstly, in the social world, change is rarely linear. It occurs because of a range of intersecting factors in particular moments of time, where turbulence starts to generate new patterns. Prediction is difficult, because a small input can have a big impact (the 'butterfly effect'). Chains of amplification and polarisation can be set off (for example, by rumours and fake news.). The economy is not linear, in that millions of individual decisions to buy or not to buy can reinforce each other, creating a boom or recession (Waldrop, 1992). Development models have failed because of reliance on command-and-control methods which ignore internal dynamics that involve vast numbers of interactions in a country (Rihani, 2002). Evolution occurs through trial and

error: 'evolution is not a rush to the nearest summit but a leisurely process of exploration of possibilities' (Rihani, 2002: 9). The (understandable) mistake in PVE has been to search for cause-and-effect, pinpointing the 'pathways' into radicalisation, which will enable prediction and therefore prevention. In terms of 'push' we now know that there is no one route, only sometimes mystifying combinations. We do know a lot about 'pull' factors – i.e. what is enticing in the lure of extremist movements (status, mission, call of duty, sense of importance) but we cannot predict who might be resilient to these lures and who is vulnerable.

Our social enterprise ConnectFutures took part in a European research project called *Formers and Families* that, through interviewing former extremists and their families, had the aim of identifying family patterns which made children vulnerable to radicalisation (Davies et al, 2015). In our UK sample, however, we were unable to establish any such patterns. Families can help perhaps in preventing radicalisation or afterwards supporting a journey to deradicalisation, but it is crucial to avoid a causal view which attributes blame. The focus on individual psychology or on 'dysfunctional' families is a blind alley in PVE strategy. Effects are not additive but interactive. We cannot add something into a system (moral education) and predict an impact. Similarly, we cannot subtract something (biased textbooks) and assume this will be even part of a solution. This does not mean we do nothing, but we have to approach change in a different way.

PVE-E therefore cannot borrow from or just extend peace education, or any of the programmes which focus on transforming or sedating the individual – whether character education, Buddhist inner peace or mindfulness. It is the wrong starting point. PVE is what within complexity science is called a 'wicked problem'. This means not only that there are many legitimate ways of framing each question, but that any solution has unintended consequences that are likely to spawn new problems. Wicked problems have no 'stopping rules'. Permanent solutions cannot be found – all that is possible is that the problem space is loosened so that a wider range of options for action emerges (Rogers et al, 2013). At its best, education can be part of this loosening of the problem space. But to contemplate change, we have first to look at systems – in particular the complex adaptive system (see Waldrop, 1992; Byrne, 1998; Woodhill, 2010).

## Complex adaptive systems

Evolution occurs when a complex adaptive system (CAS) - whether the brain, the immune system, the world economy or an ant colony – responds to its environment to survive, with redundant features dying out and new ones tried and then developed. A CAS has to reach ‘criticality’ or ‘the edge of chaos’ before emerging into something new. A degree of turbulence is essential – a stable equilibrium means the death of a complex system (Davis and Sumara, 2006; also, see Alicia Juarrero’s vimeo <https://vimeo.com/128934608>).

The brake on evolution and change are what are called ‘frozen accidents’ (for example, the Qwerty keyboard, the 24-hour clock), phenomena that become so embedded that change is inconceivable. Many education systems (as do some religions) exhibit features of the frozen accident, locked into ways of operating and relating which do not reflect current dynamics. (These deep freezers include not just outmoded pedagogy, but the whole idea of a predictable and efficient trajectory through competitive memory based examinations to future employment and social productivity). In contrast, extremist groups exhibit many features of a CAS – they adapt, develop, morph, have intricate networks and, like the brain, have no single controller. While they have linear views of the end-time, and are regressive in their values, they have branched out into a range of financial business models (drugs, arms deals, territory, oil revenues), which start to take on a life of their own, so that ideology becomes if not secondary then at least operating in parallel. You do not tackle them by picking off individuals, however key.

Education is seen by all major agencies as the key to building resilience to extremism. In contrast to military action and cyber-surveillance, this is soft power, the power of the human mind. Yet, if education wants to be a player, it has to emerge from any frozen accident mode of one way transmission or moralising and have a different theory of change, adaptation and socialisation. Four aspects are key here: turbulence, conflict, connectivity and rights.

## Turbulence

The first task is introducing turbulence and risk into the system. This means socialising children into habits of questioning, not obedience. It means them expressing views, however unsavoury, and having them challenged. It means shifting from black and

white categorisations, friend and foe, good and evil. Programmes of ‘integrative complexity’ (Liht and Savage, 2013) in countries as far apart as Scotland and Pakistan use the introduction of ‘hot topics’ with young people to start the process of generating a range of viewpoints: the aim is being comfortable with a range of perspectives while retaining one’s own core principles. Complex thinking entails ‘holding one’s strong opinions lightly’ (Rogers et al, 2013: 6). Initially, this means stepping outside one’s comfort zone.

The idea of ‘living with more than one truth’ characterises what I have termed ‘justice-sensitive’ education (Davies, 2017b), which, in history and social science, takes a more complex view of ‘victims’ and ‘perpetrators’ and tries to understand a conflict from multiple viewpoints. In education, this might mean introducing turbulence into official versions of history and who constituted ‘enemies’. Complexity theory allows us to see how cycles of revenge and retribution occur: of importance is understanding how violence becomes normalised, that is, how violence becomes a path dependent response to perceived injustice or offence.

## Conflict as normal

Much discourse on peace implies the binary opposite to conflict, when in fact relative stability may simply be a different way of managing or even disguising conflict. A strong argument, particularly within complexity theory, is that conflict is not only normal, but is necessary to achieve a functioning society (Andrade et al, 2008). Different forms of democracy require conflicting agendas to be constantly brought to the fore, so that evolution and emergence occurs. Democracy is not an antidote to conflict, but something that builds on ‘natural’ tendencies for disputes over resources, and finds a mechanism to ensure that conflict is not entirely destructive. The term ‘positive conflict’ has often been used in this regard (see Davies, 2004 Chap 12; Davies, 2005). In PVE-E, it is essential that young people understand conflict and the broad issues of structural causes of inequality and hence ethno-political grievance. (This is often not popular with governments who prefer to blame conflict on people ‘not getting on’). Yet conflict management is not just about interpersonal conflict resolution, but requires an understanding of how conflicts over ideology, land and resources amplify, or conversely can be managed at the level of society and governance.

## Information, connectivity, encounters, networking

A third aspect of a complexity approach to PVE-E is the power of networks in a CAS. What has been learned from the way that the Arab Spring developed is that horizontalism is the key to change. Network theory shows us how the more people that use a network, the more useful it becomes to each user (Mason, 2012). While there are Facebook followers, networked interaction is not about singular leaders or heroes. This was well captured by Marc Sageman in his book *Leaderless Jihad* (2008). The power and speed of networks makes us rethink what we understand by empowerment. It could be that the ways we currently conceive of giving children power (school councils, representation on committees, etc.) do not match the way they currently network and use social media to influence others. School walls are increasingly permeable.

Extremist groups simultaneously use social media across a vast range of targets and narrow the networks available to recruits, distancing them from former ties.

In contrast, successful PVE programmes widen the space, stretch the horizons and generate encounters with a large range of people of different ethnicities, religions, sexual orientation, ages and social positioning (we have worked fruitfully on bringing a range of disadvantaged young people together with the police to problem solve). This is the 'strength of weak ties' (Granovetter, 1973), i.e. that you learn more from acquaintances than from friends. It is not just about bringing people together to learn about their 'different' cultures, but in contrast working towards some common end, in order to temporarily bracket their heritage and find shared purpose.

There are a growing number of international networks for young people to counter extremism (more of which in Davies (2017a)). In theory, there is clearly a huge possibility space for networks of schools and teachers across the globe to mount a rearguard action. Nobody knows exactly how many schools there are in the world, but estimates are around 6 million. The problem is identifying a concrete goal: mass on-line campaigning and action needs a reward, just as violent extremism offers rewards. We await some sort of virus that can spread non-violence.

## Rules and rights

Value pluralism is not the same as cultural relativism. A framework is needed within which to make judgments, however provisional. Complex systems do not have an 'invisible hand' directing activity. But one component is structure. In physical terms, these might be molecules or physical laws of gravity. In social terms, there are what is usually referred to in complexity theory as 'institutions' - the human element, the way people work within structures, the 'rules' that make ordered society possible, such as language, currency, marriage, property rights, taxation, education and laws. Institutions help individuals know how to behave in certain situations. They are critical for establishing trust in a society.

But complexity theory does not tell us who should decide the rules. A CAS has no morality as such, simply what works. Religions have constituted longstanding systems of rules, although their record in preventing extremism is to say the least questionable. Religious frameworks of morality derive from sacred texts which do not easily invite critique or independent adaptation. A more dynamic and inclusive framework is that of human rights, a structure which cuts across all religions and none.

Rights are what are sometimes called 'enabling constraints', enabling people to plan their lives on the basis of some guarantees of law (Davis, Sumara and Luce-Kapler, 2008). Rights are multi-layered, however, for instance in the necessary distinction between absolute, limited and qualified rights, which enable us to make judgments on competing rights, for example when the right to privacy in the home is superseded by the right to freedom from harm if a child is being abused. Current counter-terror legislation in many countries has generated important debates on rights, for example rights to citizenship and freedom of movement or association; and more public education on rights may be indicated. In terms of religious extremism, people need to understand what constitutes a right - for example, that there is no right in international law not to be offended, and that religions do not have rights, people do. Critique is not against the law, unless it becomes hate speech.

At school level, awareness of rights becomes central to supporting structures of trust in a society. A good example is UNICEF's Rights Respecting Schools in UK (RRS), a whole school approach founded on every participant in the school (students, teachers, support

staff, governors, parents) knowing the Convention on the Rights of the Child, and being bound by it. This is a very obvious example of an 'enabling constraint': research has shown that children learn better, because they understand that they have the right to learn, and that misbehavior infringes others' right to learn. Everyone has the same rights, and there are no outsiders. This does not mean conformity, but a basis for challenge: one RR primary school in London mounted an impassioned project on female genital mutilation, educating their relatives and the community, with the slogan 'My Body, My Rules'. RRSs are cited favourably in a DfE report (2011) on teaching approaches to counter extremism.

To sum up, while resilience to extremism implies some sort of hardening, complexity teaches us that what is actually needed for an emergent response is more openness and flexibility to tackle what comes: turbulence, myriad encounters, value pluralism, controversy and willingness to take risks – all while upholding rights. It can be done.

## Author Bio

**Lynn Davies** is Emeritus Professor of International Education at the University of Birmingham and Co-Director of the social enterprise ConnectFutures. Her interests are in education, conflict and extremism, and she has done research and consultancy in a number of conflict-affected states. Work in UK includes evaluating programmes to counter radicalisation, a project interviewing former extremists about their backgrounds, and evaluating schemes on mentoring Muslim prisoners. Books include *Education and Conflict: Complexity and Chaos* (2004), *Educating Against Extremism* (2008) and *Unsafe Gods: Security, Secularism and Schooling* (2014). She is a recipient of the Sir Brian Urquhart award for Distinguished Service to the United Nations.

## References

- Andrade, L., Plowman, D. and Duchon, D. (2008) Getting past conflict resolution: A complexity view of conflict, *Emergence: Complexity and Organization*, 10(1), 23-38, Retrieved from: <https://digitalcommons.unl.edu/cgi/viewcontent.cgi?article=1064&context=managementfacpub>
- Byrne, D. (1998) *Complexity and the social sciences*, London: Routledge.
- Davies, L. (2004) *Education and conflict: Complexity and chaos*, Stoke on Trent: Trentham.
- Davies, L. (2005) Teaching about conflict through citizenship education, *International Journal of Citizenship and Teacher Education*, 1(2), Retrieved from: [http://www.dphu.org/uploads/attachements/books/books\\_2297\\_0.pdf](http://www.dphu.org/uploads/attachements/books/books_2297_0.pdf)
- Davies, L. (2014) *Unsafe gods: Security, secularism and schooling*, London: IOE/Trentham.
- Davies, L., Limbada, Z., McDonald, L. Z., Spalek, B. and Weeks, D. (2015) *Formers and Families: transitional journeys in and out of violent extremism in UK*, Retrieved from: <http://connectfutures.org/wp-content/uploads/2016/08/UK-Formers-Families-Final.pdf>
- Davies, L. (2016) Wicked problems: How complexity science helps direct education responses to preventing violent extremism, *Journal of Strategic Security*, 9(4), 32-52.
- Davies L. (2017a) *Review of educational initiatives in counter-extremism internationally: What works?* Gothenburg: University of Gothenburg, Retrieved from: [https://segerstedtinstitutet.gu.se/digitalAssets/1673/1673173\\_review-of-educational-initiatives-180110.pdf](https://segerstedtinstitutet.gu.se/digitalAssets/1673/1673173_review-of-educational-initiatives-180110.pdf)
- Davies, L. (2017b) Justice-sensitive education: The implications of transitional justice mechanisms for teaching and learning, *Comparative Education*, 53 (3), 333-350.
- Davis, B. and Sumara, D. (2006) *Complexity and education: Inquiries into learning, pedagogy and research*, Abingdon: Routledge, Retrieved from: [https://amberroweblog.files.wordpress.com/2016/11/brent-davis-dennis-sumara-rebecca-luce-kapler-engaging-minds\\_-cultures-of-education-and-practices-of-teaching-routledge-2015.pdf](https://amberroweblog.files.wordpress.com/2016/11/brent-davis-dennis-sumara-rebecca-luce-kapler-engaging-minds_-cultures-of-education-and-practices-of-teaching-routledge-2015.pdf)
- Davis, B., Sumara, D., and Luce-Kapler, R. (2008) *Engaging minds: Changing teaching in complex times*, New York: Routledge.
- DfE (2011) *Teaching approaches that help to build resilience to extremism among young people*, Research Report Department for Education, London: DfE-RR119.
- Granovetter, M. (1973) The strength of weak ties, *American Journal of Sociology*, 78 (6), 1360-1380.
- Liht, J. and Savage, S. (2013) Preventing violent extremism through value complexity: Being Muslim being British, *Journal of Strategic Security*, 6 (4), 44-66.
- Mason, P. (2012) *Why it's kicking off everywhere: The new global revolutions*, London: Verso, p.74.
- Rihani, S. (2002) *Complex systems: Theory and development practice*, London: Zed Books.
- Rogers, K. H., Luton, R., Biggs, H., Biggs, R., Blignaut, S., Choles, A. G., Palmer, C. G. and Tangwe, P. (2013) Fostering complexity thinking in action research for change in social-ecological systems, *Ecology and Society*, 18(2), 31.
- Sageman, M. (2008) *Leaderless Jihad: Terror networks in the twenty-first century*, Philadelphia: University of Pennsylvania Press.
- Waldrop, M. (1992) *Complexity: The emerging science at the edge of order and chaos*, London: Penguin.
- Woodhill, J. (2010) Capacities for institutional innovation: A complexity perspective, *IDS Bulletin*, 41 (3), 47-59.