REVIEW ARTICLE

A Social Cybernetic View of Violence and Some Paradoxes of Working with Violent Abusers

Victor MacGill[*]

University of the Sunshine Coast, 90 Sippy Downs Dr, Sippy Downs QLD 4556, Australia

Abstract: This paper commences with a theoretical underpinning of the nature of violence from a social cybernetic perspective, exploring the interactions between parts and wholes where boundaries are transgressed or vital flows are disrupted. A case study of Rangi, a perpetrator of family violence, who is a hypothetical composite of people the author has worked with over the years, demonstrates how cybernetic principles can be used to understand the nature of human violence on an individual level and inform ways of working with clients aiming to reduce the frequency and severity of violence in their lives and the people around them. The focus then shifts to structural violence imposed on the parts of the system by the whole. First, this is examined at a societal level, then returning to the case study of Rangi, there is an exploration of structural violence within the criminal justice system revealing paradoxes to be confronted in working with violent clients.

Keywords: Cybernetics, Violence, Boundary, Recursive, Structural violence, Complex adaptive systems.

1. INTRODUCTION

As in many other countries, violence is a serious problem in New Zealand. More prisons are being built to cope [1]. Most work within the field of criminal justice has a linear focus, thus missing many of the complexities involved in the work, creating unintended consequences. The justice system tends to focus on the offender and the victim; the offender being 100% responsible for the situation and the victim 0%. It is seldom that clear, so the impact of the relational interactions [1] between 'offender and 'victim' that often ratchet up a conflict from an argument to an assault becomes invisible. There is, therefore, value in developing a cybernetic understanding of violence that takes into account the impact of recursive social dynamics [2]. This paper uses social cybernetic thinking to explore the nature of violence and help people working in the field. The author has been working in the field of violence in New Zealand for about fifteen years.

The first section looks at violence from a theoretical cybernetic perspective as parts interacting to make wholes, which is then used to shed light upon the use of violence in social settings. This is demonstrated through a case study of Rangi, a hypothetical male perpetrator of domestic violence, who is a composite of a number of individuals with whom the author has worked over the years. Cybernetics is applied to Rangi's individual situation and shows how it can be useful in helping him gain a better understanding of his violence and develop strategies to reduce it. The focus then shifts to understanding structural violence, where organisations unnecessarily impose harmful restrictions on individuals, further entrenching the domination and control by those in power, and degrading the well-being of the organisation's members. Rangi is then re-introduced, highlighting his interactions with the criminal justice system and the impact on his life.

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[1] http://www.stuff.co.nz/national/politics/85448143/government-to-spend-1b-to-sleep-1800-more-prisoners.

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* Address correspondence to this author at the University of the Sunshine Coast, 90 Sippy Downs Dr, Sippy Downs QLD 4556, Australia; Tel: +64 22 3264 157; E-mail: victor@vmacgill.net

2. A THEORETICAL SOCIAL CYBERNETIC PERSPECTIVE OF VIOLENCE

Cabrera and Cabrera's [3] DSRP model provides a useful overview of the nature of systems that can be applied to humans as multi-leveled complex adaptive systems [4]. The DSRP model outlines four qualities of complex systems:

Distinction: Distinctions are made that create boundaries. Boundaries create parts.

Systems: Systems are formed by parts that connect to create wholes.

Relationships: Relationships exist between the parts and other parts and wholes.

Perspectives: Each part and whole has its own perspective.

The DSRP model can be linked to the principle of autonomy and connectivity. Each part needs autonomy. By noticing 'difference that makes a difference' [5] in an environment, a distinction is made and a boundary [6] is placed that defines the part. That autonomy of the part must be maintained or the part ceases to exist. Ashby's Law of Requisite Variety [7] further tells us that an effective system needs to maintain variety between the each of the parts, in order for the parts to be able to respond to a wide range of situations in which the overall system might find itself. Difference [8] between parts implies conflict to be resolved. Conflict can be resolved in ways that increase the well-being of the system, or in ways that are harmful to the system.

A system also needs connectivity, so the parts link together and interact in ways that enable the whole system to function effectively. The parts must cede some of their autonomy to foster cohesion within the whole. Connectivity creates cohesion, so the parts do not become too varied or dissimilar to be able to work together. Because the parts are connected to parts and wholes, there are flows [9] between the parts and between the parts and wholes across boundaries. The flows can be flows of matter, energy or information [10]. Those flows bringing vital resources to the system that must be maintained for its well-being. An open system is, therefore, left vulnerable to those flows if they do not adequately support the well-being of the system.

If autonomy is over-emphasised, the whole becomes disconnected and cohesion falls away. If connectivity is over-emphasised, the parts lose diversity and become servants of the whole system. There is, therefore, a dynamic tension between autonomy and connectivity that must be continually rebalanced for the system to operate effectively. The balance of autonomy and connectivity can, however, be distorted such that harm results either for the parts or the whole. Violence can thus be defined as *the invasion of a boundary or the disruption of a necessary flow across a boundary*.

This is a general definition of violence for any complex system. We next focus on human complex adaptive systems in order that the social implications of violence can be investigated.

3. HUMAN COMPLEX ADAPTIVE SYSTEMS

Human complex adaptive systems have their own characteristics. We are fractal [11], complex adaptive systems of systems [4], [12]. Within and between all the levels (such as physical, emotional, mental and spiritual, each with their own nested sub-systems) there is an enormous number of boundaries to be protected from potential sources of violence. At each level of functioning a person has needs [13] to maintain wellbeing. When we fear our needs will not be met, we feel anxiety that must be contained [4]. When our anxiety cannot be contained, we are more likely to respond from the immediate, self-preserving fight or flight response in the midbrain rather than the pre-frontal cortex that mobilises empathy and long-range thinking for a more effective response. A threat to identity or reputation is often felt as keenly as a threat to physical well-being. To demonstrate these qualities of human complex adaptive systems, a case study is employed.

4. RANGI AND ELIZABETH

A case study is introduced to explore how complex system dynamics leading to violence play out in the lives of people. Rangi is a composite of several people the author has worked with over the years. He is a 42-year-old indigenous Maori man, who was brought up amongst alcohol, drugs, and violence in a gang home. Rangi has been imprisoned several times. He has poor emotional regulation, resulting in impulsive bouts of anger arising from small trigger events. He was sent by the court to undertake a programme because of his arguing and abuse towards his partner, Elizabeth, who also had a difficult upbringing. Rangi struggled to attend the programme and was often loud and abusive. He was sent back to the court for non-compliance with a court order and eventually jailed again.

To investigate why Rangi and Elizabeth argue so often, we analyse an interaction between the two. Fig. (**1**) describes the interactions between Rangi and Elizabeth as they negotiate difference [5].
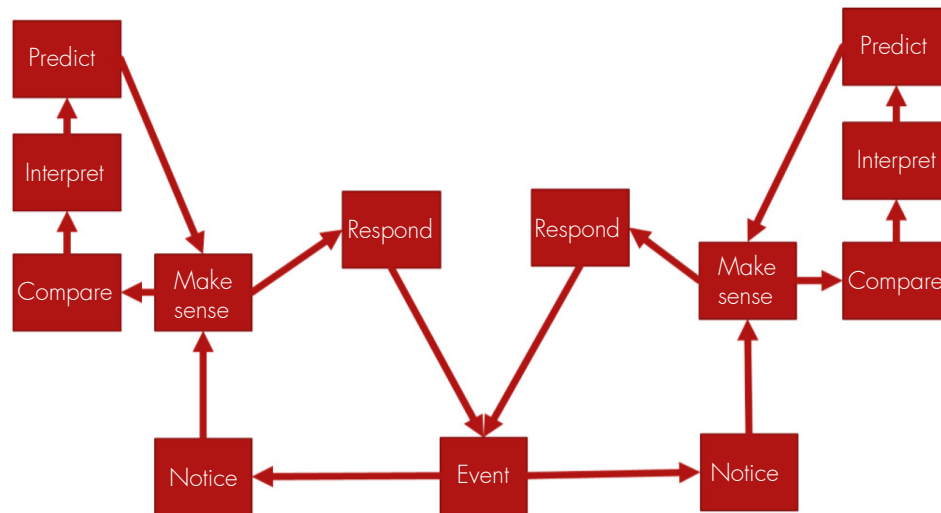
Fig. (1). Two people (such as Rangi and Elizabeth) interacting, creating recursive behavioural feedback loops. This diagram helps identify how violence might arise through their recursive interactions.

First, they appreciate [14] the situation they find themselves in by noticing the event. They notice what is happening in the wider environment and their internal reactions, each from their own perspective. Rangi processes the event, comparing it to past experiences through the filter of his lived experience and a resultant worldview that contains a set of core-beliefs [15] about himself, the world he finds himself in, the people in his world, and his future. These beliefs act like a map, helping Rangi navigate his lived experience. They become so deeply entrenched as to become unconscious and virtually invisible.

Rangi's life experiences have led him to have beliefs like, "I'm useless", "Those you love always let you down", "Everyone is out to get me", "Sooner or later, she'll cheat on you", and "Never back down". This has left him hyper-sensitive to flows across boundaries and the potential threat they might carry. He is constantly on the alert for signs that Elizabeth might be a threat. He has built very firm boundaries out of a perceived need to protect himself from harm and easily takes offence.

Elizabeth has similarly appreciated the situation according to the filters she has developed over the years, also making her hyper-sensitive to behaviours perceived as a threat. They both then compare what they notice to the worldview they have constructed from the boundaries and patterns they have enclosed themselves in. From that, Rangi and Elizabeth each formulate a response, which includes their response to the other's response, which then all feeds together to generate a new event, and the process cycles around forming recursive feedback loops. They can be seen as two structurally coupled, autopoietic systems [16], [1]. They are able to self-produce within their boundaries on all levels, but are synergetically bound together and interdependent through the recursive responses to each other. Two hyper-sensitive people are prone to setting up destructive recursive behavioural feedback loops, which can be triggered and escalate very quickly.

Gottman [17] writes of 'harsh start-ups', whereby an initial harsh comment can constitute a butterfly effect [18] that has a high likelihood of generating a harmful positive feedback loop [7], whereby each harsh response invites an equal or harsher reply and the interaction quickly degenerates beyond a tipping point [19] into an argument or even violence. If a negative feedback loop can be initiated the impact of a harsh start-up is reduced and an argument may be avoided.

Each comment is thus like an invitation for the other to respond in a like manner, escalating tension, although an aggressive response can also force a passive response and a passive response can invite a hostile response [20]. Like any invitation, however, there is a choice as to whether to accept the invitation to escalate or not. Gottman and DeClaire [21] also write of bids for connection. In a healthy relationship, there are constant bids for connection in such forms as smiles, touches or kisses that are reciprocated. As a relationship becomes less healthy, bids are more commonly ignored or rejected.

Whenever we place a boundary, what is placed inside that boundary is generally favoured and familiar. That which is beyond the boundary easily becomes the 'other' or marginalised [22] and becomes seen as a potential threat or enemy. Gottman notes a tipping point [19] in relationships when the partner shifts from being someone within my boundaries, whom I support even if I find them difficult, to being 'the cause of my problems' and 'the enemy', beyond which relationships generally become irredeemable. Once a threat is perceived (whether it is real or not), it is easy for a partner to be 'othered' [23] and a 'retaliatory attack' feels 'justified' as a means of protection.

As a result of Rangi's violence towards Elizabeth, he was arrested and appeared before the court. He was sent to undertake a programme to address his violence. With encouragement, Rangi was willing to acknowledge that as a result of his dysfunctional upbringing, he had developed habit patterns for responding to situations perceived as threats that were abusive and harmful to others. He acknowledged feelings of guilt and shame for what he had done to his partner, Elizabeth. Ironically, his lack of emotional regulation and impulsive outbursts, meant not only that he abused Elizabeth, but he was unable to control his emotions while attending the programme. He was hyper-vigilant about any comment that might threaten his existing sense of himself. His aggressive behaviour towards staff and other participants in the programme meant he was disengaged from the service and sent back before the judge. In the meantime, his abuse of Elizabeth, fuelled by drug use, had continued and Rangi was arrested and subsequently imprisoned.

Rangi obviously needs to take responsibility for his actions and learn new, non-violent ways of responding to difficult situations. Many of the skills he needs are cybernetic skills:

1. Observing the system. First, this means observing himself. Rangi can build awareness of his own emotions and motivations, learns to control his emotions better (by learning skills like distress tolerance [24]).
2. He can observe others more closely. This will build empathy for other people around him, can reflect on his actions and their consequences (Bateson's learning II [8]). He will also recognise that his perspective is only one perspective and there are other ways to understand or reframe the events he is experiencing.
3. He can notice the relationship between what he observes in himself and what he observes in others. He will be more alert to the impact of his actions on others and notice how modifying his behaviour changes the behaviour of others. He will better recognise leverage points [25], better anticipate future risk situations [25], build an awareness of his boundary placements [26] and their impacts.
4. He can learn to use cybernetic thinking instead of black and white, linear thinking. This includes accepting uncertainty, expecting unintended consequences, thinking of the impact of implicit consequences of having chosen one thing over another (*e.g.* spending money on alcohol rather than rent or his daughter's birthday), not focussing aggression on the immediate target (*e.g.* being aggressive to a bailiff as the visible face of the court system).

Midgley and Pinzon [22] demonstrated widening boundaries to include other perspectives, and dialectic systems thinking whereby a counter-argument to a situation is specifically sought, which can be guided towards a synergistic "third way**"**. They also showed how conflict can arise because one person places boundaries differently to the other, which creates a marginal area where conflict can arise. Having explored violence at the level of an individual person, a wider understanding of violence can be gained by looking at the context in which Rangi lives.

5. STRUCTURAL VIOLENCE

The focus so far has been on parts that invade or interfere with other parts or with the whole. We now turn our attention to systems where the whole over-constrains and controls the parts so they lose autonomy and the whole system becomes less effective. This is what Galtung [27] describes as structural violence.

The parts initially came together because they could achieve more than they could on their own. An infrastructure becomes necessary to co-ordinate the operation of the parts, so the whole maintains coherence. As the whole becomes bigger, however, an increasingly larger infrastructure becomes necessary to co-ordinate all the interactions [28].

If the prime directive of a system is to maintain its function and well-being, then it must be able to impose constraints on the parts to conform sufficiently to meet the needs of the whole. If the parts are unwilling or unable to operate within those constraints, mechanisms then need to be put in place to impose further constraints over those parts, lest the whole system loses coherence and descend into anarchy. This leads to a tension within the system. The infrastructure is set up for the parts, but at times, the infrastructure must impose restrictions and controls over dissident parts.

This whole situation becomes very messy [29] when we add human dynamics to the mix. They are fallible human beings who have their own perspective and biases, driven by their worldview and core beliefs, who must decide where boundaries need to be placed, determine when a part has transgressed a boundary, and how that transgression should be sanctioned. Acts of omission can be as destructive as acts of commission. With the best of intentions, the whole can perpetrate violence on the parts in any manner of ways. Unfortunately, those who have control over the infrastructure do not always act with the best of intentions. Individuals within the infrastructure can fall prey to prioritising their own needs and desires, or the needs of the whole for itself over their role as the guardian of the whole for the parts. The whole system can then be subverted to oppress the very parts that constitute it. The threat of a loss of livelihood or status of an official in the infrastructure can cause them to manipulate the system for their own protection causing harm to the parts.

Those in control can directly invade boundaries and manipulate the flows through the system, directing it in certain directions and denying it to others. The ancient empires, such as the Greeks, Egyptians, Persians, Chinese, and the Aztecs mainly used direct violence or the threat of direct violence to maintain their control over the people they dominated. Over time, it became apparent that such blunt use of violence was not necessary to maintain control and cohesion. The Romans, who were also brutally violent, found the power of having a state religion. They established a unifying set of core beliefs that would bind people of widely diverse cultures and impose self-regulating constraints on those under its power. People could be bound by ideas as much as by tortuous crosses. Christian [22] notes that with the shift from physical violence to belief systems came a deep-seated sense of anxiety, disconnection and disorientation as emotions as external control shifted to internal control. Structural violence includes the knowledge that, in last resort, the state has access to legitimised violence. Indeed Weber [30] defines the state as "a human community that (successfully) claims the monopoly of the legitimate use of physical force within a given territory." For most people, who live within the constraints of the society, this violence never is never apparent, but it is nevertheless ubiquitous. In New Zealand in 1977 hundreds of protesters moved onto land at Bastion Point [2] in the middle of Auckland city that indigenous tribes claimed had been stolen from them by the crown. The occupation lasted for nearly eighteen months before Police came and forcibly arrested over two hundred protesters. Apparently, a kilometre or so down the road there were army trucks with armed soldiers. This encapsulates for me the hidden threat of violence the state always has at its disposal. It is only those who cannot or choose to not to align their behaviour within the constraints determined by those in control of the infrastructure, who experience the raw violence of the state.

Gramsci's concept of cultural hegemony describes how those in control of the infrastructure get to define the worldview and socially accepted core beliefs [31–34]. From the day of our birth, we absorb a worldview through our interactions with others that forms a shared cognitive framework enabling us to communicate and co-operate. That same worldview, however, also inculcates the power distortions and subtle controls of the society. The violence perpetrated through the system to the parts becomes normalised and invisible. We are caught in the double bind [8] that we must have these shared beliefs to interact, but they are so susceptible to being vehicles for perpetuating structural violence.

We willingly take on roles within the whole that maintain and sustain the existing paradigm. We take out mortgages to buy houses and in return support our own oppression by taking roles of teachers, police officers, prison workers that educate people into the accepted narrative, monitor behaviour and sanction transgressions. The system is so powerful, not because of how it manipulates our external world, but because it is totally embedded in and defines in our inner world [35]. We cannot live within our society without accepting this Faustian bargain.

The whole neo-liberal paradigm is structured around a narrative of the ability of an individual to achieve whatever they want if they try hard enough, and prioritising the valuing of money and profit [36–38]. In actual fact, there is far from an even playing field where all can achieve their goals. As observed in the conservation phase of the adaptive cycle [39], those agents who gained ascendency in the early growth phase can block out the others wishing to get established later. Values of community, equality, and justice have been bypassed, justifying the 'othering' of the vast bulk of the population. This predatory capitalism [40] has enabled the destruction of the environment, the marginalisation of people, enslavement by debt as the profits are accumulated into the hands of literally a few dozen people at the expense of the rest. The neo-liberal paradigm is like a dragon that eats its own flesh. Having devoured the first world and lower classes of the first world. It is now devouring the middle classes. How long can the dragon continue devouring itself with its suicidal behaviour before it collapses totally? These general societal influences impact the lives of individuals.

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[2] https://nzhistory.govt.nz/keyword/bastion-point

6. THE CRIMINAL JUSTICE SYSTEM

To return the focus to Rangi and Elizabeth, we next investigate the criminal justice system because that is the societal system that impinges on their lives the most. Because of the author's experience, the focus is on the New Zealand criminal justice system, but the principles are reasonably generalisable to other countries. The criminal justice system has the function of determining and carrying out the remedies for transgressions of the societal constraints as agreed through parliament. Rangi was unable to use self-discipline to control his behaviour, so discipline is imposed by external agencies. There are a number of paradoxes or double binds [5] that must be negotiated in work with people who have used violence.

Some of the constraints imposed by the whole system are necessary to enable the harmonious interactions amongst citizens, while others are a part of maintaining dominance over the populace. Any distortions or biases in the undergirding myths and metaphors, such as racism or sexism filter down to the worldview, to the social structures and finally manifest in the day to day lives of the people [41]. The lived experience of large numbers of people means they are more likely to come under the gaze of the criminal justice system. They can expect lower educational outcomes, poorer health, poverty and much more. Some people come to the attention of the criminal justice system because they do not have the required skill set to remain within the imposed societal constraints. These are Kohlberg's [42] pre-conventionals. Others are able to live within the imposed constraints, but recognising the iniquities of the system choose not to comply. These are Kohlberg's post-conventionals.

By using internalised self-coercive mechanisms most of us live our lives within the proscribed rules set (both spoken and unspoken), but at a cost of ceding some of our vital essence. Outliers like Rangi, however, bear the brunt of the structural violence that usually remains hidden and potential. Once caught up in the criminal justice system, it can be very difficult to leave. To reiterate, Rangi is responsible for his own actions, however, it is noted that vicious cycles often emerge.

Once a person comes to the attention of the Police, they will be observed more than other people, picked out of a crowd, and immediately suspect. Sentences become progressively more severe and prison is often a place to learn more about criminal behaviours. People like Rangi typically lack resources of education and money, that help facilitate fair treatment within the criminal justice system. This can form a positive feedback loop that gets worse and worse. The reporting and attendance requirements can become onerous, especially if there are other impediments like a lack of transport, mental health issues, addictions etc. The more Rangi struggles with the injustices he faces, the more he is seen as resistant and is further marginalised. Extra penalties then further entrap him within the system.

The criminal justice system operates at core in a very dualistic way. A person is guilty or not guilty, an offender or a victim[3]. While this makes the process of identifying transgressions and imposing remedies simpler, a cybernetic perspective will quickly tell us that it does not match up to real world realities.

With very fixed, dualistic roles of offender and victim, the offender is 100% responsible for the situation and the victim 0%. The offender must take responsibility for their actions, irrespective of the actions of the victim. There are times when the division of responsibility is this clear. One person has clearly unacceptably invaded a boundary and caused harm. The reality is usually far more fuzzy [42]. There can be provocation, manipulation and any number of ways that assigning responsibility is less clear. It is exacerbated also by the frequent lying, exaggerating or otherwise obfuscating the version of events, consciously or unconsciously, by all involved.

The author attended a meeting of an offender and victim. The offender was told, "You are at fault because of your behaviour. It is totally up to you to repair the damage you have done." The victim then tried to say that she had issues (like drug use, mental health issues, trauma from abuse in previous relationships) that made it hard for the offender to cope. She was told, "You can sit down, this is nothing to do with you. You are the victim." Both felt disempowered. The offender felt overwhelmed by the tasks he was given, the victim felt that there was nothing she could do to improve her situation. In reality, the perpetrator is often also a victim and the victim often a persecutor. Unless they both learn how they impact on the relational dynamics, the same patterns of behaviour will continue to be experienced.

If an argument occurs, it does so co-creatively in the relational space [1] between the two people arguing. Neither is in control, but both influence the dialogue. Karpman's triangle [20], often used in programmes for offenders, which recognises that dysfunctional relationship dynamics often result in agents taking on the role of perpetrator or victim (the

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[3] While concepts such as mitigating factors add some flexibility to the decision making, it remains at core still dualistic.

third agent is the rescuer). He notes that the perpetrator's aggressiveness can lead to the other taking on the role of victim.

Counterintuitively, it can be tempting to take on victim role. The victim does not have to take responsibility for their actions. They can blame the perpetrator, instead of taking responsibility for themselves. Playing a victim role can invite aggression. The paradox is how to work with this without further victimising the victim.

The range of rehabilitation programmes used in New Zealand are designed to encourage better control over thoughts and emotions, build empathy, teach coping skills and set positive goals for the future. They are strengths-based [43] focussing on building and encouraging positive attributes and use techniques like CBT [15], DBT [44], and mindfulness [45].

Many people attend such rehabilitative programmes and learn skills that enable them to interact with others more effectively and lead non-violent lives. Others, like Rangi, remain caught in abusive behavioural patterns. Since his behaviour on the programme was abusive towards staff and others and a threat to their well-being and safety, it was right that he was discharged from the programme, however, this reinforces the vicious cycle. Motivational interviewing [45] (another frequently used technique) has a principle if the client is resistant, the problem is with the clinician needing to develop skills rather than blaming the client for being resistant.

CONCLUSION

The operation of violence, both from the perspective of an individual as a part in a wider system being violent to another or from the perspective of the whole system perpetrating violence on the parts that constitute it, the dynamics is far from linear. There are many skills a person prone to using abuse and violence can use to build resilience and live without resorting to old habit patterns. Cybernetics introduces many ideas and concepts that help build these skills. Violence is often treated in a linear way with a clear offender and a clear victim, because it makes the process much simpler, but in the end, we must come to terms with the fuzzier aspects of the inter-relationships between individuals and the coercive nature often demonstrated by social systems on the individuals those structures are there to support.

CONSENT FOR PUBLICATION

Not applicable

CONFLICT OF INTEREST

The authors declare no conflict of interest, financial or otherwise.

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