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Crime as a cascade phenomenon

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ABSTRACT

The Peacebuilding Compared project deployed South Asian data to conclude that war tends to cascade across space and time to further war, crime to further crime, war to crime, and crime to war. This article is an analytic sketch of crime as a cascade phenomenon. Examining crime through a cascade lens helps us to imagine how to more effectively cascade crime prevention. Like crime, crime prevention often cascades. Braithwaite and D'Costa (2018) show how peacemaking can cascade non-violence, how it cascades non-violent social movement politics, and vice versa. Seeing crime through the cascade lens opens up fertile ways of imagining macrocriminology. Self-efficacy and collective efficacy are hypothesised as catalysts of crime prevention cascades in such a macrocriminology. Australian successes with gun control and drunk driving point to the importance of explicitly connecting evidence-based microcriminology to a macrocriminology of cultural transformation. More structurally, building collective efficacy in families, schools and primary work groups may cascade collective efficacy into neighbourhoods and vice versa. The microcriminology of hot-spot policing might be elaborated into a macrocriminology of inkspots of collective efficacy that cascade and connect up.

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Criminology's neglect of cascade explanations

The assassination of President Kennedy in November 1963 was followed by a steep, sudden increase in violent crime (Berkowitz & Macaulay, 1971). At the time this seemed out of the ordinary. Yet we might look back at the history of American violence since the early 1960s as a cumulative sequence of cascade shocks in which this assassination, Martin Luther King's assassination that sparked fires across America, and other acts of racial violence, *From Reverend King to Rodney King* (Gale, 1996), counted among many important moments which were mostly more local triggers of violence cascades. State violence against protestors for civil rights and against the violence of the Vietnam War was perhaps another 1960s cascade at the beginning of the US crime rise that stretched from the 1960s to 1992.

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This section reflects upon and challenges the limited interest of criminology in cascade explanations compared to other sciences. Then the article specifically puzzles over the limited interest in hot spot policing as a cascade phenomenon after it was found mostly *not* to displace crime. Analytic advantages of reframing gun violence, drunk driving, drug dealing, burglary, intergenerational transmission of criminality, life courses of crime, looting, rioting, corporate crime and war crimes as cascade phenomena are then briefly pondered.

This opens our eyes to crime prevention cascades. Can we catalyse a criminological imagination for purposively nurturing cascades of crime prevention? Special note is taken of the National Rifle Association's mobilisation of information cascades and political interests to promote gun culture. Braithwaite and D'Costa (2018) discuss at length Islamic State's exploitation of stigmatisation of Muslims with information cascades to promote murder. These activist imaginaries are interpreted as models for how crime prevention and non-violence might also be cascaded. Alcoholics Anonymous (AA) is then diagnosed as a model because of the way its Step 12 involves volunteering to help others recover. AA was influenced by Christian ministry and volunteering for missions of macro-cultural transformation. Christianity was itself a globally massive cascade phenomenon after all. From a crime prevention perspective, however, the genius of the AA cascade is that it connects self-efficacy to collective efficacy. I draw a conclusion from this that a cascade imaginary implies a more macrocriminological criminology. Criminology has never had a Keynesian moment. Keynes in his general theory positioned macroeconomics more centrally in his discipline and concentrated the minds of policymakers on what institutions were needed (the New Deal) to prevent another crisis where a herd of "animal spirits" cascades off a cliff as in 1929 (Keynes, 1936/2018).

Cascade phenomena are defined as those that spread to multiply instances of themselves, or to spread related phenomena. These related phenomena that cascade might be objects like guns that spread simply as objects in markets rather than as social or biological contagions. The guns may cause an epidemic or cascade of violence but not a contagion in the sense of something that spreads person to person (Fagan, Wilkinson, & Davies, 2007). All contagions are cascades and contagions are the most important kinds of cascades. I interpret cascades as the more general phenomenon. Cascade explanations are staples across the physical and biological sciences: the cascading of particles in particle physics; cascading of particular particles called bacteria and viruses with infectious contagions; environmental cascades to climate change; cascading of liquids (lava, water) in the geological formation of planets (Kun, Varga, Lennartz-Sassinek, & Main, 2014). In the social sciences, cascade explanations have also been common. Examples are Rosenau (1990) in international relations, Sunstein's (1997) norm cascades, Kuran's (1998) repetitional cascades, Hale's (2013) regime change cascades, Sikkink's (2011) cascades of criminal enforcement for crimes against humanity, and Gladwell's (2000) cascades past "the tipping point" that spread "like viruses do" (Gladwell, 2000, p. 7). Contagion in biology and cascades in the social sciences have a shared core of meaning: the existence of a phenomenon induces the spread of more phenomena of that type (or mutations upon it). In both cases, an analytic shift is demanded from exogenous to endogenous explanation as a priority; to the reversal of cascades and the triggering of counter-cascades.

With crime, we have long known that people are more likely to cheat on their taxes if they perceive a lot of cheating among others (Sheffrin & Triest, 1992; Frey & Torgler, 2007) and if tax haven and tax shelter opportunities are cascading (Braithwaite, 2005). It has long been known that contagion effects are particularly likely with high profile crimes such as hijacking, assassinations, kidnappings and spates of serial killing (Bandura, 1973; Berkowitz, 1973; Landes, 1978). Hijacking took off in the 1970s, then virtually ceased in the two decades before 2001, whence it cascaded to a more diverse multiplicity of terrorist scripts. Generations of developmental psychologists have been interested in how phenomena like aggressive disruptive events in classrooms can cascade to one lifecourse setback after another that spiral to leave a young person in a desperate situation (e.g., Masten et al., 2005). Crane (1991) scales up this kind of micro process to a macro contagion model of ghetto formation, showing how cascading social problems pass ecological tipping points. Peer influence is Crane's critical mediating mechanism for these cascading problems, which is also

central in differential association theory in criminology alongside cultural cascades of normative meaning. These are also posited as key cascade mechanisms in the theory of collective efficacy in the analysis of this article.

Non-criminologists have been more fascinated by cascades than criminologists. Mathematician Quetelet (1842) was puzzled by the high statistical variance in crime across space and time. Economists Glaeser, Sacerdote, and Scheinkman (1996) puzzled further that this variance is so huge compared to variables that are seen as candidates for explaining variation. This leads to the hypothesis that cascading on itself might provide a better explanation than exogenous change. Miranda Forsyth's (2018a) contemporary fieldwork on sorcery contagions in Papua New Guinea illustrates. A district that has never before experienced sorcery-related violence suffers one accusation against one sorcerer and in a short space of time violence is being directed by many against many who are accused of sorcery. The history of sorcery-related violence in the United States and Britain has similarities, with most places and times having none at all, and then a sudden convulsion into a cascade of violence that can be pondered in great art such as Arthur Miller's *The Crucible*.

When we inspect homicide rates for different years and different countries, the Quetelet (1842) pattern is still evident. We find annual rates recorded over 100 homicides per 100,000 population. El Salvador reached the high 120s for several years in the mid-1990s, for example (Braithwaite & D'Costa, 2018). Then we find more than 50 countries that have had rates well under 1 in recent decades. Domestically, we find census tracts with crime rates much more than 100 times the rates for the lowest tracts within a country. Some western countries also seem to have 100-fold differences between peak and trough homicide rates across the past millennium; England recorded a rate of 100 in the mid-1300s and below 1 for much of the past century, for example (Eisner, 2014, p. 80).

Glaeser et al. (1996) argued that the differences are huge compared to variance in the variables most commonly used for explaining variation. This is true if we think about the comparatively modest percentage differences in demographic profiles, or in average incomes, or in the percentages of people unemployed between high and low areas, and indeed in more sociological variables like collective efficacy. As economists, Glaeser et al. reason that the variance in crime rates is too high to be explained by exogenous changes in rational incentives, by variation in costs and benefits of crime. They find variance to be too high to be capable of being rationalised "as the outcome of independent decisions to engage in crime" (Glaeser et al., 1996, p. 542). Criminologists can reasonably dismiss this concern as a consequence of economists being too narrowly focused on rational calculation of absolute numbers. Yet perhaps criminologists should not be as dismissive when economists turn to the kind of absolute numbers that *could* explain huge variances. Glaeser et al. point out that interactions among people could cascade to explain the variance. If one crack cocaine dealer interacts with five others to persuade them that becoming a dealer is smart, and each of them so persuades five others, and so on, then simulations show this dynamic can multiply huge space-time variance between a point in space-time where that process takes off and places and times where there has been no trigger of the cascade.

Loftin (1986) is one criminologist who argued that in cities like Detroit in the 1960s fear from rising crime cascaded gun ownership which in turn fed into the cascading of rapidly rising homicide (note also the cascades of fear, disorder and decay in Skogan (1990)). Public health scholars used to connect rising crime in New York's disadvantaged areas to an accelerating contagion of social disintegration up to 1992 (Wallace & Wallace, 1990). Criminologists had tended not to theorise the reverse crime drop in New York after 1990 as a reversal downwards of that cascade when the city's opportunity structures recovered, readjusted and took off again after the shocks of the era of deindustrialisation.

Then Fagan et al. (2007) articulated a cascade explanation of the great New York crime rise and fall that is consistent with what is known about these dynamics in a good number of other U.S. cities, even if their trends were not quite as steep as for New York. Their argument follows in the footsteps of William Julius Wilson's (2012) *The Truly Disadvantaged*. Fagan et al. showed that there was nothing general about it. It was overwhelmingly about young African American males in neighbourhoods devastated by the deindustrialisation that peaked in the 1980s:

As middle- and working class African American families moved away from the inner cities when their jobs left, there remained behind a disproportionate concentration of the most disadvantaged segments of the urban populations: poor female-headed households with children and chronically unemployed males with low job skills. The secondary effects of this exodus created conditions that were conducive to rising teenage violence: the weakness of mediating social institutions (e.g., churches, schools), and the absence of informal social controls (Fagan et al., 2007, p. 702).

Deindustrialisation was not confined to New York, but was quite a general phenomenon in the West, and so was the crime rise from 1960. Neither the particular chronology of this crime rise nor the deindustrialisation were general beyond the west (not in developing countries that had not industrialised and still have not, not in tiger economies where the western factories initially fled). Economists now are on board the William Julius Wilson evidentiary bandwagon that the shock of deindustrialisation disintegrated black families, driving up black male unemployment and idleness, loss of meaning, insecurity, unwed motherhood, single-parent families and many other social challenges (Autor, Dorn, & Hanson, 2018). Fagan et al. interpreted the rise and fall of violent crime in New York since the 1960s as

indicative of a nonlinear pattern in which the phenomenon spreads at a rate far beyond what would be predicted by exposure to some external factor and declines in a similar pattern in which the reduction from year to year exceeds what might be expected by linear regression trends. This leads to the second perspective: the factors leading to its spread are not exogenous factors, as in the case of contamination or disaster. Instead, the nonlinear increase and decline suggest that the phenomenon is endemic to the people and places where its occurrence is highest and that this behavior may be effectively passed from one person to another through some process of contact or interaction (Fagan et al., 2007, p. 689).

At the macro level, the qualification is in order that the U.S. national crime trends are steep but rather linear, both in the crime rise from 1960 to 1992 and in the drop since (Sampson, 2019: Figure 1). Fagan et al. (2007) covaried neighbourhood social and economic characteristics with temporal homicide trends. This identified gun homicides as the key contagious agent. It was “gun homicides that diffused across New York City neighborhoods, and gun homicides that retreated just as quickly” (Fagan et al., 2007, p. 690). Fagan et al. interviewed young males active in gun violence; this showed qualitatively that diffusion arose in a dynamic process of social contagion. They connect the gun homicide cascades quantitatively and qualitatively to three sub-epidemics in retail drug markets: one of heroin that peaked in 1972; a second of powder cocaine peaking in 1981 and a third of crack peaking in 1991. Golub and Johnson (1996) confirmed empirically that the crack cocaine epidemic was indeed a cascade phenomenon. It was a word-of-mouth diffusion of innovation that saw existing powder cocaine snorters move to crack in a huge surge between 1984 and 1986. Guns cumulatively became the basic tools of routine business activity in these booming drug markets. This in turn infected everyday disputes with an “ecology of danger” (Fagan & Wilkinson, 1998). Fagan et al. (2007) concluded that guns were at first an exogenous factor in cascading violence but became an endogenous cascade within socially isolated neighbourhoods of the deeply disadvantaged.

Quantitatively, Fagan et al. (2007) discovered that the occurrence of at least one adolescent homicide in a census tract significantly increased the likelihood of adolescent homicide in surrounding neighbourhoods. It was actually only gun homicides that were contagious in producing other gun homicides (but not non-gun homicides), controlling for neighbourhood characteristics. In the 1990s, economic opportunities in the neighbourhoods that drove up the crime rise gradually improved; disadvantage became somewhat less ecologically concentrated; and crack became much less appealing to young people, perhaps to the point where small initial reductions in gun homicides then accelerated to a crime drop cascade.

Mohler (2013) showed Chicago contagion effects explained more than half of property and violent crimes in Chicago and that half of the increases in terrorist events could be explained by contagion in a Northern Ireland data set. In Falluja, Iraq and Israel, civilian terror and conflict death contagion effects were much less, explaining only 23 and 12 per cent of the violence respectively (Mohler, 2013). Papachristos, Wildeman, and Roberto (2015) also revealed gun crime patterns in Chicago consistent with the Fagan et al. (2007) New York cascade patterns; they found that

70 percent of all nonfatal gunshot victims during the observation period could be located in co-offending networks that comprised less than 6 percent of the population of the city. A 1 per cent increase in exposure to gunshot victims in one's network increased the risk of becoming a victim oneself by 1.1 per cent, holding all else constant (Papachristos et al., 2015).

Mennis and Harris (2011) revealed spatial cascades, measured as the rate of recidivism for specific types of delinquency. Proximity to a juvenile offender's residence increased the likelihood of cascade to others innovating with that type of offending, with the cascading of neighbourhood delinquency specialisations being especially strong for drug offences. Their results support peer contagion in crime specialisation. Differential association theory always identified such patterns as contagiously causal, but of course there have always been critiques that challenge this with counter dynamics of birds of a feather flocking together or shared third variables as explanations.

Information cascades where people make decisions on the basis of their observations of other peoples' actions seem particularly attractive for explaining why criminal behaviours like looting or rioting are normally near zero, but can multiply quickly once someone starts a stampede (Ellis & Fender, 2011). Herding into illegal tax shelters is likewise an information cascade phenomenon (Braithwaite, 2005). Braithwaite and D'Costa (2018) note that more common kinds of crime also behave like wars in this regard, as they sought integrated explanation of crime-war clusters. They point out that the best explanation of whether one's house will be burgled in the next six months in many countries is whether it was burgled in the last six months (Pease, 1998); and likewise, the best explanation of whether one's country will suffer a war this year may be whether it suffered an earlier war in the past three years (Braithwaite & D'Costa, 2018). Likewise coups predict more coups, genocides more genocides at the inter-country level of analysis.

When criminologists found that most crime could be concentrated at three per cent of the addresses of large cities (Sherman, Gartin, & Buerger, 1989) and that policing strategies concentrated at those hot spots could substantially reduce crime at them (Weisburd, Telep, Teichman, & McClure, 2011; Braga, Papachristos, & Hureau, 2014), the natural reaction of criminologists was cynical. How could simply "putting cops on the dots" be effective? Cynicism steered criminologists to the hypothesis that criminals will respond by shifting their crime from old hot spots to nearby locales, or to create new hot spots. Subsequent research did not bear out this displacement hypothesis (Weisburd et al., 2011). Indeed, it showed that hot-spot policing not only reduced crime at the hot spot, but there were also positive spillovers in reducing crime to lesser degrees in areas surrounding hot spots (Weisburd et al., 2011). Recent research with a strong design in Bogota, Colombia shows more modest impacts of hot spot policing strategies (Blattman, Green, Ortega, & Tobon, 2019) and Nagin and Sampson (2019) raise important questions about how to correct for the effects of reduced policing at non-hot-spots. But the issue that interests me is why did not criminologists proceed from more evidence for diffusion than displacement with a sense of excitement at the surprise of having their expectations reversed? Why not explore and develop a converse theory that there may be cascade effects of crime prevention success? Why not build the model of targeted hot-spots into a model of inkspots of civility that spread? Criminologists tend not to respond to overturned cynicism with excitement. They do not jump at the opportunity to build dynamic theory on new inductive insights. They prefer to move on to cynicism about something else that they can test with static methods. The tendency of criminology to discipline young minds with an exogeneity obsession is just an example of a wider pathology of recursiveness as something to be controlled rather than savoured and developed, and dynamic theory development as something to push aside in the rush to test first statements of static new theories. To be fair, medicine also had an exogeneity bias, clinging for centuries to beliefs that contagions were a result of exposure of human populations to the same exogenous factors in the atmosphere.

Modelling, mercenaries, macro-cultural shifts

What other cascade clues are evident in emergent patterns of criminality? What facts might be reinterpreted thorough a cascade lens? Consider the high level of mass shootings in the United

States this century, compared to Australia. One way of seeing this, popularised by the filmmaker Michael Moore, has been that this is a result of the contrasting response of Australia when it had a mass shooting in 1996. Australia greatly toughened gun laws and funded a national gun buy-back in 1996. Australia has not had a mass shooting since 1996 and greatly reduced rates of gun shootings, so this inference is reasonably warranted within the limits of a comparison of two countries (Chapman, Stewart, Alpers, & Jones, 2018). Even if true, it is also true that Australia was galvanised by the shock of the 1996 Port Arthur massacre to cascade a transformational rejection of gun culture across its society, whereas in the United States, this has not yet happened. The societal consensus behind the transformation was strong in Australia; it was led by the most conservative prime minister Australia had had in half a century and no member of parliament voted against the new gun laws. That is to say, a cultural cascade might be the operative variable rather than the gun buy-back per se. And this might explain why meta-analysis effects of gun buy-backs alone are weak (Makarios & Pratt, 2012).

American political elites have historically put their hands out to the NRA to cascade ambivalence about gun culture. Perhaps in 2018 a new generation of high school students marched to Washington to seize the collective efficacy for gun culture transformation. That is too early to call. Albert Bandura (2000) draws the criminological findings on collective efficacy together with a variety of experimental studies to sustain the more general conclusion that groups with high perceived collective efficacy achieve higher motivational investment in their undertakings, stronger staying power in the face of impediments and setbacks and greater accomplishments in collective search and pursuit of pathways to change. Bandura (2000, p. 1) conceives collective efficacy as “shared beliefs in the power to produce effects through collective action”. Up to the time of writing, the National Rifle Association has been effective in cascading a counter-narrative of collective efficacy, partly through an information cascade in social media, that the society needs more guns to protect itself. Indeed after mass shootings gun sales have often spiked (Wallace, 2015).

Is there also a cascade in the imaginaries of mass shooters, an emulation effect as one disturbed person takes the lead from other disturbed persons that a way to resolve anger at their school or workplace is to start shooting? Towers, Gomez-Lievano, Khan, Mubayi, and Castillo-Chavez (2015) showed a substantial contagion effect in the US, with each mass shooting inciting 0.3 future incidents. We know high profile celebrity suicides cascade to increased suicides by ordinary people (Stack, 2005) and that media coverage of suicide generally contributes to cascades of suicides (Gould, 1990). Suicides temporally cluster in China as well in ways statistically associated with media reporting prominence of previous suicides in the cluster (Cheng, Chen, & Yip, 2011). The fact that media reporting is a mediating mechanism increases the plausibility of the interpretation that a social cognitive cascade is in play rather than an exogenous factor simultaneously stressing contiguous actors. One reason indiscriminate shooting at a purported source of grievance has not gripped the imaginaries of disturbed young Australian men is that a cascade of this imaginary never gained momentum because of the macro-cultural character of the response to the 1996 mass shooting.

Since 2001, the world has seen the cascading of another kind of purposive killing, suicide bombing (Braithwaite & Li, 2007). Part of the “strategy of savagery”, the “management of savage chaos”, of Islamic State in Naji’s (2006, p. 11) canonical ideological text is to appeal to mentally disturbed young people, among other targets, to become mass killers. Again, information reproduction on social media is an important part of the intentional strategy to cascade savagery, as is collective efficacy that Muslims can transcend centuries of humiliation and tyranny by infidels to rebuild the Caliphate. With certain growing cascades of violence, such as suicide bombing and paedophilia-related violence, the problem might be that before the internet, these violent networks were insufficiently dense to cascade, but cyberspace delivered the density to cascade through internet connection. These two cascade reframings go to why cascades of violence are rarely best understood as individualistic forms of human emulation. Whether it is gun culture promoted by the National Rifle Association or suicide bombing by Islamic State, we might best build our understanding by looking for purposive action by those with an interest in promoting the cascade. We see

this later with another kind of cascade of violence, from war to more war. When one country directs warlike action towards another, this creates opportunities for hawks to break out of the cages that civilised societies mostly keep them in. Hawks seize such moments to purposively use the warlike actions of the other to demand aggression in response. The search for interests that lie behind cascades of violence has not been prominent in macrocriminology.

The hot-spot policing finding that crime prevention success can cascade violence reduction is evident in many places, including war zones, should criminologists care to see them through a cascades lens. Some criminologists have argued that the historical data on rates of domestic violence support the conclusion that feminism as a social movement has made a global contribution to cascading reductions of violence against women. Ahmed, Harris, Braithwaite, and Braithwaite (2001) and Braithwaite and D'Costa (2018) argue that feminist social movement politics has constituted violence against women as more shameful. Pinker (2011) and Broadhurst, Bouhours, and Bouhours (2015) put more emphasis on this happening through a feminist form of collective efficacy that has broadened civilising effects (Elias, 1982) to benefit women in violence reduction since Second Wave feminism in the United States, the United Kingdom, and beyond to other countries like Cambodia (Broadhurst et al., 2015). Again for Pinker and Braithwaite alike, theoretically there is purposiveness of political action at play in these cascades of violence reduction, purposive collective efficacy of anti-domination feminist politics.

When gun carrying in public places reduced in the “Wild West” of the United States, when duelling cascaded downwards towards extinction a century earlier in the United Kingdom, there were purposive moral entrepreneurs of norm cascades behind the scenes. They were local sheriffs who mobilised community support to ban side-arms in saloons and push ordinances prohibiting concealed weapons in cow towns by the 1870s (Utter & True, 2000). There were aristocrats who insisted that honour be redeemed in better ways than a challenge to a duel. An example was the way the eighteenth century reign of Beau Nash at Bath banned the wearing of swords at balls and other social occasions in the aristocratic nightlife capital (Trevelyan, 1985, p. 385). My argument is that these sheriffs and aristocrats cascaded preventive collective efficacy.

Ross Homel's (1988) research reveals a purposive campaign to cascade a norm change. So far, it would seem to have saved more than 10,000 lives since the introduction of police random breath testing for drunk driving in Australia.¹ Rather like the Australian gun buy-back example, Homel reports that the effectiveness of Australian introduction of random breath testing was much more profound than reported from other countries in the wider evaluation literature. Homel did not interpret this as a pure deterrence effect. He struggled to see why the introduction of random roadside breath testing had such a large effect in reducing drunk driving in Australia. Homel fingered the marriage of deterrence to the cultural purposiveness of the norm-building of the Australian campaign. The introduction of random breath tests was preceded by a schools education campaign and media campaign that articulated the public purpose of saving lives of friends and loved ones by refusing to get into a car with a drunk driver, by offering to drive a person home from a pub or club after they consumed too much. The television advertisements sought to change Australian drinking norms by presenting viewers with respected icons of the screen who offered to drive a heavy-drinking friend home. The actor looked down the camera to say “Be a mate, drive him home”. Note that a cascade of self-efficacy is involved (you can make a difference to save the life of your mate) and a cascade of collective efficacy (a conscious strategy to make the helping behaviour of drinking groups more interventionist). We return to this theme. Deterrence was in the mix because one was being a mate not only to save the lives of friends but also to prevent their arrest under the new random breath testing laws. Braithwaite's reading (eg Ahmed et al., 2001) of this combined appeal has been that it made drinking and driving shameful in Australian youth culture. We baby boomers of Australia's heavy drinking culture were brought up to believe that drinking to excess on a night out and driving home with your mates was accepted. So we were amazed at the cultural transformation of our children who became more responsible than ourselves, finding it unacceptable to do that, and shocked that their parents had behaved in such an irresponsible way in their youth.

This illustrates how reframing crime as a cascade phenomenon opens up new ways of seeing what can work in crime prevention. It had to be accomplished against political mobilisation by liquor industry interests. Mercenary interests in drug abuse can be more profoundly reframed by a cascade lens on the history of illicit drug abuse. Since opium took off as a mass addiction for the first time in China in the second half of the nineteenth century, we have seen subsequent periods in the histories of many countries where opium or heroin became uncool among most young people. There were periods of impressive mobilisation against the opium trade in the West and India by the collective efficacy of women's movements networked with the Women's Christian Temperance Union, the Society for the Suppression of the Opium Trade and the Woman's Anti-Opium Urgency Committee (Braithwaite & Drahos, 2002). We saw that with the largest mass addiction event ever at the turn of the twentieth century in China. Neither opium nor heroin use is cool for most young Chinese today, nor was it by the middle decades of the twentieth century. Heroin, that had cascaded to increasingly widespread levels of addiction and death in many Western countries from the 1960s, had also become more uncool there well before the turn of the twenty-first century. Those with a purposive interest in addiction fought back, however, in some countries with reconfigured street marketing campaigns for heroin, but more commonly with new products of mass addiction such as crack cocaine that initially was more appealing to the young; then when its appeal faded, ice, and new generations of synthetic drugs were constituted as cool party drugs by their marketing.

MacCoun and Reuter (2001) surveyed the evidence on many drug policy experiments worldwide. One conclusion was that legalisation of illicit drugs does not have a great effect in worsening drug abuse, at least not on its own. Legalisation is mostly associated with sharp increases in drug abuse only when it moves on to aggressive commercialisation. So allowing people to grow their own pot of marijuana and smoke it privately does little to cascade marijuana use. The existence of networks of retail outlets and street pushers linked to substantial commercial producers, on the other hand, does cascade drug abuse. Purposive commercialisation of drugs of addiction has throughout history been necessary for genuine mass addiction events to break out, for cascades of vice to defeat reproduction of virtue (Braithwaite, 2005). There was no evidence of opium being a drug of mass addiction for thousands of years of Egyptian, Mediterranean and Indian opium eating. Then the British East India Company that was importing shiploads of Chinese goods searched for something to return in empty ships to China. The company stuck upon the idea of R&D on how to market opium as a drug of mass appeal in the massive Chinese market. It improved the delivery system from eating to the more appealing method of smoking opium combined with tobacco. It encouraged triads and other localised criminal entrepreneurs to establish opium dens across China, and later globally, spreading to locales like the West coast of the United States, Vancouver, New York, London, French port cities and Australia. When China pushed back to protect its young from this commercially-driven scourge by banning opium imports, the British state defended its opium interests by fighting China in two devastating opium wars that cost tens of thousands of lives. This was a classic case of a cascade of crime cascading to successive wars (1839–42; 1856–60), a theme in Braithwaite and D'Costa (2018).

The opium mass addiction cascade resulted in Big Pharma (particularly Bayer) subsequently innovating into more efficient injectable opium, heroin (Braithwaite & Drahos, 2002). Cocaine epidemics were likewise induced by pharmaceutical industry innovation into cocaine in cough medicines and other dangerous and ineffective patent medicines. These products were fraudulently promoted as safe and effective. Corporate food interests collaborated with the pharmaceutical industry to put cocaine into Coca Cola, among countless other mass consumption fads. These were commercially purposive cascades of mass addiction. They had been preceded historically by a much worse commercial dynamic of mass addiction to tobacco. It is important to note how these cascades of addiction were arrested during the 1920s through a combination of women's movement activism and incorporation of the 1912 Opium Convention into the Versailles Peace Agreement in 1919. This had the effect of driving Big Pharma out of the opiate, heroin and cocaine markets that they had created. It was not prohibition that worked, but the uncoupling of drug marketing from

corporate power and Big Pharma R & D that dampened drug markets. McCoy (1992, p. 268) found global opium production to fall from 41,600 tons in 1906 to 7,600 by 1934, to 1000 in 1970, rising again to 4,200 tons by 1989 with the commercialisation of organised crime marketing. Heroin exports likewise collapsed in the 1920s. Yet the commercialisation dynamic in cascades of drug addiction continues to innovate and bounce back. There is today's opioid epidemic driven by wilful Big Pharma recklessness in the marketing of the pain medication, oxycotin, for which there have been some corporate criminal convictions (Quinones, 2015; Humphreys, 2017).

American first nations peoples had been using tobacco in a way that was regulated by ritual, and moderation, for many centuries. When the French Ambassador to Portugal, Monsieur Nicot, first imported it from the New World to the French Court in 1556, the beginnings of a commercialisation dynamic saw smoking become fashionable in the west. As with cocaine, the commercialisation of tobacco was fraudulently promoted as good for health, to the point where boys at Eton in the seventeenth century were flogged if they failed to smoke for the sake of their health (Walker, 1980). As with the British East India Company, R & D to develop a more commercially appealing delivery system than opium eating – the R & D of The Imperial Tobacco Corporation, which became the biggest corporation in the British Empire, and Duke's American Tobacco Trust – developed the more appealing drug delivery of the compact cigarette. In harness with European tobacco corporations, Duke was also a pioneer of mass marketing campaigns to portray smoking as suave, first for men, then for women seen smoking their sleek cigarettes in sophisticated locales like Monte Carlo in Peter Stuyvesant ads. Elegant women attracted the attention of jet-setting males lighting their cigarette. Men were classically conditioned by campaigns like the Marlborough man to associate smoking with a self-image of rugged masculinity. Simple micro dynamics of classical conditioning were cascaded to scale by commercially purposive mobilisation of culture change.

The difference between emulation and modelling, according to Bandura (1986), is that modelling is not mere habitual mimicry, but emulation with transformative cognitive content. It is emulation that cascades meaning and social identity for those who participate in the modelling. Model mercenaries are commercial organisations with the entrepreneurial flair to cash in on these addictive substitutes for lost meaning and identity in modernity (Braithwaite, 1994). Whether the model mercenary is a British trading empire, Chinese triads or their western organised crime successors, the National Rifle Association, gun manufacturers, Big Pharma, big tobacco, or marketers of tax havens and tax shelters, cascades of commercial fraud are central to the dynamics of crime as a cascade problem. Finance scholars publishing in the top finance journals have shown greater interest in financial fraud as a cascade phenomenon than criminologists. They reveal fraud contagion effects at the corporate and geographical levels that are associated with the geographical concentration of political corruption (e.g., Parsons, Sulaeman, & Titman, 2018). Individual offending contagion effects are also demonstrated; for example, mergers that heighten differential association with fraudulent advisors from merging firms increase advisor misconduct by 37 per cent (Dimmock, Gerken, & Graham, 2018). All of this goes to the importance of a macrocriminology of how capitalism constitutes modern corporations with stupendous levels of collective efficacy for good or ill. Such stunning levels of corporate collective efficacy that they can cascade remakings of the world.

Inter-generational cascades of crime

This article seeks to provoke criminologists to see macrocriminological patterns differently through a cascade lens. So we shift from unfamiliar to utterly familiar ways of seeing among criminologists. Criminologists are taught, and generally accept, that children whose parents have serious criminal records are more likely to acquire criminal records themselves, and that children who have friends with criminal records are more likely to have criminal records themselves. More specifically, children and adults who are exposed to violence, by witnessing it or being subjected to it, are more likely subsequently to engage in violence themselves (Widom, 1989; Reitzel-Jaffe & Wolfe, 2001; Ehrensaft et al., 2003; Guerra, Huesmann, & Spindler, 2003; Kokko, Pulkkinen, Huesmann,

Dubow, & Boxer, 2009; Roberts, Gilman, Fitzmaurice, Decker, & Koenen, 2010; Sharkey, 2018). Theoretically, criminologists accept that Sutherland and Cressey's (1984) differential association theory and Akers and Jensen's (2011) social learning theory have explanatory value. A meta analysis by Pratt et al. (2010) supports this. Criminologists argue endlessly, however, about whether to interpret these associations in control theory or differential association theory terms. For the theoretical purposes of this article I want to interpolate a third theoretical possibility that this is a temporally and spatially concentrated cascading of criminality from one generation to the next and from child to child at specific locales. The cascade insight here reads as banal in the same way that critics of differential association theory say that theory is banal. What I argue in the concluding sections of this article, however, is that by reframing mainstream findings and theory through a cascade lens, through the mechanism of integrating micro self-efficacy with macro-cultural collective efficacy, more interesting insights might follow about how to cascade crime prevention.

Cascades of anomie and hopelessness

Braithwaite and D'Costa (2018) developed their analysis of violence as a cascade phenomenon from the Peacebuilding Compared study of how crime cascaded in conditions of armed conflict. War in particular was found to unsettle the normative order; citizens did not know what the rules of the game were nor who was in charge in a conflict zone (Braithwaite, Braithwaite, Cookson, & Dunn, 2010). This was anomie in the classic sense of absence of norms. Braithwaite and D'Costa (2018) concluded from their data that anomie cascades to war and war to anomie. The normative vacuum of anomie attracts the most tyrannous of forces, so domination also cascades. As ordinary citizens become more dominated by warlords and corrupt politicians in their pay, Braithwaite and D'Costa (2018) found that a sense of hopelessness and loss of identity tends to cascade. Political corruption decimates economies in combination with the ravages of war itself so that legitimate economic opportunities increasingly close off to the poor. The poor increasingly resort to illegitimate opportunities to eke out survival (Cloward & Ohlin, 1960). To summarise, not only anomie and hopelessness come to cascade, but also domination, criminalisation of states, loss of identity and collapse of legitimate opportunities. This is how it is possible in a short space of years for a country like Democratic Republic of Congo to tumble from being second only to South Africa in African industrialisation, and richer than almost all countries in future economic opportunities, to dead last in the world rankings of human development and GDP per capita (Braithwaite & D'Costa, 2018). Most sociological variables do not cascade, but Braithwaite and D'Costa argue that crime, war, anomie, domination and concentrated disadvantage are critical variables that do.

These dynamics of armed conflict are mirrored in less devastating ways in communities of societies at peace identified in the research programme of Robert Sampson and his co-authors. They found an association between crime and a collapse in collective efficacy, a more specific form of anomie concerning eroded helping norms and capacities to act together to solve problems in neighbourhoods. Where collective efficacy was low, crime was high. Pratt and Cullen's (2005) meta-analysis of over 200 studies of neighbourhood and crime rates found a mean effect of .30 for collective efficacy, results further reinforced by many subsequent studies from disparate continents, though not replicated in Latin America (Sampson, 2012). In communities within wealthy western societies decimated by deindustrialisation, this research showed how cascades of unemployment and concentrated disadvantage cascaded hopelessness, loss of identity and further cascades to lower levels of collective efficacy (Sampson, Raudenbush, & Earls, 1997; Morenoff, Sampson, & Raudenbush, 2001; Odgers et al., 2009; Hipp & Wo, 2015; but see Zhang, Messner, & Zhang, 2017). Again, here I just redescribe criminological findings into the dynamic language of cascades. Cascading collective efficacy prevents crime. Fagan, Wright, and Pinchevsky (2013) showed that collective efficacy also ameliorates the negative effects of exposure to violence on substance abuse and perpetration of violence. There is even some evidence that neighbourhood collective efficacy and rejection of norms of non-intervention may help with prevention of child abuse (McLeigh,

McDonnell, & Lavenda, 2018) and intimate partner violence through disclosure outside the home to third parties in high collective efficacy neighbourhoods (Browning, 2002; Dekeseredy, Schwartz, Alvi, & Tomaszewski, 2003; though Capaldi, Knoble, Shortt, and Kim (2012); Wright and Tillyer (2017) reviewed the evidence as mixed). Aubrey Jackson (2016) likewise found that neighbourhood collective efficacy reduces intimate partner violence, but only in neighbourhoods where women have at least a modicum of neighbourhood control over resources. This is a result that reinforces the case we make later for broadening the target beyond collective efficacy to the forms of social capital most relevant to the specificities of particular social problems. Jackson's result that social support from families was the strongest protective factor against intimate partner violence also goes to a somewhat broader kind of social capital.

A theme of *Cascades of Violence* (Braithwaite & D'Costa, 2018) is the way anomie and war allow money politics and business corruption to flourish with little restraint. This happens because of ways money power is connected to the military power needed for survival. Criminalised states and business cultures thus engendered create few opportunities for the poor, entrenching hopelessness. Poor people who understand these realities of their domination sometimes use it to excuse seizing whatever illegitimate opportunities they can in their wartime struggle to eke out family and personal survival. Indigenous peoples who have their lands stolen by invaders not only struggle to regain the sense of identity that tends to be so connected to their land; they may also struggle to find fault in stealing something back from the occupying majority. That loss of identity for dispossessed first nations peoples is also often transmitted inter-generationally. In various ways, cascade dynamics are therefore reinforced by tendencies for crime in the suites to cascade to crime in the streets (Braithwaite, 1991). Farrall and Karstedt's (2019) research shows how anomie in the middle class heartland of societies spreads middle class crime and anomie right across the social landscape.

War-crime-war cascades

Braithwaite and D'Costa (2018) offer a sweeping but only partially systematic study of micro and macro-dynamics from across one large region of the world on how armed conflict cascades to crime, crime cascades to further crime and further armed conflict, and how one war cascades to another. This is part of a more general phenomenon of one kind of violence cascading to other forms of violence (Institute of Medicine, & National Research Council, 2013). I will not retrace that South Asian evidence here. This discussion simply skates through the global quantitative evidence on these intertwined cascades of violence that are discussed in more detail in that book. Archer and Gartner (1984) were the first to demonstrate systematically an association between involvement of a nation in war and subsequent elevation of its homicide rate. Thorsten Sellin (1926) half a century earlier discussed less systematic data consistent with this conclusion, and before that Bongor (1916, p. 518) in 1905 diagnosed war as legitimating violence and neutralising norms of non-violence (see Gartner & Kennedy, 2018).

Ghobarah, Huth, and Russett (2003) confirmed the Archer and Gartner (1984) result cross-nationally for suicide as well as homicide increasing after war. They found that homicide also spikes after war in countries contiguous to the country that has experienced a civil war. Much of this domestic violence and self-violence cascade is perpetrated by the children of fighters as much as, or more than, by the fighters themselves. In addition to negative effects on sons, daughters of Australian Vietnam Veterans experienced sharply heightened risks of PTSD, depression, drug abuse and sexual assault (O'Toole, Dadds, Outram, & Catts, 2018). The extremely high rates of rape and sexual assault victimisation for daughters of Australian Vietnam veterans seems to hold a key to why the contagion effects are so much stronger for the daughters than the sons of Vietnam vets. For Israel and Palestine, there is a strong time-series association between spikes in conflict-related violence and spikes in homicide and other forms of violent crime (Landau & Pfeffermann, 1988; Landau, 1997, 2003; Huesmann et al., 2017). Clark et al. (2010) found an association between

exposure of Palestinians to conflict violence and domestic violence in their families, while Dubow et al. (2010), Landau et al. (2010) and Boxer et al. (2013) found an association between Israeli and Palestinian children's exposure to conflict violence and their subsequent PTSD symptoms and violence within their own community. Miguel, Saiegh, and Satyanath (2008) revealed an association between being a professional soccer player who experienced different degrees of exposure to civil war in their home country and receipt of yellow cards for aggressive behaviour on the field. The Institute of Medicine, & National Research Council (2013, p. 66) discussed the evidence for an association of African child soldiers' experience of violence with subsequent peacetime violence, though this effect was greatly ameliorated by postconflict experience of good reintegration, family support and economic opportunities. Monique Marks (2001, pp. 89, 133) found in South Africa that former male combatants experienced anomie, powerlessness and emasculation that became a "slippery slide into the underworld of crime". So Braithwaite and D'Costa (2018) argue that there is something of theoretically general import about violence going on in all of this.

We have learnt from Iraq (Boyle, 2014, Chapter 8) that violent death rates often go up after a war "ends". So can gender-based violence such as sorcery accusations (Forsyth, 2018b). These results have also been discovered in a number of African and other conflicts where killing (Duffield, 2001, p. 188), and even more so sexual and gender-based violence, can increase after a peace agreement is signed. This occurred after some Latin American civil wars – most notably, the continent's biggest recent wars in El Salvador and Guatemala, where a doubling of already extreme homicide rates at the end of the war delivered a higher death rate than during many of the peak years of civil war (Muggah & Krause, 2011, p. 180; Richani, 2007; Westendorf, 2015, p. 8).

Sambanis (2001, 2004) found that a country that has neighbouring states at war is more likely to experience a civil war itself, as did Gleditsch (2002, 2007), Salehyan and Gleditsch (2006) and Ward and Gleditsch (2002), but not Hegre, Ellingsen, Gates, and Gleditsch (2001). Alex Braithwaite (2016), Houweling and Siccama (1985) and Houweling & Siccama (1988) showed that interstate militarised conflicts cluster in both space and time to produce hotspots. Braithwaite and Li (2007) showed quantitatively that terrorist incidents cascade and cluster at and from geographical hotspots. Braithwaite and Johnson (2012) further found that, within one country (Iraq), IED attacks were clustered in space and time and these hotspots behaved in a manner similar to that observed in the spread of disease and crime. Terrorism is also exacerbated by hotspots in the sense that the exit of foreign fighters from hotspots is associated with heightened terrorism at home (Braithwaite & Chu, 2017). Similarly, the exit of state troops back to the homeland after foreign wars is associated with heightened homicide at home, much of it domestic violence. Wilkinson's (2004, pp. 44–45) Indian data show that Hindu–Muslim riots and casualties in them are predicted by the incidence of riots in that town in the previous five years. Finally, Chenoweth and Perkoski (2017) found that one of the best predictors of countries experiencing mass crimes against humanity was the experience of mass killings in their past, and Harff (2017) concluded that past genocide in a society increases the likelihood of cascade to a future genocide. In civil wars, the number of civilian killings per month is a good predictor of the number of civilian killings in future months (Hultman, Kathman & Shannon (2013, p. 887)).

Tambiah (1996, p. 214) interprets the Indian evidence as showing that "intermittent ethnic riots form a series, with antecedent riots influencing the unfolding of subsequent ones". This is also true of Braithwaite and D'Costa (2018) inferences about the cascading of non-violence. Here, global imaginaries of non-violence and freedom from tyranny are important alongside local and national ones. Braithwaite, Braithwaite, and Kucik (2015) showed statistically that non-violence, like violence, is a contagion phenomenon reproduced globally by feeding on itself. In the Arab Spring, however, the global cascade of freedom and non-violence was not the only global imaginary in play. In all the Middle Eastern and Arab uprisings, from the 1979 Iranian Revolution to Egypt and Syria in 2011, tyrannical jihadist imaginaries of a caliphate imposed by force were competing toe to toe with peaceloving pluralists for leadership of a revolution of non-violence.

All this evidence about the way that war and other forms of violence cascade reveals similar dynamics to the way Sampson (2012) shows in his landmark study of Chicago that both crime and the preventive power of collective efficacy cascade across both space (from neighbourhood to nearby neighbourhoods) and time (from decade to decade across a century of Chicago crime data).

Pondering how to cascade crime prevention

Respected actors model anti-crime norms

The Australian campaign to transform drinking and driving norms illustrates the importance of respected actors cascading crime prevention by modelling anti-crime norms. Feminist social movement politics led mothers to lead their sons to gradually cascade normative prevention of domestic violence. There have been many social movements that have cascaded crime prevention of macro-criminological importance. Since the publication of Rachel Carson's *Silent Spring*, the environment movement has advocated for environmental crime enforcement and encouraged at least some respected business leaders to model pro-environment norms that take their industry through new ceilings of excellence in environmental compliance systems (Braithwaite & Drahos, 2000). In earlier periods of history, the trade union movement began to secure similar accomplishments for crimes against workers. Earlier still (in the eighteenth century) churches constituted the collective efficacy of an anti-slavery movement that globalised the criminalisation of slavery and secured considerable emancipation of slaves (Braithwaite & Drahos, 2000).

Sharkey's (2018, p. 51) research on the great crime drop in the United States since 1992 shows the importance of a "wave of community mobilization that spread across U.S. cities in the early 1990s, after decades in which community organizations struggled for public support". Community-based organisational mobilisation against violence was complemented by the spread across the country of an ethic of responsibility to keep every member of a community safe. Sharkey, Torrats-Espinosa, and Takyar (2017) analysed longitudinal data (over 20 years, 264 cities) with an instrumental variable strategy to deal with endogeneity for the formation of community-based organisations to find that "every new organization formed to confront violence and build stronger neighborhoods led to about a 1 percent drop in violent crime and murder" (Sharkey, 2018, p. 53). This when in some of the largest US cities thousands of new organisations of this kind were formed in the 1990s. A 9 per cent reduction in the murder rate was associated with 10 additional organisations focusing on crime and community life in a city of 100,000 (Sharkey et al., 2017). While foundation funding and funding by multi-level governance for this kind of community-based mobilisation may be a common exogenous factor here, rallying around them at the neighbourhood level may be more of a cascade phenomenon, and the spread of this funding priority among foundations may also be an emulation phenomenon. As in the empirical literature on the cascading of jihadist imaginaries (Braithwaite & D'Costa, 2018), the cascading of the imaginary can be more resilient, resourceful, innovative and adaptive than the cascading of specific actions, such as specific forms of terrorism.

Collective efficacy to cascade inkspots of civility that connect up

Peacekeeping operations often confront a seemingly impossible enforcement swamping challenge of anomie and violence. One way they have risen to this challenge to become surprisingly effective in reducing post-conflict violence (Braithwaite & D'Costa, 2018) has been to start wherever it is feasible to start by creating an inkspot of security and civility somewhere, then somewhere else. Once this process of intervention passes a tipping point, a self-sustaining cascade of peace and civility spreads and the inkspots connect up, eventually merging into one another to pacify a society more holistically with norms of civility (Braithwaite & D'Costa, 2018). It is not exactly the reverse of a hot spot strategy in that the priorities for the first ink-spots of pacification tend to be the most

strategic sites for peacebuilding – the areas around the parliament, the courts, banks, hospitals, and UN headquarters itself. The hottest hot spots of war tend to enter late into the cascade of pacification, though hot spots for atrocities against civilians behind the front lines are often deployment priorities to maximise protection of civilian lives. One dynamic that underpins this cascade is that neighbouring communities look across to the new peace zones and envy the greater progress they have made in renewal, trade and development, peacefully working together to rebuild schools and health centres. They decide this is what they want too. Their neighbouring inkspot gives them AMP (Awareness of what they need to do to build local peace; Motivation to do it; and shows them a Pathway to become the next inkspot of civility) (Honig et al., 2015). The Peacebuilding Compared team has documented this conscious inkspot strategy of peace operations in Timor-Leste (Braithwaite, Charlesworth, & Soares, 2012), Bougainville (Braithwaite, Charlesworth, Reddy, & Dunn, 2010) and Democratic Republic of Congo (Braithwaite & D’Costa, 2018). Local actors may have the awareness and motivation needed to build a local peace in their neighbourhood, but they will not mobilise their collective efficacy until peacekeepers secure a safe pathway to manifest that collective efficacy.

It is not just that, notwithstanding many case-specific failures, UN peacekeepers are statistically highly cost-effective in reducing the incidence of war (Braithwaite & D’Costa, 2018). It is also that UN police and military peacekeepers are both more potent in crime prevention than western domestic police. In the multivariate and matching analysis of Hultman et al. (2013) across all African armed conflicts between 1991 and 2008, movement from zero to just 200 UN police in a peace operation, conditioned by controls on other variables, was associated with a reduction in the expected number of civilian killings from 96 per month to 14. Given that this is a per-month estimate, and the average duration of deployments is 65 months, small contingents of police seem to save very large numbers of lives. One reason for this potency might be that hot spots of civilian murder during civil wars tend to be extremely hot and comparatively small in number at any one point of time, even though they may be large in number across the duration of the war as front-lines move across wide swathes of space.

Hot-spot policing policies in Western societies can build out their policy imagination for how to cascade hot-spot successes. We might be optimistic that this could work with similar success to peacekeeping because naturalistically, as discussed above, there are positive spillovers of hot-spot policing successes in reducing crime at neighbouring locales. What seems required of the policy analysis here is to connect up several separate policy ideas. One is to continue to deploy scarce police resources to patrol high crime hot spots where they can make the biggest difference. Then that might be connected to the cascades literature and the collective efficacy literature, partly on the simple basis that police patrol in high crime areas can give residents the confidence to walk the streets in order to build collective efficacy (Kochel & Weisburd, 2019). Collective efficacy scholars rightly say that that citizens simply being on the street is not enough; dense street networks are not enough until the networks are mobilised to be active with preventive interventions. Citizens feeling safe to venture onto the streets of a hot spot can be interpreted as a necessary but not a sufficient condition for crime prevention.

Neighbourhood disorder that hot spot policing can dampen also threatens other facets of social capital such as generalised trust (Intravia, Stewart, Warren, & Wolff, 2016). It is not necessarily the police who will be effective in building collective efficacy, though it is a possibility (Weisburd, Davis, & Gill, 2015) for which there is some evidence of success (Weisburd, Groff, & Yang, 2012; Kochel, Burruss, & Weisburd, 2015). Support for groups like “Moms UNITE for Health” with a collective efficacy philosophy of offering help in walking groups around the neighbourhood with practical objectives like health education messaging could be a more participatory and practical approach (Dlugonski, Das, & Martin, 2015), as can simple sociality like shared supervision of children and attractive conditions of access to shared community gardens (Teig et al., 2009; Comstock et al., 2010). Shur-Ofry and Malcai (2019) showed that community gardens are an institution for collective action (Ostrom, 1990) that scales from micro initiative to macro transformation of

a city as a social contagion without central regulatory direction. Quantitatively they show that new gardens increase the increase in the spread of gardens, that the diffusion of gardens displays a fractal pattern,² and clustering. These three attributes are cascade features in self-organised complex systems. While gardens expand without top-down intervention, Shur-Ofry and Malcai suggest that municipalities can be bridging institutions that nudge and trigger self-amplifying processes. Sampson (2012, p. 350) likewise believes that non-profit organisations can weave a web of mundane routine activities that can lubricate collective life in a way that is not planned as social capital formation in pursuit of some public good.

First, there is an empirical question. After hot-spot policing succeeds in reducing local crime, we must understand if and how collective efficacy grows naturally? Are there local initiatives or policy settings that help it grow faster? With that evidence in hand, criminology could be ready to change policy settings, not only to cascade hot-spot policing, but to cascade capacity building outwards for collective efficacy in its wake, and to transform the hot-spot into an expanding ink-spot that will eventually connect up to other expanding ink-spots, ultimately to reduce crime across a whole city or society. Put another way, it becomes a good investment to intervene to accelerate small cascades of civility that occur naturally. The hope is to nudge cascades past the point where they cross tipping points beyond which collective efficacy, security and civility continue to cascade to cover an entire society. Rautkis, McCarthy, Krackhardt, and Cahalane (2010) show that a good predictor of adoption of restorative child protection programs is whether such programs exist in neighbouring communities. Restorative advocates such as Gale Burford use this study to argue that the best way to scale up restorative programs is not to disperse pilots all over a country but to invest in quality programs in adjacent neighbourhoods so they might be supportive nodes for each other to diffuse inkspots of innovation out from a supportive cluster.

COMSTAT accountabilities of police leaders currently fail to nurture a cascade policy imagination. Police leaders are evaluated and rewarded in COMSTAT in terms of how well they perform in reducing crime in their own patch, so much so that when they succeed in cascading their success to another precinct, they may help that area's patrol leader to promotion ahead of them! Combined with the incentives COMSTAT creates for non-reporting of crimes in one's own precinct, the potential for cascading benefits outside that precinct makes a case for more nuanced and less statistical peer review of the performance of police leaders in how they leverage hot-spot policing. They need to pile in support for their peers who are having success on the peer's patch, success that is currently eluding them. The hope and the collective belief is that inkspots of success elsewhere will ultimately be encouraged to spread to their own patch and to every patch.

Of course linking these three ideas – hot-spot policing, collective efficacy and cascades – is only illustrative of a more general cascade policy imagination. “Focused deterrence” is another policy idea shown to work well on focused places and problems, such as gun crime by gangs in a particular city (Braga, Weisburd, & Turchan, 2018). Once success is secured in persuading a gang that operates in one area to desist from gun crime, what are the new policy levers to cascade this success to other forms of crime by that gang, to other areas with other gang and non-gang participants in drug markets? Restorative and responsive policing has a “raise-the-bar” strategy as one possible answer to this question (Braithwaite, 2018).

This “raise-the-bar” strategy has also been applied to reversing stampedes into tax havens and other financially engineered shelters (Braithwaite, 2005), causing cautious corporations to cascade out of shelters. While the idea of collective efficacy comes from sociologists on the streets of Chicago, we saw it on the streets of the City of London and on Wall Street a century ago at times when Baron Rothschild or JP Morgan would act to prevent a run on a bank by marching to the front of a frenzied queue of bank customers waiting to make a withdrawal, ostentatiously depositing a pile of Rothschild or JP Morgan cash into that teetering institution (Braithwaite & Drahos, 2000). This indeed was social cohesion of the financial street “combined with their willingness to intervene on behalf of the common good” (Sampson et al., 1997, p. 918). Ethnographies of Wall Street by experienced financial journalists, such as *Barbarians at the Gate* (Burrough & Helyar, 2010),

aimed to reveal the ruthless character of the street. Yet they also revealed certain social fabrics of collective efficacy that can be cascaded to save capitalism. Wall Street and the City of London are financial communities with communal qualities frequently affirmed by rituals of apology, forgiveness, reconciliation, and repair, even if rarely by fully repairing the harm done. Far from Wall Street, in Yangon, in my Peacebuilding Compared research, I was intrigued to see the Milken Foundation providing helpful assistance on how Myanmar's fragile financial system might avoid a systemic crisis. This was redemptive work of ex-prisoner Michael Milken, the former genius of Wall Street criminality portrayed by the Michael Douglas "greed is good" character in the film *Wall Street*. Shades of the stellar contribution of Watergate criminal Charles Colson to the restorative justice movement through establishing Prison Fellowship International after his release from prison. Crime prevention can go corporate with this kind of Wall Street collective efficacy, conceiving the deepest harms in society as no longer matters of individual action but of corporate action. Corporate compliance systems and cultures of corporate social responsibility sometimes do cascade social licences of integrity and justice. It is a path to crime prevention rarely discussed as an option for a better future.

Cascading redemption; cascading self-efficacy

How might crime prevention policy respond to the phenomenon that crimes of parents cascade to crime by their children; crimes of children cascade to crime by their friends? Reintegrative shaming theory (as revised in Ahmed et al., 2001) offers one possible approach. It picks up the insight from Albert Cohen (1955) that if the justice system stigmatises a family, a peer group, a gang, a school, an ethnic or religious group, a corporation in corporate crime enforcement, and one might add a jihadist group, this fosters criminal subculture formation. Cohen called this dynamic "reaction formation". Stigmatisation motivates human beings to reject their rejectors. Once this subcultural reaction formation sets in, it cascades because a law-abiding value promoted by my rejectors will be rejected and reversed. Doing so is a subculturally reinforced way of rejecting my rejectors. Hence, for Cohen's delinquent boys, because respect for the property of others was promoted by a school culture that stigmatised them, they valued contempt for property; their subculture reversed impulse control to free expression of impulses; they reversed the control of violence valued by the school to valorising toughness in the use of violence within their delinquent subculture. Cohen might suggest today that cascades of mass shootings in schools can be understood as young people being rejected by a school that rejects violence, and then rejecting the values of their rejectors through turning mass violence against the school community.

A remedy, according to reintegrative shaming theory, is schools that suppress stigmatisation by hating violence and loving perpetrators of violence. This sounds vague and platitudinous. Yet the social movement for restorative justice prioritises schools over the justice system and has worked through detailed and practical reintegrative programs with which there is now vast experience, and some encouraging evidence of effectiveness (Hopkins, 2003; Morrison, 2007; Augustine et al., 2018). McCold's (2008) study of 1636 children with behaviour problems sent to a restorative school program found a 58 per cent reduction of reoffending for those who completed the program in the 6 months after program completion. This impact reduced after two years, though the percentage reduction in offending was greatest for children with the highest risk factors for offending.

Shadd Maruna's (2001) research emphasises the importance of redemption scripts in restorative dynamics and desistance from crime more broadly. Serious offenders who made good had to find a new way of making sense of their lives, a theme also taken up by Giordano, Cernkovich, and Rudolph (2002). Desisters restoried their life histories. They defined a new ethical identity for themselves that meant that they were able to look back at their former criminal selves and believe that they were "not like that any more" (Maruna, 2001, p. 7). They found appeal in the Jesse Jackson ethos: "You are not responsible for being down, but you are responsible for getting up" (Maruna, 2001, p. 148). Maruna's persistent reoffender sample, in contrast, were locked into "condemnation

scripts”; they saw themselves as irrevocably condemned to their criminal self-story. Maruna’s desisters had restoried themselves to believe that their formerly criminal self “was not me”. The self that did it was in William James’ terms, not the I (the self-as-subject, who acts), nor the Me (the self-as-object, that is acted upon), but what Petrunik and Shearing (1988) called the It, an alien source of action (Maruna, 2001, p. 93). Restorative justice might therefore help wrongdoers to write their It out of the story of their “true” ethical identity. Maruna (2001, p. 13) concluded that communal processes he called “redemption rituals” were important in this sense-making because desisting offenders often narrated the way their deviance had been decertified by important others such as family members who said Johnny was now his old self. Zehr (2000, p. 10) makes the point that whether we have victimised or been victimised, we need social support in the journey “to re-narrate our stories so that they are no longer just about shame and humiliation but ultimately about dignity and triumph.” This is therefore a self-efficacy effect that complements at an individual level the collective efficacy effect demonstrated by Sampson et al. (1997).

Another feature of Maruna’s (2001) “generative scripts” that characterised desisters from crime was a desire of desisters to help others as part of defining a renewed positive identity for themselves. LeBel, Richie, and Maruna (2015) assessed more recent progress with implementing this “wounded healer” strategy. An impressive body of evaluations is yet to accumulate, though there is some encouraging research (Perrin, Blagden, Winder, & Dillon, 2017). Heidemann, Cederbaum, Martinez, and LeBel’s (2016) mixed methods study of desistant wounded healers among formerly incarcerated women is one encouraging study. Another by Lee et al. (2017) of drug offenders found that two “spiritual virtues” – service to others and the spiritual experience of love – contributed to reduced recidivism and improved “character development” through greater humility. Defiance, in contrast, “was associated with higher incarceration, while the combination of service and love predicted lower incarceration and mediated the impact of defiance” (Lee et al., 2017, p. 161). The Lee et al. (2017, p. 168) results were interpreted as support for the claim of the co-founder of Alcoholics Anonymous that AA’s 12-step process boiled down to two core principles: love and service. The twelfth step of AA recovery explicitly involves helping to heal the suffering of fellow alcoholics. The evidence from systematic reviews for effectiveness of the AA 12 steps as a package is encouraging in accomplishing abstinence (Kaskutas, 2009; Humphreys, Blodgett, & Wagner, 2014; Kelly, 2017). While this is contested, the lesson we draw from AA is not so much about its evidence base as about its strategy for scaling up collective efficacy from self-efficacy.

White (2014) expresses it as “recovery is contagious and recovery is spread by recovery carriers”, a multiplicative networked dynamic of “I story” to “We story” (White, 2015). The cascade point here is that if each healed addicted person did seek to pass on their healing to help a number of others, if each recovering criminal offender did imbibe self-efficacy and join in the collective efficacy to seek to help a number of troubled youth in the neighbourhood where their history gives them street credibility, where they will not be rejected as rejectors, then there is the prospect of a multiplicative cascade of prevention. This only becomes true if wounded healers mobilise widely, and if the evidence continues to be encouraging that they, and those they help, experience reduced offending. To date, interest of policymakers in mobilising wounded healer cascades of prevention has been modest, so we must await further evidence that such a virtuous cascade could scale up. AA has institutionalised the scaling up of wounded healing with great flare in tackling alcoholism. 106,000 AA groups exist in 150 countries and countless hybrids of AA with distinctive brands have also proliferated (White & Kurtz, 2008). AA can be conceived as a massively scaled up NGO that cascades collective efficacy overwhelmingly in the hands of volunteers inspired by its “help others” 12th step to recovery. Wounded healers do not have to be wounded by addiction or crime to be interpreted as wounded healers by their community. Sharkey’s (2018, p. 174–79) discussion of Nyoongar night patrols in Australia valorises the preventive work of Aboriginal people wounded by colonial dispossession and stripping of identity. Identity is retrieved in part through a Nyoongar approach, relying on embedded cultural authority, and walking the streets to prevent and de-escalate community conflicts before they escalate to violence.

The hypothesis advanced here is that both self-efficacy and collective efficacy can be helped to cascade through well-known strategies. The contours of these strategies are conceptualised in the recovery capital literature (Best & Laudet, 2010; Best, McKitterick, Beswick, & Savic, 2015; Best, 2017) that defines CHIME (Connectedness, Hope, Identity, Meaning and Empowerment) as an intertwined cluster of social relationships and social beliefs that constitute “recovery capital”. Leamy, Bird, Le Boutillier, Williams, and Slade (2011) show the effectiveness of CHIME for recovery from addictions and criminal offending in a meta-analysis. Recovery capital (and CHIME) are hopeful candidates for cascade effects because they have a key characteristic that they share with collective efficacy, social capital, human capital, and recovery capital. Unlike financial capital, recovery capital, social capital and human capital are not depleted through use. When you spend your money in the bank, you deplete your capital. When you trust someone, you do not deplete trust; trust tends to be reciprocated and this engenders virtuous circles of trust building. When you manifest collective efficacy by helping someone, you do not reduce help because helping behaviour is contagious. People do pass on acts of kindness (Tsvetkova & Macy, 2014); experimentally, cooperation reproduces itself (Fowler & Christakis, 2010). In the same way, human capital is not depleted through use. When you *use* new human capital, social capital or recovery capital skills, this sharpens them and nourishes their collective future growth. CHIME is not depleted through use; it is an investment that grows on its dividends as we learn how to institutionalise cascading the CHIMEing of one another’s bells.

Institutionalised contagions of collective efficacy

Of course there are more deeply institutionalised sites than AA programs that can cascade collective efficacy; these are called families, schools and primary work groups in organisations. The best families, schools and workplaces do encourage their members to pass on acts of kindness, to pay forward trust and collective efficacy, to help others to recover from problems from which they themselves have recovered, to be wounded healers who multiply their own healing especially as they grow into adult family members and organisational leaders, and to intervene when they see an opportunity to prevent predation. There is much that we can do to further educate, motivate and show pathways to these benefits for people inside these institutions. A macrosociological imagination requires that we ask if these institutions might provide the most effective ways to cascade collective efficacy because they are more institutionally embedded primary groups than neighbourhood groups. This is not to cast doubt on the importance of place in inscribing disadvantage and anomie so convincingly revealed by Sampson (2012), by Shaw and McKay (1942) and many urban ecologists. Yet families, schools and workgroups might provide more fertile soil to spread social roots of collective efficacy across geographical places than places themselves because of their more institutionalised character and the multiplex levers they can mobilise. Community that is liberated from place, indeed that connects up communities across very long distances, is also important in the internet age. The rising creative class that Richard Florida (2014) contends is the driving engine for twenty-first century growth is concentrated through sites in cyberspace as well as at physical locales like Silicon Valley and Manhattan. The other side of the coin is that digital divides concentrate disadvantage just as do neighbourhood and international divides. The internet can connect the collective efficacy of grandparents as well as parents into school communities to help with children’s journeys of learning; it can connect up families increasingly separated by geographical mobility. Combined with solar panels in the remotest villages of rural Africa currently without electricity, the internet can help connect the worst nodes of concentrated disadvantage on the planet to educational opportunities.

Australian work in the social capital literature shows that trust in government and voluntary taxpaying mostly spreads out from primary group trust in families and work groups, moreso than from civil society out (as in the influential American theories of Putnam (2000) and Skocpol (2013)) (Job & Reinhart, 2003). The dynamics emphasised by Putnam and Skocpol are shown in this

empirical work to be important in Australia, but less important than the rippling out of social capital from primary groups. Primary group social capital (which includes collective efficacy, but is a more general concept than collective efficacy) can be a platform for cascading collective efficacy, and cascading other benefits of social capital such as improved health and education outcomes, that in turn also help to reduce crime, with the crime reduction then further improving health, education and employment outcomes because exposure to horrific violence can derail learning and wellbeing for years (Sharkey, 2018: pp. 93–4, 111).

We have argued that policing policy reforms like reconfigured hot spot policing might have the most profound impacts when they cascade macrosociological effects and when they pacify dangerous spaces to the point where citizens are enabled to return to the streets to spread collective efficacy. Yet the healthy effect sizes of strengthened collective efficacy on improving attainment of objectives by organisations (such as the Stajkovic, Lee, and Nyberg (2009) and Gully, Incalcaterra, Joshi, and Beaubien (2002) meta-analysis effects of .35 and .41 respectively), and the strong effects with attaining educational outcomes and reducing educational disadvantage in schools (Eells, 2011; Leithwood & Sun, 2012), open up the suggestion that places are not necessarily the only or the most fertile sites for planting roots of self-efficacy and collective efficacy. Then there is Lackey's (2016) result that neighbourhood collective efficacy in Ohio *rural* neighbourhoods had a strongly significant effect on self-reported delinquency, but school collective efficacy had an even stronger coefficient when added to Lackey's model and caused the neighbourhood collective efficacy effect to fall below significance.

The collective belief of teachers that by working together they can deliver better educational outcomes may even be the strongest school-level predictor of educational outcomes, ahead of predictors that most of us might have expected to be stronger such as socio-economic status, parental involvement, prior achievement, motivation and teacher-student relationships (Hattie, 2009, 2012; Donohoo, 2017). Collective efficacy of students encouraging one another not to give up on solving mathematical problems can also have strong impacts in improving outcomes for difficult skills (Katz & Stupel, 2015). Goddard, Skia, and Salloum (2017) likewise found that teacher collective efficacy strongly improved student mathematics and reduced the mathematics achievement gaps suffered by African American students by 50 per cent. Bryk and Schneider's (2002) more Putnamesque study of social capital in schools showed that schools with high levels of "relational trust" delivered reduced truancy and improved learning outcomes. Finally, Tian et al. (2017) in a wonderful Chinese study showed that classroom collective efficacy helped students to become more active and effective learners, better at self-regulating their self-efficacy. The combination of high classroom collective efficacy *and small class sizes* delivered collaborative, relational learning that simultaneously produced improved learning and reduced delinquency and aggression ("externalizing behavior") (Tian et al., 2017).

Therefore, the best solutions to crime problems may not be found in either place or criminal justice system variables. The best paths to crime prevention may maximise benefit-cost ratios because they cascade broader forms of social capital than collective efficacy; these broader social capital cascades help explain collective efficacy and help solve other deep social problems through collective efficacy impacts on many of the problems that concentrate disadvantage: like health disadvantage (Ahern & Galea, 2011; Gilbert, Quinn, Goodman, Butler, & Wallace, 2013), suicide (Maimon, Browning, & Brooks-Gunn, 2010), obesity (Cohen, Finch, Bower, & Sastry, 2006) and even environmental collapse (Jugert et al., 2016; Thaker, Maibach, Leiserowitz, Zhao, & Howe, 2016). People need to believe in their collective capability to make a difference to the environment before they will make a difference. Different facets of social capital from the collective efficacy facets of social capital may be more effective in delivering other public goods like mental health that in turn contribute to crime prevention. Hardyns, Vyncke, De Broeck, Pauwels, and Willems (2016) found that social support, whether from families, schools, workplaces, neighbourhoods or beyond, was the facet of social capital most important to sustaining mental health, while neighbourhood levels of social trust, disorder, and collective efficacy had negligible effects.

A broad macrosociological policy imagination for expanding social capital might also have wider arrays of benefits than collective efficacy. Collective efficacy has the strength of being a form of social capital attuned to crime prevention. Yet trust, reciprocity, collaborative skills, social support skills and hope might all be forms of social capital that support each other and support collective efficacy. On the other hand, however effective are families, schools, work groups and other primary groups as seed beds of social capital, of self-efficacy and collective-efficacy, if citizens dare not venture onto the streets to manifest collective efficacy at dangerous hot spots, then that macrosociological potential can be cut off. Policing at places might be important in this way, even though places may be relationally thinner sites for building collective efficacy than primary institutions that enjoy thicker institutional fabrics for relationality. When cascades of collective efficacy enabled by hot-spot policing complement more holistic, multidimensional strategies for cascading social capital and tackling concentrated disadvantage, then micro policing policies might connect to a macro strategy that not only reduces crime, but that also improves health outcomes, homelessness, educational outcomes, employment outcomes, workforce productivity and an array of other forms of social wellbeing. If all this is true, then narrowly micro criminal justice policies are never likely to be as attractive in cost-benefit terms as macrosocial ideas that are liberated from policy silos like the criminology of place.

A puzzle for criminology is why collective efficacy is such a central variable in the criminology of place, but less so in lifecourse criminology, especially when Robert Sampson (2012) himself has always emphasised these links and is a towering intellect of both fields. Arguably the more foundational institutional building of cultural habits of collective efficacy in families and schools is more important than building collective efficacy in work groups. Yet in Western economies it has been business that has seen the biggest macrocultural shifts towards collective efficacy. This started well before World War II with Elton Mayo's relational school of organisational studies, with its critiques of machine bureaucracies and Fordist production lines. The transformation greatly accelerated in the 1970s, and more strongly in the 1980s, with American business soul-searching that Japanese business productivity was outperforming US corporations. "Japanese quality circles" delivered collective efficacy for improving quality; they were then widely emulated in the West. Half a century ago US corporations applied lessons drawn from Japan and from the successes of autonomous work groups that broke out of the top-down discipline of Fordist production systems in Swedish companies like Volvo for excellence in sophisticated engineering. Business energised transformative leadership for change, as was powerfully demonstrated by Jung and Sosik's (2002) finding from 47 Korean work-groups that transformational leadership could empower members, build cohesiveness and collective efficacy, and thereby improve work group effectiveness in achieving business goals.

Arguably, the United States better than any society translated these lessons to the challenge of collective efficacy for innovation in the new information economy. The evidence is strong from US business that "transformational leadership" works when it persuades semi-autonomous work groups that they have the ability to work together, the collective efficacy to discover, innovate and learn. Meta analyses conclude that training programs to improve teamwork and helping behaviour do improve teamwork and improve team performance (McEwan, Ruissen, Eys, Zumbo, & Beauchamp, 2017). Western schools and families have not shifted to transformational leadership for collective efficacy to the same degree. Paradoxically, they remain more rooted in individualistic philosophies than business institutions. Schools and families tend to be more focused on building the self-efficacy of individual children as the path to their success in life. "The child can do it" remains the more important trope than the idea that "the classroom can do it" or "the family can do it". Only in explicitly collective activities such as music performances by choirs or bands, or team performances in sport, do most schools fully emphasise collective efficacy. Professional development for teachers tends to be individual professional development rather than professional development that builds the collective efficacy of teaching teams.

Restorative justice in schools and families is one movement that seeks to transform this. Restorative group decision-making in nuclear and extended families and in school classrooms often starts with building out from strengths by asking a family to list their greatest strengths as a family, a classroom to list their greatest strengths as a class. The facilitator then writes them up for the group on a flipchart. Then a family group is enabled to continually return to the theme that instead of focusing on their children's many problems, these problems might begin to fall away if they will only believe in, and build out from, the strengths their family supports can deliver.

Hence, the hypothesis of this section is that visionary policy shifts that drive all major institutions in the society to educate themselves in the importance of social capital formation will make it easier for hot-spot policing to make a big difference in preventing crime through applying lessons from the criminology of place. These will also be policies with much higher benefit-cost ratios because they might also be relevant to improved educational outcomes, improved employment, more rewarding work lives, heightened productivity, collective efficacy in transforming environmental impacts (Muller, Sampson, & Winter, 2018), improved health and reduced alcoholism, smoking, obesity and suicide. The macro policy imagination involves holistically strengthening both the recovery capital that enables rehabilitation of offenders through CHIME and the social capital that prevents crime before it occurs. It is about building social capital in the intermediate civil society institutions such as bowling leagues, choirs, and clubs that so impressed Putnam (2000) and in the encompassing civil society organisations that once had millions of members that so impressed Skocpol (2013), such as the Womens' Christian Temperance Union and lodges with millions of members. But most importantly, it means holistically building social capital in the primary groups of the institutions with the deepest cultural roots: families, schools and work groups in business and government. And yes neighbourhoods as well.

Kirk (2009) made the important contribution of showing that school-based, family-based and neighbourhood-based collective efficacy when combined substantially reduce juvenile arrest and student suspensions from school. Simons, Simons, Burt, Brody, and Cutrona (2005) delivered the equally profound contribution of showing that neighbourhood collective efficacy encouraged authoritative parenting among African American caregivers. Authoritative parenting is warm and supportive but insists that boundaries are not crossed; it is distinguished from authoritarian and laissez-faire parenting. The evidence has long been overwhelming that authoritative parenting is a key to crime prevention (Wright & Cullen, 2001). So it is a profound inspiration for a holistic vision of cascading social capital formation to understand the Simons et al. (2005) finding that the collective efficacy of a community amplifies the benefits of authoritative parenting for delinquency reduction. The result is profound because the effect sizes of authoritative parenting on delinquency reduction are generally stronger than those of collective efficacy, even though the latter also tend to be strong (e.g., Simons et al., 2005, p. 1019). All of this is just another way of describing how a macrocriminological imagination shifts the focus away from criminological silos and towards cultural and structural transformation that is multidimensional in its cascading of complex, often mutually reinforcing, processes of social capital formation.

Social capital or collective efficacy?

The more transformative shifts towards collective efficacy of business compared to social institutions also illustrates the dilemma that caused Robert Sampson to sharpen the focus of social capital onto his concept of collective efficacy. Yes, US business has done brilliantly in unleashing the collective efficacy of its information age technology corporations to solve so many previously unsolvable challenges. Yet the collective efficacy of an organisation like Facebook has also been mobilised to abuse the privacy rights of its customers and to collaborate with authoritarian security services of many states to threaten freedom. More broadly, all forms of corporate malfeasance and crime are difficult to hold together, as revealed by another Chicago School empirical literature on how hard it is to hold business cartels together; criminalised cartel discipline requires highly

developed forms of collective efficacy. At the same time, the work of my own research group shows that the managerial self-efficacy of leaders, that is grounded in the collective efficacy of their organisation, is central to efforts by organisations to control corporate crime (Jenkins, 1994; Braithwaite, Makkai, & Braithwaite, 2007). So we should applaud the mention by Sampson (2012: footnote 21, Chapter 15) of the hypothesis that the crimes of Wall Street during the Global Financial Crisis might have been prevented by a combination of transcending legal cynicism towards financial laws and building collective efficacy to regulate and self-regulate in respect of those laws.

Sampson is acutely tuned in to this kind of dilemma. He worries that strong communities with strong social capital sometimes in the urban ecologies he studied were white communities that mobilised social capital to exclude black entry to their neighbourhoods, in the worst cases even by violence or firebombing their new homes. Sampson is alert to the work of William Foote Whyte (1943) and Suttles (1968) on the *Social Order of the Slum* that shows that criminogenic organisations such as youth gangs often mobilise their collective efficacy to prevent “young hot heads” from needlessly bringing heat on the gang. Street leaders regulate the criminal adventurism of younger gang members. We see the dilemma sharply in the public health literature: in communities where norms are tolerant of smoking, collective efficacy increases smoking; in communities where norms are intolerant of smoking, collective efficacy reduces smoking (Ahern, Galea, Hubbard, & Syme, 2009). Hence, when policymakers disperse slums they disperse both some positive and some negative collective efficacy dynamics (Skogan, 1990).

This is one reason why Sampson’s theoretical move is to specify his definition of collective efficacy to a focus on social cohesion combined with willingness to intervene on behalf of the common good (Sampson et al., 1997, p. 918). His measures follow this specification with its biggest cluster of 4 items focused on helping behaviour oriented to youth crime prevention. These are expectations that neighbours would take action if: (1) children skip school and hang out on a street corner; (2) children spray-paint graffiti; (3) children show disrespect to an adult; (4) fight breaks out in front of house. There are a number of other items that are about the social cohesion part of collective efficacy in the composite concept. These include items with a classic social capital character in the Putnam sense, such as: “People in this neighborhood can be trusted”; “People around here are willing to help their neighbors.”; “This is a close-knit neighborhood” (Sampson, 2012). All this in turn is highly correlated with the density of civil society associations. With such a composite index we can never rule out the interpretation that the impact of the “willingness to intervene to prevent” items are proxies for the causal effects of more general social capital and social cohesion variables (as in Bursik, 1999; Lederman, Loayza, & Menéndez, 2002) or vice versa.

The extant literature never puts Sampson’s conception of collective efficacy in competition with Bandura’s. Bandura’s conception is both more general and more specific than Sampson’s. On the one hand, Bandura’s collective efficacy is more general in that it is not narrowed to willingness to intervene in ways relevant to crime prevention. Bandura’s collective efficacy goes more generally to the belief of groups that they can act together with effectiveness to solve a problem conjointly, be it crime, or helping children to learn, or hurting people who are whistleblowers against organisational malfeasance. Bandura’s collective belief within disadvantaged school communities that all students can be helped to grow, learn and flourish may be more relevant to defeating disadvantage there than Sampson’s collective efficacy as willingness to intervene to prevent bad behaviour. On the other hand, Bandura’s collective efficacy is more narrowly a social cognitive belief of groups; it does not combine cognitions shared in groups with preventive actions taken by groups (or expectations of preventive action as a proxy for preventive action) in the way Sampson’s conception does. The strength of the Sampson conception is its focus on ties strongly tethered to collective actions, contrasted with the wide range of other forms of ties that are weakly tethered to action that prevents crime.

We might say that Sampson’s move is helpful in specifying that the activities of the Ku Klux Klan or the National Rifle Association are not collective efficacy. On the other hand, there can be no guarantee that in a world in which the collectivism of the social cohesion facet of his measure is high

that the collective efforts of these groups will not also be structurally strengthened. Alongside of the efforts of community groups that do by Sampson's lights promote the public good, the collective capabilities of the Ku Klux Klan and the NRA might also be strengthened. It may be that collective efficacy is vital to hold drug cartels and the communities that tolerate them together and that paramilitary cartels build community and regulate low level criminality as part of their strategy for enabling higher-level criminality, or violence may be exogenous to the formation of gangs for protection. These may be reasons for Cerda and Morenoff's (2009) finding the counter-theoretical result in Medellin, Colombia that neighbourhoods high in collective efficacy have higher concentrated disadvantage and higher rates of homicide and perceived violence.

We see this dilemma in systematic studies at the cross-national level of analysis that Sampson does not consider. Societies whose citizens score high on collectivism in their social values have higher levels of violence (Karstedt, 2006, 2015). Karstedt is not measuring collective efficacy here but a collectivism scale that has been replicated as stable. This can be interpreted as the risk that highly collectivist societies can be more prone to stigmatise outgroups (and more dominated by an honour culture for in-groups), thus enabling violence against outgroups at times of social stress. Honour cultures, not only in collectivist societies, but also among gangs and paramilitary groups inside individualistic societies, have strong but short bonds that cut off the embrace of outgroups, according to Karstedt. Collectivism, as conceived in the Karstedt research, emphasises bonding to the exclusion of bridging, cutting off Granovetter's (1973) strength of weak ties because peoples' obligation, alignment and honour resides with their own group.

At times of great societal stress, extremists can take charge and enrol collective efficacy to projects of exclusionary violence. There is also a great deal of qualitative evidence in the armed conflict literature for Karstedt's view that there can also be a recursive loop between extreme violence and collectivism; when a society is afflicted with extreme violence, people seek shelter in loyalty to collectives that embrace protective duties towards them and that cut off outreach to perceived enemies. This is what Karstedt means by cutting off the strength of weak ties. We saw this danger in the United States with the way President George W. Bush could mobilise the formidable (if not sustained) collective efficacy the United States has been able to mobilise at times of war, especially collective efficacy of all media barons in 2001, but also that embraced the opposition Democratic Party, in a way that was easy to understand after the shock of the 9/11 attack on the United States. This collectivism and collective efficacy at a time of threat, in a society that is not normally highly collectivist, justified invasions of Afghanistan and Iraq that in the opinion of many international lawyers, and in mine, were crimes of aggression (Braithwaite & D'Costa, 2018). We saw it with the formidable collective efficacy of the Tutsi leadership of Rwanda in a counter-genocide against Hutus inside Congo in the aftermath of the 1994 Hutu genocide against Tutsis inside Rwanda (Braithwaite & D'Costa, 2018).

For the above reasons I do not think Sampson can be fully convincing that specifying collective efficacy as a combination of social cohesion with intervention to promote a liberal Rawlsian public good resolves the challenges. Yet this is not the only theoretical move Sampson makes to help with these challenges. The other move is to integrate "legal cynicism" into his empirical and normative analysis. He finds that the spatial concentration of collective inefficacy and legal cynicism together explain crime (Sampson, 2012: Chapter 9). In other words, if we can promote a world with equally strong collective efficacy and respect for laws (that include the human rights of outgroups), then collective efficacy is more likely to be a force for good. By my lights, this is the more promising of his two theoretical moves to counter the problem of the Ku Klux Klan as an historic instantiation of American collective efficacy. I would say that, of course, because it is a kindred move to the theoretical moves in the theory of shame and reintegration (Ahmed et al., 2001). This theory specifies bad shame as not only stigmatisation as opposed to reintegrative shaming, but also bad shame is shame that mobilises disapproval of those who seek to break away or blow the whistle on criminal groups or criminal subcultures. Good shame is reintegrative shaming that prevents domination and reinforces the values of just

criminal laws that protect against domination. Those anti-domination criminal law values help prevent collective and individual actors from participating in criminal subcultures.

Likewise we should read Sampson's theory as steering us to see good collective efficacy as collective efficacy that motivates individuals and collectivities to prevent crime and respect the rights of others. My inclination is to theorise this as non-dominating collective efficacy. Collective efficacy, in contrast, that motivates abuse of rule of law values such as human rights is bad collective efficacy. Or as I would theorise it, cultures and structures of collective efficacy against domination are phenomena social activism should seek to cascade. Those cascades should only be encouraged, however, when that mobilisation is checked and balanced by cultures of reintegrative disapproval of collective efficacy that dominates others. More structurally still, until we have clearer evidence of how highly specified forms of collective efficacy do good, we do better to be scholars who point to likely virtues of strengthening all forms of social capital in all kinds of places and institutions, but in combination with struggle against the politics of domination. Whether the domination takes the form of criminal domination of others or domination through concentrations of disadvantage, the struggle against it must be advanced through cascading many forms of social capital.³ At the end of his journey, I read this as the most important essence of Sampson's theoretical destination (and also Bandura's). Of course republican freedom as non-domination requires much more than this. It requires mutual checking and balancing among strong individuals (with self-efficacy), strong communities (with collective efficacy), strong states, strong markets, strong international institutions and strong legal institutions (which all also draw upon collective efficacy) (Braithwaite et al., 2012).

Conclusion

Reframing crime as a cascade phenomenon implies a shift from focus on individual offenders to a macrocriminology that is a work-in-progress. The contribution of this article is just a sketch of how self-efficacy and collective efficacy might be options for catalysing cascades of crime prevention. This article does not attempt to develop a well-formed theory of crime cascades, let alone marshall the evidence for such a theory. The Braithwaite and D'Costa (2018) study of cascades of violence across South Asia was a considerable empirical undertaking that could, perhaps, be submitted as a proof of concept. No more than that. The ten propositions of that book about cascade mechanisms towards war and peace are more important than those about crime, particularly in showing what can be done with the insight that the best way of protecting ourselves from future wars is to stop getting into current ones. Yet a neglected reason for the importance of that policy work is that war and crime cascade into each other so profoundly. Below are some starting hypotheses for a reconfiguration of criminology based on the way this article has built upon that book.

Crime cascades to more crime through the following common dynamics:

- (1) modelling (often conceived as emulation or diffusion);
- (2) commercial interests cascade particular forms of crime (eg cocaine franchising) and particular kinds of soft targets for crime (eg Facebook users);
- (3) crimes of parents cascade to crime by children; crimes of children cascade to crime by their friends; differential association cascades;
- (4) hopelessness, loss of identity and closure of opportunities tend to cascade, particularly at hot spots of concentrated disadvantage in conditions of extreme inequality and policy failure in providing decent housing for all;
- (5) war and pro-violence politics cascade to hopelessness, closed opportunities and more crime; crime cascades to more war; war cascades recursively to more crime.

Then it was argued that crime prevention cascades when:

- (1) Respected actors have the self-efficacy to transform cultures by modelling anti-crime norms; self-efficacy scales to collective efficacy through explicitly connecting evidence-based micro-criminology to a macrocriminology of cultural transformation (the lessons from Australian gun and drunk driving control);
- (2) Norms of civility and non-dominating collective efficacy at one locale spread like inkspots that connect up inkspot to inkspot, covering whole societies with norms of civility;
- (3) Parents and schools mobilise collective efficacy to reject stigmatisation, yet communicate to their children why violence and stealing are shameful;
- (4) This enables redemption scripts for offenders to help themselves, and to grasp the self-efficacy to cascade help to other offenders as wounded healers;
- (5) An inclusive politics of hope, of identity formation, and opening of legitimate opportunities cascades to embrace formerly disadvantaged communities (collective efficacy becomes part of CHIME and helps constitute CHIME);
- (6) Institutions of civil society, following the model of Alcoholics Anonymous, institutionalise obligations to pass on CHIME as an integral part of recovery and as a structural way of cascading recovery;
- (7) Institutionally embedded primary groups – families, schools, work groups – that cascade non-dominating collective efficacy alongside other forms of social capital can deliver prevention effects in the criminology of place; conversely these prevention effects can depend on hot spot policing that makes streets safe for collective efficacy.
- (8) Awareness of what is required under 1–7 is complemented by Motivation and efficacious Pathways that actors can see (AMP) (Honig et al., 2015);

The Braithwaite and D’Costa (2018) cascade of norms of non-violence provides a ninth explanation of when and why crime prevention cascades. Specific anti-war norms that can be encouraged by social movement politics also cascade, such as the global norms against torture, against use of chemical weapons, against wars of aggression and the anti-mercenary norm. Braithwaite and D’Costa argue for universities to organise collectively a preventive diplomacy wiki for sharpening diagnostic capabilities in conditions of local and global complexity. These approaches to cascading war prevention have not been rejoined in this article because of its focus on domestic crime as a cascade phenomenon. Needless to say, however, if Braithwaite and D’Costa are right that war cascades to more war and more crime, war prevention cascades might cascade crime prevention. They advocate a macrocriminology of how to ride this tiger.

This essay has not grappled with the best methodologies for separating contagion effects from associations that are in fact contiguous actors being exposed to the same exogenous factor at the same time. These are methodological challenges in which sciences like medicine are more advanced than criminology, and challenges which this author would not tackle impressively. An implication of the analysis is that criminology must become methodologically stronger in that regard. Like medicine, criminology can learn to temper its exogeneity hang-up to see the importance of research on understanding how to dampen contagions, even when it does not yet understand the micro-mechanisms that drive their spread.

No claim is made that my nine hypotheses are systematically supported by the available evidence. They are suggested as a framework for the kind of macrocriminological reframing that might make a fist of big patterns in the evolution of crime. This includes explaining why western societies have dramatically less violent crime than they had centuries ago (Eisner, 2014); why so many Latin American societies have so much more criminal violence than other regions and have not experienced the post-1992 crime drop of their northern neighbours (Nivette, 2011); why East Asian societies have continuously experienced dramatic reductions in violence since the onset of the steep crime rise in many western countries from 1960; why in the same period the United States has had a higher crime rate and war-participation rate than other Western societies and the world’s number two powers, Japan then China, or the number three of the era (Germany). These are themes

I will flesh out in my future macrocriminology book. Mainstream criminology is stunted by an anti-scientific nationalism, devoting remarkably little attention to such macro patterns compared to the attention mainstream economics devotes to why certain spaces, times and organisations have superior growth, or mainstream political science to why some spaces and times are less democratic, more authoritarian.

How could a framework like control theory be seen by many criminologists as one of the most empirically supported of all theories without confronting it with macro questions such as whether it really makes sense to say that the United States has so much more crime than Canada, Europe, Australia or Japan because Americans are less able to control their impulses? My proposal is that conceiving crime as a cascade phenomenon is one fertile path to a reconfiguration of criminological theory. It is a path that might deploy Bandura's (2000) distinction between self-efficacy and collective efficacy and Robert Sampson's macro analyses of concentrated disadvantage and social support for transformation from anomie to collective efficacy. Hope resides there for making sense of micro and macro patterns that renew prospects for micro-macro theoretical synthesis.

Notes

1. In the state of New South Wales alone (where Homel focused his research), alcohol-related traffic deaths were around 400 a year up to 1980 and in spite of great growth in population and car ownership have been far fewer than 100 per year every year in the current decade, hitting a low of 45 in 2015 (Centre for Road Safety, 2018).
2. Fractals are objects that manifest self-similarity. This means geometrical features of similar structures across a range of scales.
3. Like Sampson's, my work has always been about the idea that disadvantage (and domination) *and ecological concentration of disadvantage* are mutually reinforcing drivers of high crime rates (based in part on comparison of US with Brisbane and Tokyo data from half a century ago) (Braithwaite, 1979). My initial forays as a scholar and political activist into how to dampen and disperse ecological disadvantage in Australian cities in the 1970s developed into a responsive regulatory approach. This regulation of the urban involved a diversity of approaches to gradually transforming concentrated disadvantage, particularly by mandating private housing developers to integrate publicly-funded housing for the poor into class-mixed developments in a way that is contextually responsive to complex emergence in urban ecologies.

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Notes on contributor

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