

DEVELOPING AN UNDERSTANDING OF VIOLENCE USING THE DSRP THEORY AS A FRAMEWORK

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ABSTRACT

This paper uses the DSRP model to understand human violence. When a boundary is set by a distinction, inside and outside is created. That which is excluded becomes the other and is often disowned, demonised and marginalised making violence or abuse towards the other more likely. Sometimes parts of a system invade other parts disrupting the functioning of the whole system, reducing requisite variety.

The relationships between parts can be distorted. Each part has its own perspective excluding other perspectives. Violence is thus latent in all complex systems. Violence is explored from a variety of perspectives. It is fractal appearing from the individual and family level through to national and global manifestations. It can be overt or covert and often becomes transgenerational. Systems thinking can be a powerful tool for restoring balance and resilience to human social systems and reduce the level of violence and abuse in society.

Keywords: DSRP, violence, abuse, CAS, boundary

Introduction

This paper explores violence in social settings using the DSRP model (Cabrera & Cabrera, 2015) as a framework. First, there is an outline of the DSRP model leading to a definition of violence in systems terms. The nature of human violence is then explored from several perspectives. Shannon's theory of communication (Shannon, 1948) is followed by Maturana's (Maturana & Verden-Zoller, 2008) concepts of relational dynamics. This leads into an investigation of the process of othering through which individuals or groups are marginalised and disowned leading to violence.

While most people think first of violence in its overt physical forms, it has many other manifestations. Violence can also verbal, emotional, mental, and financial and more. Galtung's (1990) makes the distinctions between direct, cultural or structural violence demonstrating how violence is fractal, appearing from the individual, family, community, nation and global levels. Structural violence is particularly insidious because it is so hidden, as for example it is observed within dominance hierarchies in organisations.

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Violence violates our human needs from basic survival needs through to higher spiritual needs.

Having explored the many ways that violence and abuse can appear and disrupt the functioning of human systems, systems thinking is proposed as a tool that can help repair the harm caused by violence and provide a way for minimising or avoiding future violence and abuse.

DSRP

Just as physicists seek the fundamental elements of the material universe, Cabrera and Cabrera (Cabrera & Cabrera, 2015; Cabrera & Colosi, 2008) sought the fundamental building blocks of the cognitive world. They propose four qualities that are evident in anything that arises: distinction, system, relationship and perspective.

Distinction: When we make a distinction we create a boundary. There are no inherent boundaries in the world, but they are placed in our minds in order that we can make sense of our experience and act in the world. When a distinction is made there is a **self and an other**; a part that is included and a part that is excluded. Often that which is excluded is marginalised and treated differently from that which has been included (Cabrera, 2006; Midgley, Munlo, & Brown, 2014; Ulrich, 2006).

System: When a distinction has been made parts become separated off, which then link together into systems. There is a dynamic balance between the **parts and the whole**. Often when we focus on the parts we lose sight of the whole and vice versa. By looking at the leaves, we do not notice the forest; by looking at the forest we stop looking at the leaves (Ahl & Allen, 1996). Cabrera and Cabrera (2015) talk of needing “Splumpers”, who can both split systems to see the parts and lump the parts to see the whole at the same time.

A complex system needs both autonomy and connectivity to maintain itself. The parts need autonomy to make their own decisions without undue external influence, thus creating requisite variety (Ashby, 1947). The whole needs connectivity so the parts connect and interact bringing cohesion to the system. Often an increase in autonomy means a decrease in connectivity and vice versa, so the two must remain in a dynamic tension for the system to remain effective.

Relationships: The parts relate to each other and to systems. Systems relate to systems and to parts. There is an **action-reaction** dynamic that arises between the parts. Beer’s Viable Systems Model (Beer, 1984; Espejo, 2003) look at the five nested sub-systems in a viable system and how they relate to each other. Maturana (2002) writes of the relational spaces between the parts that arises when the parts interact.

Perspective: Each part has a point of view from which it has a perspective (Bateson, 2000, 2002; Ulrich, 1983). Taking a **point of view** enables meaning to be created, but unavoidably makes other perspectives less visible.

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Definition of violence

Starting with these fundamental building blocks we should therefore be able to build understandings of the systems and situations we experience in our lives and their qualities. This paper investigates violence from the perspective of DSRP.

Complex adaptive systems (Miller & Page, 2007; Stacey, 2011) have all four qualities mentioned above. They are also dissipative (Prigogine, 1984) in that they require a flow of material, energy and information across the system boundary which counters the entropy within the system and thus sustains the system. If that flow is disrupted then the system is harmed.

Within a complex adaptive system the parts are constantly interacting through recursive feedback loops. Boundaries are constantly being crossed as a necessary part of the process of autopoiesis and structural coupling (Maturana & Varela, 1998). The parts are necessarily different, separated by the boundary between them and every part has its own perspective. When parts therefore meet at a boundary, there is inevitably conflict. Conflict can be resolved in a positive way, where the parts are enhanced or it can be resolved in a negative way, where one or both parts are harmed by the interaction. Violence can therefore be defined as the **invasion of a boundary, the disruption of a flow across a boundary, or wilfully ignoring an invasion or disruption**. Having a definition, we can explore violence from a range of perspectives and see how they relate to the elements of the DSRP model.

Boundary invasions and flow disruptions in human interactions

There are a number of ways boundaries can be invaded or flows across boundaries can be disrupted. Any interaction or communication necessarily involves boundaries coming into contact and thus creates the potential for violence. In any communication a message must pass from one person to another (Shannon, 1948). The message starts with one person (or agent) with information that it wishes to communicate to another, the message must be encoded, in the human case usually into words. There is a transformation process involved in the encoding and then a transmission process with a boundary to be crossed. The message is sent across a medium, another boundary, and noise can enter the system as the message passes through the medium. The message is perceived by the receiver, who must then decode the message and understand the meaning attached. Meaning can be lost or distorted at any point in the chain of communication. Conflict thus arises, which can become violence. This process becomes much more complex when relational recursive dynamics in human communications are considered.

Maturana and Varela (1998) developed the concepts of autopoiesis, structural coupling and structural determination. Autopoiesis is about how a system creates and maintains itself within its own boundaries and how it protects its boundaries to maintain its autonomy. Structural coupling is about the relational connection in the space between autopoietic being or the environment, such that recursive feedback loops in a relational

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space generate a structural congruence to enable co-ordination and evolution. They will be perturbing each other's boundaries in ways that enable reciprocally triggered change. Neither is in control, but both participate. As we interact with each other across boundaries differences become apparent that must be negotiated. When a relationship is distorted, the perturbations no longer enhance the mutual co-ordinations, but rather allow one to dominate or abuse the other.

Boundary invasions and flow disruptions in human interactions

As soon as we make a distinction we create a boundary and define self and other. That which is self, be it my body, my community or my nation is familiar. That which is other is less familiar. There will always be difference (Bateson, 2000) between people to be negotiated; between familiar and unfamiliar. Sometimes this difference can be easily resolved by those involved. When the difference is not understood, perhaps through gender, race, class or age, it is easy to make a negative judgement of the other. The other person shifts from being an equal to a threatening adversary. When one person treats the other as an adversary, the other is "invited" to take up the role of adversary and tensions rise. The sense of connectedness and relationship is lost and perspectives become polarised. Those involved then tend to seek out information that supports their polarised view and ignore or disregard information that supports the views of the other. Past grievances are often revived and can lead to intergenerational violence. The other becomes demonised (MacGill, 1995). When the other is demonised and perceived as less than human, violence becomes much more justifiable. In her book *Breathing: Violence in Peace out*, Milojevic (2013) recounts generations of violence in her family history in the Balkans. She describes eight basic steps by which a nation state typically comes to war that resonate with this analysis of violence:

1. Create the category of other
2. Differences are heightened, similarities minimised
3. Attach the value of lesser to the other
4. Build a sense of threat from "them"
5. Say only through the use of force can the threat be quelled
6. Suppress alternative opinions
7. Deny or justify any violence used.
8. Repeat the whole process

Though this list is written in regard to ethnic violence, it reflects relational dynamics that are evident at all levels of human interactions from the individual to family to community to nation to the entire globe. Violence and its dynamics are fractal (Mandelbrot, 1982).

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The fractal nature of violence

Human beings are multi-dimensional fractal systems of systems (Allison et al., 2004). There are boundaries between all the systems and within each of the systems. Violence can occur at each boundary. Because of the interconnectedness violence at one part of the fractal can have reflections all through the fractal.

At the physical level we are formed by nested hierarchical layers from atoms to molecules to tissue to glands to organs to body systems to a complete body. We must protect our bodies to maintain physical health. We come together in social groups to form family, community, nation and globe.

We also have non-material dimensions. We develop a sense of identity. We make distinctions about what we include within our identity and what we exclude. That which is within the identity needs to be protected to maintain our psychological wellbeing. Just as we resist perceived threats to our physical well-being, we resist perceived threats to our identity. We have extended our identity into the external world, so we have my house, my car, my family, my money, my country (Latour, 2005). We feel just as threatened when we perceive those external manifestations as being under threat. If someone steals my money or car, or breaks into my house, I feel personally violated.

Violence also occurs in various forms. Violence can be clearly visible or deceptive and hidden, and at an enormous range of scales. Galtung (1990) recognised three types of violence:

Direct

Direct violence is the more obvious forms of violence as a wilful act causing harm. On a personal level this might involve hitting, kicking, or slapping. It might even mean shooting that occurs at a distance, but cause and effect are clearly identifiable. At a larger scale chemical weapons, explosive devices, military drones and so forth might be found where the violence is more orchestrated.

But direct violence is not just physical. There are many other forms of violence that are perpetrated: verbal, emotional, mental, spiritual, financial, the threat of violence, and allowing children to witness violence¹. Often the root of the violence may be cultural or structural, but the expression of it is direct.

Cultural

Culture arises from an evolved set of shared beliefs about the world and the place of the society in their environment. The emergent culture may be more inclusive and focused on peaceful ways of interacting within itself and with others or it can be more divisive and marginalising of groups internally and externally. In that case the shared perspectives

¹ In New Zealand law it is an act of violence to allow a child to witness violence, because of the potential impact on their future behaviour.

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held by a culture, are likely to justify violence through some pretext as noted above (Milojevic, 2013). Historic acts of violence are often glorified through the cultural narrative that may talk of how the culture was established or maintained (Butler, 2004). Whereas the murder of an individual is universally condemned, when it is clothed in a cultural narrative killing on a massive scale often becomes applauded and valorised. Increasingly innocent people killed seemed to be acceptable “collateral damage”.

Structural

Structural violence occurs when a group is marginalised, disowned or othered and treated abusively and violently. The marginalisation might be because of gender, age, race, class, nationality or any other identifiable distinction. It might also be inherent in the social structures that privileges a certain small group at the expense of the rest, such as those who own capital. There is structural violence inextricably woven into the conventional organisational structures we use. Dominance-based hierarchies rank people and distribute power and resources according to one’s place in the hierarchy. People are divided and the resultant inequality provides the means whereby people are marginalised and treated differentially. The whole neo-liberal agenda is built on the framework of the inequality intrinsic to dominance (Homer-Dixon, 1999; Klein, 2014; Peltzer, 2003).

There is a growing peer to peer movement (Bauwens, 2005a, 2005b, 2006), where those involved interact directly with one another without the need for a central organising hierarchy. That includes co-operatives, whether in its more traditional forms like Mondragon (Whyte & Whyte K., 1991) or the Convergence gathering (MacGill, 2014, 2015a, 2015b) or computer based platform co-operatives (Scholz, 2016), commons based enterprises, and decentralised networks (Brafman & Beckstrom, 2006; Nielson, 2004) They are using organisational structures designed to reduce the level of structural violence. Our willingness to use violence is linked to the values and beliefs we have absorbed, particularly when we were young. This is next investigated further.

The fractal nature of violence

A new born baby experiences a world without boundaries (Winnicott, 2002). The first boundary to be created is that of self and other (Lakoff & Johnson, 1980a, 1980b; Lakoff, 1992). The baby will come to realise that it has a level of control, however clumsy, over its own body that it does not have with external objects and other people. It recognises that the internal sensations of its hand match what is happening with their perception of their hand as an object in the external world and that this is not so for other external objects. The baby learns to distinguish between its body and its mother’s. Once inside/outside, self/other boundary is formed other spatial boundaries up/down, forwards/backwards, left/right form.

As boundaries stretch across all fractal levels, the child learns to work with distinctions, systems, relationships and perspectives forming internal conceptions of themselves, the world about them and the future. To a great extent depending on life circumstances, a child develops beliefs about themselves and their value and worth. If they grow up in a supportive, encouraging world they will tend to develop values and beliefs that support

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positive self-esteem and competence. They see others as people they can trust, who will help them reach their goals. If the child has not been fortunate to have a supportive upbringing, but have rather abusive and violent surrounding to navigate, the brain actually physically grows differently in response to the environment. They are likely to see themselves as useless and incompetent, see the world as a dog-eat-dog jungle, and the future as a place of gloom and dread. These values and beliefs define our point of view and what we can conceive of and what remains invisible to us. Our thoughts and emotions are shaped by beliefs and values, and therefore also the actions we choose and the world we create for ourselves (Beck, 1979).

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Boundary placements

As adults we construct boundaries in line with our perceptions of the ourselves, the world and our future. Largely as a result of our upbringing we place boundaries around ourselves at each level of being from physical to spiritual. The boundaries are placed in ways that are congruent with our nature. Some ways boundaries are placed are more effective in terms of building relationships with others and living without violence.

Wall

People who have learned that the world is an unsafe place, full of people who would harm you if possible are likely to build wall type boundaries. Their life experience has taught them the world is not a safe place to be. These people are defensive and tend to see

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the world in very black and white terms, such as “You are for me or against me”. People with wall boundaries are a little like a gang headquarters with high walls, barbed wire fences, guard dogs, and cameras. While their boundaries keep them safe, they also exclude positive influences.

No boundary

People who were brought up without a sense of discipline in their upbringing can end up as a person with no boundaries. There is no restriction on what the person is able or willing to do and is easily led by others. Intrusions through their boundaries are unnoticed and unchallenged. Their lives move from chaos to chaos. They are like a house with no boundaries: people will come and steal the mail, break windows and dogs will mess on their lawns.

Fragmented

Fragmented boundaries often arise from inconsistent boundaries being set when young. Such a person does not have the insight to know when they should be excluding someone and when they should allow them closer. This is like a house with broken fences and someone who lets people in through the gate that it is not wise to allow in.

Intact

Intact boundaries tend to indicate a positive upbringing where the person learned to be aware of the boundaries and keep control over them. They have a good understanding of who should be allowed past the gate and who should be shut out of the house. A further perspective on the psychological aspects of violence is considering violence as a misguided response to perceived unmet needs.

Meeting human needs

All people have needs at many different levels. Experiencing violence often means our needs are not met, or if we feel our needs are not being met, using violence is a tempting response towards others. Though controversial (Heylighen, 1992), Maslow’s (1943) well-known model, *the hierarchy of needs* provides one way of understanding human needs. Maslow proposed that we have levels of need. The basic level is the level of basic physiological needs of food, water and shelter, sex and sleep. Money is often necessary to maintain physiological needs.

At the next level we have safety needs. Threats to life must be kept at bay. The law is often involved in maintaining this security. We tend to build safety through coming together with others of our kind to protect us against external threats.

Next up is belonging. If we come together in groups we must find ways of bonding and holding the group together, love and connectedness. This is also the level of social contracts, forming the shared agreements and rules that will enable community members to live together successfully.

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The next level is self-esteem. Have a need to feel good about ourselves and feel valued in our family and community. Self-esteem is often linked to status in the community. If we are well connected within our community self-esteem is likely to be stronger. Obeying the rules of the community usually helps us gain acceptance and praise from our community. The final level is self-actualisation. Here we come to know ourselves and have the strength, if needed, to break the rules of society when they do not work to enhance our lives.

These needs are interconnected and the lack of needs in one area of our life will have an impact in other areas of life. Our needs are thus fractal and so when needs are not met because of violence, the results are also fractal having an impact right through the systems. Maslow ideas are often presented as a simple hierarchy, but human needs are far more complex. We seek all needs rather than building up from the bottom and the levels are extremely interconnected and interdependent.

For as long as we feel that our needs are being met, it is generally easy to trust and co-operate with others and use conflict creatively to enhance the situation. Whenever we perceive that our needs may not be met, we often feel threatened and anxious. Note that it is the perception of unmet needs that is more critical than whether the needs are in fact not met.

When we feel under threat and perceive ourselves as not having our needs met, we tend to pull our boundaries in close to focus on personal survival in the immediate future. We lose sight of the impact of our actions on others and longer term consequences of our actions and can easily resort to violence as a misguided attempt to get our needs met. An understanding of brain functioning can shed light on this dilemma.

Neurological factors in violence

Our willingness to use violence can be linked to the way we see our world. If we choose to focus on the other as a threat, disconnect from others, have poor relationship skills and insist on our own perspective, violence is more likely to be seen as an acceptable behavioural response. The structure of the brain can shed light on how we choose to see the world.

MacLean's triune brain theory (MacLean, 1977, 1990), though discredited in many details, outlines clearly the three basic structures in the brain that evolved over time. His reptile brain in the middle of the brain covers the more primitive areas of the brain, which controls the fight or flight reflex. The limbic system envelops the brainstem and is involved with emotion. That is covered yet again by the cerebral cortex (Seeley, Stephens, & Tate, 1989). The reptile brain is focused on survival, so the focus is on self-preservation in the short term. This fight/flight reflex links into the aggressiveness controlled by the amygdala in the limbic system. This fight/flight response is triggered by feelings of being under threat. This can be physical threat, or threat to our sense of identity or self-esteem.

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The cerebral cortex, and the pre-frontal cortex in particular, tends to control higher level social functions, peculiar to human beings. Three critical functions are complex problem solving, empathy and future planning. Complex problem solving allows us to seek out a range of options to responding to a situation that may arise rather than a less adaptive fight/flight response. The pre-frontal cortex looks at developing empathy and understanding other people's perspective as opposed to only considering self-preservation.

Thirdly, it allows us to review the past for responses in the present that will create a better long term future (Rosen, 2012). Much violent behaviour is about responding to the emotion of the moment without thought of future consequences. The pre-frontal cortex has the role of inhibiting the flight/fight response when it is inappropriate, so that more alternatives can be considered that includes thinking about others and the future. The effect of alcohol and many drugs is to reduce the capacity of the pre-frontal cortex to inhibit the brainstem and limbic system.

We have differing abilities at containing the anxiety that arises when we feel our boundaries are threatened (Stacey, 1996). A person who does not contain anxiety well will struggle with delayed gratification and tend towards impulsive behaviours, where the brainstem's search for immediate solutions to assuage unease dominates over the pre-frontal cortex's appreciation of the wider social context.

When we focus on our own needs to the exclusion of others, we are pulling our boundaries or perception into ourselves making everyone else other and invisible. When we place our temporal boundaries around the present moment, the future becomes invisible. We become disconnected from others and break relationships. Our perspectives on the world become canalysed (Cohen & Stewart, 1995) as we become oblivious to the harm we are causing.

Systems skills can, however, be learned. We can learn to recognise where we place our boundaries and the implications of those decisions. We can build our awareness of the systems we are a part of and the skills we need to build effective relationships. We can learn to seek out other perspectives and know that our particular perspective is only one among many.

How the development of systems thinking can reduce violence

Systems thinking (Cabrera & Cabrera, 2015) is fundamentally different from everyday linear thinking, where cause and effect tend to obviously linked. Systems thinking looks deeper at the more complex dynamics, so it can be used as a tool for reducing violence.

Boundaries

If a person gains a greater appreciation of where they choose to place their boundaries in their life and the implications of those choices. The person learns to be aware of the marginalised other and take the perspective of that other. Boundaries exist at every level of being, so the deeper we are able to uncover the boundaries we have chosen and the

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narratives we have created to support them, the more we gain conscious control of our actions.

Systems

Rather than focus only on the self and personal needs and desires, seeing oneself as a part of a greater system, which includes other people builds empathy and reduces the likelihood of violence. Reflecting on the systems in which we are embedded builds an awareness of the balance of autonomy and connectivity and how both are necessary for balanced growth. Cycling patterns such as the adaptive cycle (Gunderson & Holling, 2002; Holling, 1994) can be recognised within abusive behaviours (MacGill, 2011; Prochaska & DiClemente, 1992) that help people understand changes in human dynamics over time that lead to violence.

Relationships

As we become aware of our relationship with others, we become more aware of the processes needed to manage difference. There are definite relationship skills that can be learned to build resilience against the inevitable perturbations that will be experienced by those in relationship. Developing desistance skills or distraction techniques enables people to not react impulsively to experiences that may appear threatening and not trigger a cascade of negativity (Bak, 1996) ratcheting up and up until it ends in violence.

Perspectives

By learning to appreciate other perspectives violence is reduced. We grow developing a set of values and beliefs about ourselves, the world we live in and the future, that defines how we will perceive any situation and react to it. We absolutely need this perspective and cannot operate on the world without it, but once it is established, it can analyse our perception of our experiences. We ignore, minimise and deny aspects of the world that do not fit within our worldview. It is only by consciously seeking new perspectives and comparing them against our existing values and beliefs that we are able to consider information from beyond our purview.

Empathy is the ability to put ourselves in someone else's position and see the world as they might see them. Taking wider perspectives takes time and so learning to contain anxiety and delay gratification is needed to avoid linear, impulsive decisions. Taking wider perspectives will also allow us to better anticipate future outcomes and thus be better prepared for whatever future eventuates.

Accepting uncertainty

Since complex systems are non-linear, the outcome of any action is not readily predictable. This can be difficult for some people to handle because it leaves a feeling of not being in control. Building up desistance skills to cope with the anxiety that arises from unpredictable outcomes will be helpful for anyone living in a complex environment. This is particularly so for wicked problems (Churchman, 1967) that are that much more

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intractable and unpredictable. Anyone who can remain calm and adapt to the unexpected changes will fare much better than someone maintaining strict control over their environment.

Recognise leverage points

Meadows (2008) talks of recognising leverage points as an important systems skills. Careful analysis of a system can reveal places where often significant control over a system can be gained. The cybernetic image of the helmsman (Heylighen & Joslyn, 2001; Martin, 2015) depicts someone in a wide treacherous ocean, who only has control over the tiller and sail positions, who is nevertheless able to reach the desired destination. Having control over our thinking and emotions is similarly a leverage point for human behaviour and the avoidance of violence and abuse.

Conclusions

DSRP is a model with universal applications. This paper has looked at DSRP in relation to violence and developed a systems-based understanding of the nature of violence. With this definition a foundation was set for understanding human dynamics in relation to violence. Violence and abuse disrupt and harm social systems. Developing systems thinking helps people to recognise the distinctions in their lives and their impact, raises awareness of marginalisation, build empathy and recognise their connectedness with others, build more resilient relationships and be open to other perspectives. Enhancing social systems using systems thinking is one way of reducing violence as it appears as direct violence, cultural violence or structural violence.

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