

BELOW THE BELT

POLICE USE OF CONDUCTED ENERGY
WEAPONS IN AUSTRALIA

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Electricity is neutral. It doesn't want to kill you, but it will if you give it a chance. Electricity wants to go home, and find a quick way to get there-and it will.

Electricity is always homesick. It is lonely. But it is also lazy. It is like a hillbilly with a shotgun and a jug of whiskey gone mad for revenge on some enemy....(Hunter S. Thompson, 1990: 953).

TABLE OF CONTENTS

ABSTRACT	VII
DECLARATION	VIII
ACKNOWLEDGEMENTS	IX
ACRONYMS	XI
INTRODUCTION.....	- 1 -
SUBLETHAL WEAPONS: PHILOSOPHER’S STONE OR PANDORA’S BOX?.....	- 1 -
SUBLETHAL WEAPONS IN AUSTRALIA.....	- 3 -
AUSTRALIAN POLICING: CONSENT OR COERCION?.....	- 6 -
SAFER POLICING?	- 9 -
BETTER THAN A BULLET?	- 11 -
THE INFLUENCE OF OPERATIONAL ENVIRONMENTS.....	- 13 -
UPPING THE ANTE?.....	- 14 -
HOPE, AWE AND FEAR.....	- 16 -
KEY EXPLANATORY CONCEPTS	- 18 -
KEY RESEARCH QUESTIONS	- 20 -
CHAPTER OUTLINE	- 20 -
CHAPTER ONE: RESEARCH DESIGN - AN EMBLEMATIC CASE STUDY	- 23 -
RESEARCH FRAMEWORK	- 23 -
<i>Figure 1: The Case Study in Context</i>	<i>- 25 -</i>
CONSTRUCTING THE CASE STUDY.....	- 26 -
<i>Table 1: Data Sources by category and quantity.</i>	<i>- 26 -</i>
<i>Figure 2: Research Overview.....</i>	<i>- 28 -</i>
LOCATING AND ACCESSING THE DATA.....	- 29 -
<i>Operational police policies.....</i>	<i>- 31 -</i>
<i>Government reports, evaluations and Coronial findings</i>	<i>- 33 -</i>
<i>Media reporting and commentary.....</i>	<i>- 35 -</i>
<i>Interviews with stakeholders</i>	<i>- 36 -</i>
METHODS OF DATA ANALYSIS.....	- 37 -
<i>Action Research.....</i>	<i>- 37 -</i>
<i>Documentary Content and Discourse Analysis.....</i>	<i>- 37 -</i>
<i>Conducting and Coding Interviews.....</i>	<i>- 39 -</i>
LIMITATIONS.....	- 40 -
ETHICAL ISSUES	- 41 -
CONCLUSION	- 42 -
CHAPTER TWO: BETWEEN THE LINES - BUILDING THE ORTHODOXY OF SUBLETHAL WEAPONS	- 43 -
THE ‘NON-LETHAL’ ARMAMENTARIUM	- 43 -

CONDUCTED ENERGY WEAPONS.....	- 45 -
THEORISING USE OF FORCE	- 46 -
TECHNOLOGY AND POLICING.....	- 48 -
TECHNOLOGIES OF POLITICAL CONTROL?	- 50 -
OC SPRAY: AN EXEMPLAR.....	- 52 -
CLINGING TO TECHNOFALLACIES	- 58 -
REPLACING LETHAL FORCE? ASSESSING THE EVIDENCE	- 60 -
‘EXCITED DELIRIUM’	- 63 -
AN ELECTRIC RIFLE FOR POLICE	- 65 -
LOS ANGELES: THE TESTING GROUND.....	- 69 -
THE FIRST CEW PROXIMATE DEATHS.....	- 71 -
WHISPERS OF DISSENT.....	- 75 -
LATER MEDICAL RESEARCH.....	- 77 -
THE BIRTH OF TASER INTERNATIONAL.....	- 79 -
<i>Figure3: Taser® Proximate Deaths in North America by quarter (September 1999 – March 2008)</i>	- 81 -
CONCLUSION	- 83 -
CHAPTER THREE: SELLING CEWS IN AUSTRALIA	- 85 -
A FOOT IN THE DOOR: THE DEMONSTRATION/TRIAL PERIOD	- 87 -
<i>Table 2: Chronology of CEW Proliferation in Australia</i>	<i>- 88 -</i>
2001: CEMENTING THE RHETORIC.....	- 90 -
2002-2003: HOMING IN	- 93 -
TOWARDS NATIONAL PROLIFERATION.....	- 95 -
<i>The Northern Territory</i>	<i>- 96 -</i>
<i>The Australian Federal Police/ACT Policing</i>	<i>- 96 -</i>
<i>Western Australia</i>	<i>- 97 -</i>
<i>New South Wales.....</i>	<i>- 101 -</i>
<i>Queensland</i>	<i>- 103 -</i>
<i>South Australia.....</i>	<i>- 107 -</i>
<i>Tasmania.....</i>	<i>- 107 -</i>
<i>Victoria.....</i>	<i>- 109 -</i>
CONCLUSION	- 110 -
CHAPTER FOUR: AGAINST THE GRAIN - CEWS AND THE USE OF FORCE CONTINUUM	- 112 -
MEASURING EXCESSIVE FORCE: THE LIMITATIONS AND POSSIBILITIES OF POLICY	- 113 -
USE OF FORCE: SEQUENTIAL OR SITUATIONAL?.....	- 115 -
<i>Figure 4: Typical Use of Force Continuum Model.....</i>	<i>- 117 -</i>
<i>Figure 5: LAPD Use of Force Barometer, 1978</i>	<i>- 117 -</i>
<i>Figure 6: Use of Force Options Model, Texas.....</i>	<i>- 118 -</i>
<i>Figure 7: Circular Situational Tactical Options Use of Force Model</i>	<i>- 120 -</i>
<i>Figure 8: Ontario Situational Behavioural Model</i>	<i>- 121 -</i>
<i>Figure 9: Canadian Incident Management Intervention Model.....</i>	<i>- 122 -</i>
<i>Figure 10: New Zealand Police Taser Tactical Option Card.....</i>	<i>- 126 -</i>
‘A DIFFERENTIATED USE OF FORCE’	- 127 -

CONCLUSION	- 129 -
CHAPTER FIVE: JUMPING THE GUN - AUSTRALIAN CEW POLICY.....	- 131 -
PRE-DEPLOYMENT CONSIDERATIONS.....	- 132 -
<i>Undue Influence?</i>	- 132 -
<i>Thresholds for Use</i>	- 137 -
DEPLOYMENT CONSIDERATIONS	- 138 -
<i>General Issues</i>	- 138 -
<i>Targeting Advice</i>	- 139 -
<i>Warnings provided to police</i>	- 139 -
VULNERABLE GROUPS.....	- 143 -
POST-DEPLOYMENT CONSIDERATIONS.....	- 145 -
<i>Aftercare Requirements</i>	- 145 -
<i>Reporting Requirements</i>	- 147 -
<i>Evidence Collection</i>	- 149 -
ADDRESSING INCONSISTENCIES.....	- 149 -
ESTABLISHING NATIONAL GUIDELINES: TOWARDS ACCOUNTABILITY	- 150 -
PRE-DEPLOYMENT GUIDELINES	- 151 -
DEPLOYMENT GUIDELINES.....	- 152 -
POST-DEPLOYMENT GUIDELINES	- 153 -
CONCLUSION	- 154 -
CHAPTER SIX: LIGHTNING STRIKES: 7,000 TASERS	- 156 -
<i>Table 3: Australian Reports and Reviews 2007-2011</i>	- 158 -
TOM SWIFT’S MISADVENTURES IN AUSTRALIA.....	- 158 -
THE DEATH OF MARK CONWAY.....	- 159 -
MISSION CREEP IN WA.....	- 161 -
TASER IGNITIONS	- 163 -
ASSAULTS AGAINST POLICE.....	- 164 -
TARGETING ABORIGINAL AUSTRALIANS	- 168 -
ACCIDENTS AND CALAMITIES.....	- 171 -
USE AGAINST PEOPLE WITH A MENTAL DISORDER	- 174 -
MISSION CREEP AND VULNERABLE AUSTRALIANS	- 176 -
<i>Gottlieb Rubuntja</i>	- 177 -
<i>Antonio Galeano</i>	- 180 -
<i>Thin Ba Le</i>	- 182 -
<i>Conclusion</i>	- 183 -
CONCLUSION: BELOW THE BELT	- 185 -
A CHAMELEON RHETORIC?.....	- 186 -
THE NEED FOR RESTRICTIVE POLICY.....	- 188 -
THE PRINCIPLE OF MINIMUM FORCE	- 189 -
ACCOUNTABLE WEAPONS USE	- 190 -
FUTURE RESEARCH.....	- 193 -

CONCLUSIONS.....	- 193 -
APPENDICES.....	- 196 -
APPENDIX ONE.....	- 197 -
TIMELINE OF PROMINENT CEW EVENTS.....	- 197 -
APPENDIX TWO.....	- 204 -
TASER INTERNATIONAL VOLUNTARY EXPOSURE CONSENT FORM	- 204 -
APPENDIX THREE	- 209 -
TABLE 4: AUSTRALIAN CEW PRE-DEPLOYMENT POLICY ITEMS	- 209 -
APPENDIX FOUR.....	- 211 -
TABLE 5: AUSTRALIAN CEW DEPLOYMENT POLICY ITEMS.....	- 211 -
APPENDIX FIVE.....	- 215 -
TABLE 6: AUSTRALIAN CEW POST-DEPLOYMENT POLICY ITEMS.....	- 215 -
APPENDIX SIX	- 217 -
MODEL AUSTRALIAN CEW GUIDELINES FOR POLICE.....	- 217 -
BIBLIOGRAPHY	- 221 -
CEW OPERATIONAL POLICIES, GUIDELINES, POLICY POSITIONS AND MODEL POLICIES	- 253 -

ABSTRACT

This thesis presents a critical examination of the proliferation of sublethal weapons in Australian policing. It traces the introduction of such weapons in Australian policing, with an emphasis on Conducted Energy Weapons (CEWs), in particular Tasers®. Using a multi-method, phronetic approach it examines whether the rhetoric used to support the introduction of CEWs is reflected in the policies related to the use of such weapons and in evidence about their use in the field. Phronetic methodology aims to explain social phenomena via the piecing together of large and small details that form the context of events; in this case the introduction of CEWs in Australia, the resulting policies established to control the weapon's use (excluding Tasmania and South Australia where access to the policy documents was refused) and also evidence about its use in practice. This comparative analysis of CEW use in each Australian state and territory is directed at three specific sites: the rhetoric used in relation to the introduction and further justification of CEW use by police across Australia, the policies used to guide police in their use and the available evidence about how CEWs are used in practice. The analysis draws on a broad range of sources incorporating document, news media and interview material.

The findings draw attention to the phenomenon of 'mission creep' occurring in Australia, where CEWs have come to be used well outside of their original intended purpose. The thesis shows that this pattern has already been observed in relation to Oleoresin Capsicum spray (OC Spray), which is the other type of sublethal weapon widely adopted by police in Western democracies. It is now being observed internationally in relation to CEWs. The thesis therefore adds an Australian perspective to a growing body of literature suggesting that sublethal weapons' use by police is likely to have a corrosive effect on police/community relationships and, crucially, on the principle of minimum force. It further argues that the weapons may have a profound impact on the delicate balance of consensual versus coercive policing styles. The analysis is set against the broader history of CEWs, and especially events in North America, where electronic weaponry evolved. Experiences in Britain and New Zealand are also examined briefly.

The findings also demonstrate that the reasons for CEW adoption by police across jurisdictions, nationally and internationally, are very similar. It is argued that this is the case because decisions (and policy making) have been based on a series of misconceptions about sublethal weapons' utility. The thesis argues that the problems arising in jurisdictions that use CEWs are so similar as to warrant a set of clear statements about the potential consequences of their inappropriate deployment in Australia. On this basis, this research concludes by making an argument for the importance of establishing strict national guidelines to control the use of CEWs and by offering a range of observations on what such guidelines could look like.

DECLARATION

I declare that the work presented in this thesis contains no material which has been accepted for the award of any other degree or diploma in any university or other institution. To the best of my knowledge and belief, this thesis contains no material previously published or written by another person, except where due reference is made in the text of the thesis.

Emma Ryan:

Date:

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ACRONYMS

ACLEI – Australian Commission for Law Enforcement Integrity

ACPO – Association of Chief Police Officers of England, Wales and Northern Ireland

ADS – Active Denial System

BCSS – British Council for Science and Society

CAPB – Canadian Association of Police Boards

CEW – Conducted Energy Weapon

CED – Conducted Energy Device

CCC – Corruption and crime Commission

CMC – Crime and Misconduct Commission

CPA – Canadian Police Association

ECD – Electronic Control Device

EI – Electronic Incapacitant

EMI – Electro-muscular Incapacitation

FBIS - Forensic Behavioural Investigative Services

IACP – International Association of Chiefs of Police

LRAD – Long Range Acoustic Device

NGO- Non Government Organisation

NSW – New South Wales

NT – Northern Territory

NTPol – Northern Territory Police

OPI – Office of Police Integrity

PCP – Phencyclidine, an illicit drug

PERF – Police Executive Research Forum

PIC – Police Integrity Commission

QLD - Queensland

QPS – Queensland Police Service

OC – Oleoresin Spray

SA – South Australia

SAPol – South Australia Police

SOG – Special Operations Group

SPSU – State Protection Support Unit

Tas – Tasmania

TasPol – Tasmania Police

TOU – Tactical Operations Group

TRG – Tactical Response Group

Vic - Victoria

UK – United Kingdom

VicPol – Victoria Police

WA – Western Australia

WAPol – Western Australia Police

INTRODUCTION

SUBLETHAL WEAPONS: PHILOSOPHER'S STONE OR PANDORA'S BOX?

In many countries, those charged with keeping public order have been increasingly attracted by the glittering prize of a 'technological fix' for the problems presented to them by angry crowds. Ideally this should be some gadget, process or technique 'scientifically' designed to induce the members of the crowd to disperse and go home, without at the same time inflicting on them the kind of harm which might have unpleasant political repercussions.

So far, discussion among scientists on this subject has been largely confined to whether such a Philosopher's Stone yet exists, or (if not) whether it is technically feasible. There has been much argument about the features of weapons that have been tried in the field: whether they were adequately tested, whether the ill-effects they caused were reversible, whether they might have unforeseen long-term deleterious consequences. These discussions cannot be ignored, but they must not be allowed to mask the more fundamental issues at stake – those of the sociology of 'harmless weapons' (Sieghart, 1978).

Sublethal weapons first appeared in the policing armoury during the 1970's in the form of tear gases and kinetic bullet rounds. As indicated in the quotation above, they were initially employed with the purported intention of effectively (and 'harmlessly') dispersing unruly crowds. Despite these apparently cautious and limited beginnings sublethal weapons have since drifted unrelentingly into everyday policing within western democracies globally. This thesis examines the broader social and political implications of this drift, arguing that these have been poorly understood by the public, police and key policy makers in Australia. In particular, the analysis highlights the challenges posed to police policy makers seeking to make sound and informed decisions about criminal justice practices within the context of market-based pressures related to 'risk control' in modern democracies.

Questions have lingered for over thirty years around two prominent issues arising from the widespread adoption of sublethal weapons by police: the safety of new use of force technologies and also their capacity to erode freedoms, liberties and rights (The Council for Science and Society, 1978; Koscove, 1985; Kelley, 1990; Allen, 1992; Granfield, Onnen and

Petty, 1994; ACLU, 1995; Doubet, 1997; Ireland, 2002; Lewer and Davison, 2006; Rappert, 2007; Rejali, 2007; Adams and Jennison, 2007; Williams, 2008, Ryan, 2008; British Columbia, 2009). In terms of the first and perhaps primary issue of safety, the large body of extant research (although too frequently clouded by the sponsorship of manufacturers) tends towards the conclusion that while some people may unexpectedly die from sublethal weapons exposure, such weapons remain a better alternative to firearms; this argument is stuck in a rhetorical loop that almost always circumnavigates a series of more fundamental questions regarding the appropriate boundaries of police power. This research seeks to add to the much smaller body of research that explores this 'latter' aspect of the problems presented by the use of sublethal weapons by police. Specifically, this thesis draws attention to the social and political implications of arming police in Australia with Conducted Energy Weapons (CEWs), especially the relationship between such weapons and the principle of police use of minimum force. It makes the argument that these and other sublethal weapons have resulted in a profound recalibration of the role of minimum force in policing, which has historically been central to the policing mandate and has traditionally distinguished the police from the military.

The push for technological solutions to problems of social order has continued unabated since the early 1970s (Rejali, 2007; Wright, 1998; Rappert, 1999). This trend has impacted on the practice of policing in many ways, profoundly changing modes of transport, information management and the surveillance capacities of police (Marx, 2007; Dupont, 1999; Wright, 2008, Manning, 2009). In the *The SAGE Dictionary of Policing*, Manning (2009) observes six types of policing technology; mobility technologies (e.g. cars), training technologies (e.g. video), transformative technologies (e.g. microscopes), analytic technologies (e.g. computers), communicative technologies (e.g. telephones, radios, computers) and lastly, weapons technologies (e.g. automatic weapons, armoured vehicles). Although Manning does not include CEWs in his discussion of technology, he notes that 'while the range of non-fatal tools is astounding, few other than everyday tools are used: pepper spray, cars, fists, feet, flashlights and nightsticks' (Manning, 2009: 298). This is notable for the way that OC spray (or pepper spray) is represented as an *everyday* item, indicating its broad acceptance as an unremarkable necessity¹. A key issue at the core of this thesis is whether CEWs will eventually come to be accepted in the same way, and if so, what the implications of that may be.

Later in his contribution, Manning argues that technology has caused police to become increasingly focussed on types of crime that they can 'eradicate by scientific means' and that

¹ The term OC spray used throughout this thesis is intended to refer to all varieties of capsicum based sprays and foams used by police in Australia.

this 'has increased their technological dependency, distanced them from their publics, and had dubious impact on crime' (Manning, 2009: 299). He says that the impact of technology is only just coming to be understood, but that this is 'clearly related to what is seen as useful amongst patrol officers; as they discover its value, it comes to be utilized' (Manning, 2009: 299). It is this nexus that this thesis explores to better understand the impact of technological innovations on police use of force practices in the Australian context, especially in relation to the police mandate to use only minimum force.

While most early sublethal innovations were expressly aimed at crowd control, seeping into policing from the military, we have recently entered a new phase where sublethal weapons have assumed a much more central place in the everyday practice of modern policing, being primarily targeted at individuals. This development has serious implications for the principle of minimum force that has underscored the modern institution of policing since its inception. Much of the rhetoric that surrounds sublethal weapons suggests that their use is completely in line with this core principle, since they offer the possibility of avoiding the use of firearms. This rhetoric warrants close examination since it suggests that CEWs will support minimum force principles and practice. This study examines their potential to undermine the key mandate of minimum force in policing principally through the examination of police policy and through identifying the use of such weapons in Australian critical incidents where the use of firearms could never be justified.

SUBLETHAL WEAPONS IN AUSTRALIA

Sublethal weapons have been debated, discussed and researched for over thirty years in the United States and used by general duties police in that country for almost twenty five years (Meyer, 1991; Rejali, 2007). The history of their use in Australia, however, is relatively short (around fifteen years at the time of writing). All Australian state police forces now use Oleoresin Capsicum spray (OC), which was the first trialled and made general issue in Victoria, in 1994. OC was rapidly adopted by other policing jurisdictions, which in Australia are state and territory based (McCulloch, 2000). The widespread adoption of CEWs has been a much slower process and Victoria, at the time of writing, is still deciding whether to issue CEWs as a general duties weapon.

CEWs have been introduced progressively across the country since 1999, working their way from specialist police to general issue first in Western Australia, followed by Queensland and New South Wales. There is limited availability to general duties officers in South Australia, the Australian Capital Territory and the Northern Territory. In Tasmania and Victoria, CEWs are restricted to special response police although Victoria has recently conducted a trial, limited to two rural police service areas, and is currently examining the possibility of general issue deployment. The roll out of CEWs in several Australian states occurred in controversial circumstances, explored in detail in Chapter Four, where police ignored findings and official recommendations to halt expansion pending more review and

research. In addition, at least four deaths have now followed CEW use in Australia². The circumstances surrounding each of these are examined in Chapter Seven.

As mentioned, the Western Australia police led the CEW charge in Australia, introducing Taser International's M26® to their Tactical Response Unit in late 1999 and making the updated X26® general issue for operational police by early 2007. New South Wales introduced two Tasers® to their Tactical Operations Unit in 2001, commencing a 'roll out' to general issue in 2008. Queensland purchased two weapons for their Special Emergency Response Team in 2002 and made them general issue in early 2009. South Australia purchased Tasers® for the Special Task and Rescue Squad in 2002 (the exact number is not known) and extended the trial to general duties officers in mid-2008 and announced that 300 Tasers® would be purchased for carriage in each police vehicle in late 2009. The Northern Territory also trialled the new technology in their Territory Response Section beginning in 2003, and then trialled them as general issue weapons in some policing districts in 2007. It made them general issue in 2008 (Barwick, 2008). The Special Operations Group in Victoria trialled the TaserX26® in 2003, and adopted these as standard equipment in 2004. Victoria conducted a twelve month general issue trial (which commenced in July 2010 in two rural locations, Bendigo and Morwell). A decision has, at the time of writing, not yet been reached in Victoria about broader deployment although seven months have elapsed since the trial's conclusion³. Tasmania stands alone in having trialled CEWs and rejected them as general issue for the time being. Most Australian states have thus, in some capacity, embraced CEWs and their sublethal allure, although as will be demonstrated in Chapter Four, there is little evidence of public consultation in this process and assurances about their safety have come mainly from the weapon's manufacturer, Taser International.

All CEWs used in Australia are supplied by Taser International. Stinger Systems is currently their major competitor, although no Australian jurisdiction has purchased their product to date. So while this research focuses on CEWs generally, it is the case that only one manufacturer's weapon is utilised in Australia. Each use of the term CEW in this work is, in

² A fifth death occurred in NSW just before this thesis was submitted. The man who died was a young Brazilian who was being pursued by police after being accused of stealing a packet of biscuits in Sydney. Because of its recent occurrence, this incident has not been analysed in this research.

³ Victoria announced the further roll-out of Tasers to general duties police just before this thesis was submitted. This will commence in July, 2012 and is expected to take several years to complete. The roll-out will require the procurement of significant government funding.

fact, a reference to a Taser®. Tasers® are hand held, gun shaped weapons that shoot two needle tipped darts into the skin, trailing a fine wire electrical cable connected to the hand set. They are available in either black or yellow, but the yellow unit is preferred as it is more easily distinguished from a firearm than the black model. These CEWs are usually carried on an officer's utility belt, on the opposite side from the firearm. Some jurisdictions are moving from a belt to a utility vest because the weight of officers' equipment is now beginning to cause back problems.

Tasers® firing range depends on the type of cartridge attached to the unit. The wires attached to these cartridges range in length but the standard is approximately 6.4 metres. When used in 'probe mode' the weapon delivers a 50,000-volt electric shock designed to temporarily paralyse the muscles of the recipient and immediately incapacitate them. Compressed air is used as the firing mechanism. Taser® CEWs can also be used in 'drive stun mode', in direct contact with skin. This mode will not cause the neuro-muscular incapacitation (NMI) that characterises probe mode, although it can be used to complete the NMI electrical circuit when applied to the subject's skin in circumstances where only one barb is attached following a probe mode deployment. When used in the absence of an attached probe, drive-stun mode is purely a pain-compliance technique, which often leaves burn marks on the subject's skin.

While Taser International, based in Scottsdale, Arizona claims that their weapon has never been identified as a cause of death, Amnesty International, the New York Civil Liberties Union, Civil Liberties Australia, other civil liberties organisations and cyber activists have serious concerns about the validity of this claim (New York Civil Liberties Union, 2004; Amnesty International, 2007; also see truthnottasers.blogspot.com; excited-delirium.blogspot.com). Scientific evidence regarding the capacity of an electrical charge such as that emitted from a Taser® to cause death has generally shown no established direct link. However, there is also evidence that in combination with other factors, such as drug and alcohol use, heart conditions, exhaustion or small stature, Tasers® have led to fatal outcomes (Mukasey Sedgwick and Hagy, 2008). Added to this, it is typical that sublethal weapons safety studies have been sponsored by weapons manufacturers and their impartiality has been seriously questioned (Doubet, 1997; Stanbrook, 2008; Azadani, Tseng, Ermakov, Marcus and Lee, 2011). Certain vulnerable groups have now clearly been identified and concerns have been expressed that Indigenous Australians are amongst them (AAP, 2008; Cooper, 2008; PerthNow, 2010). Common sense suggests the same although only one Australian jurisdiction's policy, the Northern Territory, currently provides warning about the increased physiological vulnerability of Indigenous people to poor CEW outcomes.

This is a matter of great concern given the evidence already at hand that Indigenous people are disproportionately targeted by OC spray, principally capsicum based sprays. The Crime and Misconduct Commission in Queensland (2005: 25) reported that 33% of capsicum spray incidents involved Indigenous Australians who currently make up just 3.6% of the

overall Queensland population (Australian Bureau of Statistics, 2010). Early statistics capturing CEW deployment are almost directly mirroring this pattern, where 30% of 1013 deployments (drawing or firing) were directed against Indigenous Western Australians who comprise 3.4% of the state's population (Corruption and Crime Commission, 2010; Australian Bureau of Statistics, 2010). Some disturbing individual cases of CEW use against Aboriginal people have also emerged. The Aboriginal Legal Service of Western Australia has reported CEW use against an 18 year old girl, who was in late term pregnancy (PerthNow, 2010). In 2010, CCTV of an Indigenous man, Kevin Spratt, being repeatedly subjected to a CEW whilst in custody was broadcast nationally and attracted significant criticism (Corruption and Crime Commission, 2010). These events amplify disturbing patterns around the policing of Indigenous people that are already well documented in Australia (Johnston, 1991; Cunneen, 1994, 2001, 2009). Understanding the consequences of CEW deployments for vulnerable groups is a key concern of this thesis.

AUSTRALIAN POLICING: CONSENT OR COERCION?

The use of force by Australian police has distinct influences, both historical and contemporary. While our policing structure owes much to its English colonial origins, its practice has arguably been quite different. Important aspects of Australia's history as a penal colony encroaching on another group's territory have given rise to a number of factors that have arguably increased the degree to which weapons are considered a reasonable option for the resolution of law and order problems. While the original English Peelite model of policing continues to underscore the emphasis placed on minimum force (at least in terms of policy), it is evident that serious tensions exist between consensual and coercive policing approaches in present day Australia. It has been argued that modern community policing initiatives represent the 'velvet glove' on the 'iron fist' of paramilitary policing and that the two are actually complementary, even co-dependant strategies (McCulloch, 2001, p. 4). McCulloch argues that while community-policing strategies are strong on rhetoric and popular appeal, they have had less success impressing police themselves or impacting on operational policy. That the iron fist retains prominence in Australian jurisdictions is arguably supported by the rapid introduction of CEWs over the last decade.

Philosophically, however, Peelite notions certainly exerted influence over policing in Australia, perhaps especially in Melbourne which was largely populated by free settlers. Wilson's examination of early policing in Melbourne shows that conceptions of police as service providers and social administrators, and the attendant ideology of minimum force, were present in colonial Australia, certainly in theory if not in practice. Early police policy in Melbourne emphasised strict rules of demeanour and attire designed to reflect, with great dignity, the 'mystical and benign law ultimately emanating from the collective will of those policed' (Wilson, 2006: 47). Early police administrators perceived the role of discretion and service to the public as central, with Melbourne's Chief Commissioner Standish commenting in 1884 'it is this want of discretion and the unnecessary and harsh arrests which are

continually made that bring so much odium on the police force' (Wilson, 2006: 58). Despite this managerial philosophy, newspaper reports suggest that force was used in many arrests, especially those involving drunkards; dealing with intoxicated or drug-affected people has proved a pervasive and persistent problem for police since colonisation (Wilson, 2006: 57). As Finnane notes, 'deference to imperial example did not mean indifference to local contexts' (Finnane, 1994:14).

In contrast to the 'consensual' model of policing that characterised much of the Peelite plan for police, the character of Australian policing, especially in rural areas, tended much more towards coercive models traditionally represented by the more paramilitary approach utilized by the Royal Irish Constabulary (Finnane, 1994; McCulloch, 2001; Wilson, 2008). The centrality of use of force is more pronounced in regions where police were tasked with quelling dissent, as was the case in Ireland and also on the frontiers of early Australia (Finnane, 1994). The role of early Australian police in quelling Indigenous dissent is well documented and has imposed a legacy of mutual distrust that lingers to the present day (Bird, 1992; Allas and James, 1997; Cunneen, 2001; McCulloch, 2001; Wilson, 2008). Other work highlights the impact of the goldrushes and bushranging on the unique character of Australian policing (Finnane, 1994; Haldane, 1986). The limited capacity of police to deal with native born bushrangers and renegades made them 'the laughing stock of many in the colonial populace empathising with the superior bush skills' of the renegades (Finnane, 1994: 29). In Victoria, The Kelly Gang era proved immensely influential on the morale and structure of local police, resulting in a Royal Commission and significant internal reorganization (Finnane, 1994). During this period, Ned Kelly, the son of an Irish convict, infuriated and evaded police for many months in 1878-79, impersonating police in the small town of Jerilderee, shooting three officers dead in the Stringybark Creek incident and finally staging a revolution of sorts in the town of Glenrowan, famously clad in roughly forged iron armour. Here he was arrested and was finally hanged for his trouble in 1880. The Kelly legend is ubiquitous in Victoria, whether one considers Kelly a hero or a villain, his story lends weight to the argument that frontier policing in Australia was of a very different character to that performed in urban England, and especially London (Jones, 1995).

Historical indicators about minimum force in Australian policing provide the context for understanding its contemporary character. The nature of the emphasis placed on the use of minimum force in contemporary Australian policing is of importance to this analysis, as arguably sublethal weapons, such as CEWs, assist police in reducing the harms associated with difficult arrests. Such an argument rests on a set of assumptions which are critiqued throughout this thesis. CEWs, in particular, have acquired a reputation as being non-lethal (or at least less-lethal), through media statements and strategic marketing. Coupled with this is their reputation for an extremely effective 'take down' capacity which has resulted in the broad assumption that the weapon therefore has the capacity to reduce the need to resort to firearms. Added to these assumptions is the persistent claim that such weapons reduce rates of injuries to police and suspects. In the face of such arguments and

assumptions, the use of minimum force can seem to be supported the use of CEWs. As this thesis will seek to demonstrate however, such representations of CEWs rely on a small but significant recasting of the flavour of minimum force, from minimum *coercive* force to minimum *injurious* force. The impacts of this reconstitution are not well articulated at present and seem rather poorly understood.

Since the second half of the last decade international concern has rapidly grown around the potential of electronic weapons to be misused or abused by police (British Columbia, 2009; Amnesty International, 2008; United Nations Committee Against Torture, 2008). The United Nations Committee Against Torture expressed concern about Portugal's purchase of Taser X26® units. The concern was based on the weapons capacity to cause severe pain 'constituting a form of torture' and also that 'in some cases it may even cause death' (United Nations Committee Against Torture, 2008: 5). In Australia there is growing evidence of Taser® use on people who were already restrained and in custody, on children as young as twelve, pregnant women and on people already complying with police (Wray, 2008; The Law Report, 2008, Corruption and Crime Commission, 2010). There are further examples from the United States of Tasers® being used by police to control anti-war protestors and otherwise obtain compliance from people posing no immediate threat (Pittsburgh Independent Media Center, 2005; Killian, 2007; Bobb, Barge and Naguib, 2007). Tasers® are certainly being used, internationally, in contexts where resort to firearms would be entirely inappropriate, and which are not in line with the rationales for their introduction. Such use undermines the rationale for introduction, and this should be a matter of open public debate.

In a paper delivered to the 2011 Australian Public Sector Anti-Corruption Conference by the Director of WA's Corruption and Crime Commission's Corruption Prevention Unit, Roger Watson, it was argued that the question of whether issuing police with CEWs as a replacement for intermediate options (such as OC spray or empty hand techniques) was acceptable to the community 'has never been substantively debated' (Watson, 2011: 6). In truth, there has been very little effort to properly inform the wider community about the operational limitations of CEWs. The community has relied largely on the media for information, and the media has struggled to find independent voices in the debate as this thesis will demonstrate. Watson's address to the conference raised significant questions about the role of CEWs as tools for compliance as opposed to firearms replacements which have so far not been adequately considered. These concern what we know about public perceptions of CEW use (which is arguably very little), whether CEW use may ultimately lead to alienation between community and police services and whether CEWs 'teach children to trust police or to fear them' (Watson, 2011: 7).

Certainly, to date, there are indications that CEWs have not only been used for the purpose of compliance but carry some significant operational drawbacks, broadening the potential for accidents and misuse. Events to date show typical problems that are mirrored across those jurisdictions that have embraced the CEW. For example, police have accidentally

drawn and fired firearms when they intended to deploy a stun gun, with fatal consequences (Bier, 2003; Leonard, 2010; Msnbc, 2011; AAP, 2011). 'Childish horseplay' has resulted in officers 'taser'ing one another, or threatening to do so. A Florida Sheriff's deputy was suspended from duty for twelve days after one such incident in 2008 (NBC News Channel, 2008). In 2010, a WA officer was disciplined for using her CEW at a party (ABC, 2010). There are also cases, reported both in Australia and overseas, of officers accidentally 'taser'ing themselves (AAP, 2009). A Queensland officer lost his stun gun after it became detached from his utility belt while he was on duty; fortunately it was found by a community member who handed it in to a local station (AAP, 2008a; ABC News, 2008). Tasers have been implicated in police 'initiation' rituals in Western Australia (Styles, 2010). Recently, a deputy was killed, with his own firearm, in the United States following an unsuccessful Taser® deployment (Miller, 2010). It is not yet, by any means, clear that CEWs make policing a markedly safer occupation.

SAFER POLICING?

Policing is often represented as a highly dangerous occupation. This image is conveyed principally through popular media and television, but also tends to be emphasized during police weapons training. Certainly, police officers are required to confront and control critical incidents involving all kinds of citizens, from those engaged in criminal activities, protestors, drug and alcohol affected people along with sufferers of mental illness, homeless people and other vulnerable groups whose behaviour is interpreted as impacting on the rights of the majority. In carrying out this aspect of their role, police rely on their mandate to use force and this aspect of 'the job' is often imagined as the central function of police. In reality though, the day-to-day tasks of policing are far more mundane (Palmer, 1997). Routine patrol, traffic management and deskwork take up the majority of police time, with critical incidents taking up only a small proportion. Nonetheless, the fact that many people rely on police in times of uncertainty and crisis means that police are granted the special power to distribute what Bittner termed 'non-negotiable force' and they are generally granted wide ranging discretion to decide when, where and how this will be done (Bittner, 1990: 131).

A number of interests have combined to produce a broad acceptance of the necessity of weapons less harmful than firearms. The new sublethal weapons are very appealing to police for a number of reasons. Firstly, they are generally marketed as non-lethal by their manufacturers and so are perceived as reducing the likelihood of both moral and legal responsibility for police who cause death in the course of their duty. Added to this is a perception that sublethal weapons enhance officer safety, greatly reducing injuries to officers. Police unions have been quite vocal in their support of the general introduction of sublethal weapons, largely for this reason. Further, there is evidence to suggest that the use of the two sublethal weapons most often utilized by police in general duties activities, CEWs and OC sprays, can also reduce the frequency of injuries to those subject to policing over and above other options such as police batons and police dogs (Smith, Kaminski, Rojek,

Alpert and Mathis, 2007; Alpert, Smith, Kaminski, Fridell, MacDonald and Kubu, 2011). From some perspectives, this evidence is compelling. If reducing injuries is the goal and degrees of coercion are unimportant, then there is arguably more than enough evidence supporting the value of sublethal weapons.

On top of these attractive qualities, sublethal weapons also appeal to citizens who see them as a simple, effective solution to the moral dilemma of fatal shootings by police and for the effective resolution of all manner of unpleasant incidents. Lastly, they appeal to entrepreneurial manufacturers who develop, sell and market the weapons for their own profit, thriving on the idealistic perceptions of their consumers. A demand and supply dynamic has evolved around sublethal weapons so that manufacturers have been able to capitalize on the rising fear of crime and the litigious reactions to police use of lethal or injurious force. This idea of 'crime control as industry' was posited by Christie (2000) in relation to incarceration equipment and infrastructure. This notion translates easily into studies of use of force, where a thriving market in sublethal weapons is now well established.

The main selling point of sublethal weapons lies in their purported potential to provide an alternative to force measures that have, in the past, led to significant controversy. This is true of baton and firearm use, especially in Victoria where this thesis was written⁴. It is also particularly true of lethal force which has the potential to seriously undermine police/community relations and naturally carries devastating human consequences (Chappell and Graham, 1985; Skolnick and Fyfe, 1993; Task Force Victor, 1994; Office of Police Integrity, 2005; British Columbia, 2009). Sublethal technologies are perceived to provide the capacity for police to incapacitate a subject from a distance without causing physical harm. This capacity is enormously appealing to police and the public.

Some significant questions arise from the purported ability of sublethal weapons to provide an alternative to other weapons, especially firearms: are they always safe to use and will they only be used in place of lethal force? The first question requires a critical examination of the medical research which, taken in sum, presents a very confusing picture to the average social scientist. It will nonetheless be summarised for the reader's consideration in Chapter Two. The second question is one which police scholars are more familiar with and also better equipped to answer. Of particular importance in answering this second question

⁴ Victoria experienced controversies around baton use after police used a baton-charge manoeuvre against parents and children protesting against the closure of Richmond Secondary College in December, 1993. It also endured the Police Shootings era between 1986 and 1994, where the people shot and killed by police in Victoria outnumbered those of other states combined – see pg. 14 for further discussion.

are the circumstances in which sublethal weapons are utilised by police. Ample evidence is available nationally and internationally that police are resorting to CEW use in circumstances involving no immediate threat to the physical safety of officers or the public. There is much to indicate that sublethal weapons are primarily being used in circumstances that would never justify the use of firearms. In the United States there is evidence of CEWs being used on fare evaders, graffiti artists, peaceful protestors, people in wheelchairs and those already in custody, including people in hand-cuffs (DiJoseph, 2006; Pittsburgh Independent Media Center, 2005; Killian, 2007; Bobb, Barge and Naguib, 2007). This thesis gathers and analyses the evidence about CEW use in Australia for the purpose of assessing the degree to which patterns of use outside of policy restrictions are present in Australia.

BETTER THAN A BULLET?

Whether CEWs avert or reduce the use of firearms in Australian policing is a key question requiring an answer. As, mentioned, CEWs are often represented to the public as a potential method for avoiding lethal force; a former Western Australian Chief Commissioner's publicly stated argument that, 'we must always remember these tools are provided as an alternative to the use of deadly force' is emblematic of this position (Falconer, 2009). It is clear that in Australia, critical incidents with fatal outcomes have served as opportunities for protagonists to spruik the benefits of CEWs. Not only have Coroners recommended their introduction, but vocal press campaigns have been conducted in order to support the weapon's adoption, as shown in Chapter Four. For example, directly following the police shooting of a fifteen-year-old boy, Tyler Cassidy, in Melbourne in December 2008 the opportunity was taken by Taser International representatives and the Victorian Police Association to tout the benefits of Tasers®. The Australian distributor appeared on the television news implying that Tasers® could have been used to avoid the outcome (Seven News, 2008; National Nine News, 2008). Not only is this a questionable position, since all Australian CEW policies restrict their use on minors (as will be shown in Chapter Six) but it clearly seeks to influence public sentiment about CEWs in the wake of a young boy's death. The constant emphasis on the capacity of the CEW to save lives is demonstrated in this thesis, and set against the evidence regarding whether or not CEWs are put to this end in practice, or whether they are used more broadly than emotive rhetoric suggests.

Another potent counterpoint to the 'saving lives argument' is the fact that CEWs sometimes fail to be effective, often because the probes fail to make sufficient contact to complete the electric circuit required to incapacitate a subject. For example, a British court was told that Tasers failed in around 50% of deployments (*The Daily Mail*, 2008). In 2004, Dr. Bill Lewinsli, executive director of the Force Science Research Center (FSRC) at Minnesota State University-Mankato, in an unusual display of frankness, has said:

*good as the Taser is, it is not perfect. **Tasers fail more often than guns jam.** When your life is on the line, your best option in most cases will be deadly force. The Taser is for a*

lower level of response to a lower level of danger (Force Science News, 2004, emphasis added).

Apart from these two examples, this reality is barely evident in the media, marketing or public discussions of CEWs⁵. In fact, when police are faced with an armed offender, especially someone with a firearm, it is likely (and often reasonable) that they will respond with firearms and in most cases police policy will support them in doing so. Police in New Zealand, for example, are advised not to rely on CEWs for use against armed offenders (Police Operations Group and the Evaluation Team at Police National Headquarters, 2008). Canadian Police were similarly advised that CEWs were an intermediate option, until their policies were significantly overhauled in 2009 to reflect the necessity of raising the threshold for use (CBC News, 2009)⁶. This thesis will explore how Australian policies reflect this operational reality in Chapter Six.

The question of when and if CEWs should replace firearms is central to understanding the extent to which it is reasonable to market them as 'life-savers'. Occupational health and safety reasons alone would seem to dictate that sublethal weapons are best deployed well outside the range of circumstances appropriate for firearms use. This realisation is not new, as evidenced by the following observation by the Canadian Police Research Centre:

"it is a common misconception of the CEWs benefits that assumes they should only be used when an incident would require lethal force, and/or before lethal force is actually used in such situations...It is not reasonable for anyone to expect officers...to automatically use a CEW in the face of a lethal or grievous bodily harm threat when the safeguards of containment and back-up are not present or when the situation escalates rapidly" (Canadian Police Research Centre, 2005: 26).

⁵ Recently, this situation has shifted because movements are being made towards marketing the Taser X2 in Australia (in Vic and NSW). This caused the company representative to make the argument in the media that 'in some cases – and people have to understand this – these incidents are very emotional, a lot of adrenalin is (sic) sometimes the officer may miss' (ABC, 2012). Making no mention of the operational limitations of the CEW, Hateley adds 'a follow-up shot...is really important in a situation where it could be on someone's life' (ABC, 2012).

⁶ Canada's Braidwood Inquiry (which investigated a high profile CEW proximate death that occurred at Vancouver Airport in 2007 and represents the first significant public inquiry into CEWs) entitled their report 'Restoring Public Confidence'. This is evidence of the corrosive capacities of disproportionate CEW use.

Clearly health and safety considerations have played a key role in the relative ease with which CEWs have been adopted by police internationally. Evidence about common circumstances of deployment, arising mostly from official reports, supports the notion that CEWs have rarely been used as an alternative to firearms in jurisdictions that use them. This argument will be demonstrated in this thesis.

THE INFLUENCE OF OPERATIONAL ENVIRONMENTS

The operational environment of police will have a large bearing on discretionary police decisions about what circumstances are appropriate for sublethal weapons deployment. This, in combination with conveyed wisdom about the utilities of the weapons, will determine the frequency with which such weapons are used. Such determinations are likely to be significantly influenced by the geographical location of their deployment. For this reason, this thesis takes CEW use in Australia as a whole to represent a case study worth examining in the hope that future analyses of a similar kind will be undertaken in more and more specific locales. The development of such a knowledge base will enable us to better understand the nature of the impacts on operational policing. The thesis has taken a national focus since there was little previous knowledge on which to build. Each Australian jurisdiction is discussed in the body of the thesis in an effort to paint a picture of the operational environments into which CEWs were first introduced.

Arguably, the higher the perceived danger and the pressures on police to quickly resolve critical incidents, the more likely it is that sublethal weapons will represent a 'critical tool' for law enforcers (Vilke et al, 2007: 341). This may explain why CEWs are considered the 'weapon of choice' in some jurisdictions (Corruption and Crime Commission, 2010). Coupled with the belief that these weapons can reduce injuries to officers and suspects, the reputation of sublethal weapons as a potentially lifesaving technology indicates that use will continue to rise and further development and design will continue. Further, even where the very best quality policies are developed, police will often fail to adhere to them. Seminal scholarly observations about the use of force generally, which began in the mid-1960s provide a backdrop for understanding why this might be so.

Jerome Skolnick's ground-breaking 1966 work *Justice Without Trial* which examined the 'role pressures' police face in keeping order and upholding the law, beat a path that many have followed. Skolnick argued that no matter what directives management issued, or what formal policies were set in place to control use of force by police, a 'working personality' evolved which emphasized efficient administration over the requirements of the rule of law (Skolnick, 1975). This work formed the basis for a great deal of research that followed exploring the nature and impact of police culture, the term used by scholars to describe the organizational norms that instruct officers' behaviour on the job. Much has been written about this feature of policing, but for the purposes of the current work, it is enough to note that culture has been identified as glorifying authority and aggression, as well as encouraging a perception amongst police of being 'above the law', protected by loyalty and

the 'code of silence', binding operational police to turn a blind eye when they witness indiscretions from fellow officers (Chan, 2009).

Skolnick has argued more recently that while culture flows from the nature of police work, police behaviour is also influenced by the values and politics of the community being policed (Skolnick, 2008). It is therefore still possible to influence policing behaviours through articulated and enforced community standards. In making his case, Skolnick refers to Muir's work, based on observational studies of police a decade after Skolnick's original writing, where it was argued that 'police who rely on coercive force to make the world a less threatening place make it a more dangerous place for themselves and for other cops' (Muir, 1977: 110). Muir observed that skilled officers could resolve even very volatile and difficult situations with appropriate training and advanced communication skills. Skolnick agrees that this is possible but only in the circumstance that 'communities appoint police executives who are able to motivate police to use force minimally and correctly' (Skolnick, 2008: 40). This brings us to a core issue to be considered in the current assessment of sublethal weapons. If police are supported by the community in the acquisition of chemical sprays and electrical weapons, it is difficult to question the validity of their use. This highlights the need for communities to be properly informed about the capacities of such weapons and the importance of demystifying the rhetoric and circumstances surrounding their introduction. With enough misuse or perceived abuse, it is quite possible that CEWs especially may result in greater contempt for police amongst those most vulnerable to its use with the end result being a policing environment more charged and volatile than ever.

UPPING THE ANTE?

The present study is strongly influenced by events in the Australian state of Victoria, where a significant 'crisis of policing' was experienced in the early 1990s, which has come to be known colloquially as the Victorian Police Shootings Era. At this time, the community began to strongly question an extraordinarily high number of shootings by police. These numbers were higher than all other Australian states combined and the government was forced to respond to public concern. The crisis reached a peak when sixteen people were shot dead in Victoria between 1990 and 1994, many of them mentally ill. An independent taskforce of inquiry was assembled and an intensive, large scale Coronial investigation, overseen by State Coroner Hal Hallenstein, was held (Task Force Victor, 1994; McCulloch, 2001). Both inquiries were critical of police culture, training and tactics, attributing the high number of shootings directly to these factors. Victoria police responded to the crisis by introducing a new sublethal weapon in 1998, OC spray – the new panacea presented as an alternative to the use of firearms (McCulloch, 2000). This period represents a fascinating example of strong community questioning of use of force practices by police and also of how police respond to public pressure (McCulloch, 1990). It is argued here that this period also provides a context for understanding Victoria's relative caution in introducing CEWs when compared to other parts of Australia. Community awareness and activism around use of force remain quite strong in this state and arguably there has been more critical analysis of

CEW introduction here than in any other Australian state or territory (Federation of Community Legal Centres, 2010; Ryan, 2008, 2010a, 2010b). The march from enthusiasm for OC spray to calls for CEWs is still evident in Victoria, although it is taking much longer than other states.

In making sense of this landscape, I have taken a broadly 'phronetic' approach to the analysis of sublethal weapons in Australia in this thesis, drawing directly on Flyvbjerg's model (Flyvbjerg, 2001). A phronetic approach removes itself from traditional 'natural science' methodological approaches that are based on assumptions of value neutrality and emphasises instead the importance of in-depth narratives of how power works and its consequences for the attempt to understand social and political phenomenon. The aim of this approach is to provide an open account of the possibilities, problems and risks we face in specific domains of social action, which in reality can never be value neutral: we will always have to 'take a side' (Becker, 1967).

It is a basic tenet of phronetic research that the social and political impacts of various phenomena become clearest through assembling detailed stories of what is occurring during the process of change (Flyvbjerg, 2001). This research has been conducted during the introduction of CEWs in Australia and documents an ever changing field of evidence about CEWs in Australian policing practice. It uses the introduction and use of OC spray and the development and adoption of CEWs in the USA to provide a background and context to the patterns that have emerged in the first decade of CEW use in Australia, which forms the central focus of the analysis. In providing this account, a range of material has been examined. The first are artefacts that capture the original rationales supplied by police and government throughout the first phases of CEW introduction, largely found in statements made in the media but also through an examination of relevant Coronial findings. Next, police CEW policies and operational procedures are examined (where accessible) in order to establish the degree to which they reflect the rationales as originally stated. Finally, and most crucially, CEW practice in each state is examined, using both available statistics and case studies.

There is now a large body of scholarship addressing the relationship and impact of technology on social control generally, but more developed assessments of sublethal weapons' impact on policing and its practice are only beginning to emerge. This is especially true in relation to CEWs; while a small body of critical literature exists there has so far been none focusing specifically on the Australian experience (Wright, 2002; Rappert, 2002, 2003, 2007; Kleinig, 2007). The international research that has been carried out so far has been overwhelmingly medical, or of a quantitative nature, while Australian material consists almost entirely of government and internal police reviews. There is a clear need for independent, critical analysis and this research hopes to provide a foundation for future scholarship in this area by providing the first analysis of CEW policy and use in Australian policing. It documents the first decade of their use in that country and draws conclusions about the impact of sublethal weapons use in Australia on the police mandate to use only

minimum force. Its conclusion also presents an argument for the importance of the development of National Guidelines for sublethal weapons, especially CEWs, and a range of suggestions about what such guidelines should include.

HOPE, AWE AND FEAR

The extent to which police ought to rely on weapons for the enforcement of law and maintenance of order has been an important criminological issue since the 1960s, as has the extent to which police ought to be used as agents of political control. At this time, a conflation of events made the indiscriminate, violent use of weapons highly visible and publicised, primarily in the United States but also in Australia (Skolnick, 1975; York, 1987). This occurred on a larger scale than was previously the case (in the context of civil rights and anti-war organized protests) and was also televised. Not only was police violence now captured on film, but it was often directed against the children of those who had traditionally been policing's greatest ally, the 'middle class' (Skolnick, 1975; Finnane, 1994; Edwards, 1999). This period represents a significant moment in the relationship between police and the middle class citizenry, their traditional supporters, which resulted in an unprecedented public questioning of policing methods. There began significant academic inquiry into the use of force by police in democracies and this work forms a part of the unfolding examination of what might ultimately be viewed as the modern policing experiment.

Modern policing has been a significant vehicle of social control for a very few years when compared to courts, parliaments and prisons. Certainly, it has evolved from many early, unregulated attempts to capture and detect offenders and represents some significant improvements upon these attempts. Nonetheless, the state sanctioned, modern, democratic institution of policing deserves close and continuous analysis, especially its enormous capacity to wield force, a function which has often been identified as the *raison d'être* of policing (Bittner, 1990). The introduction of sublethal weapons has expanded this capacity enormously, the implications of which are not yet fully understood. As Rappert (1999) argues:

Advanced policing technology evokes hopes about deterring undesirable social behaviour through swift and responsive action, awe at the capabilities of modern technology, and fear of a radical curtailment of civil liberties (Rappert, 1999: 749).

Hope, awe and fear are all very evident in debates about sublethal weapons. It is clear that the main thrust behind their introduction is that they are less likely to cause death than firearms and can also 'take a person down' while hardly leaving a mark on the body. That CEWs are less likely to kill than firearms is almost certainly true. Death rates from firearms can be broadly estimated at between 40% and 60%, whereas approximately six to seven hundred deaths have followed the use of CEWs in North America since the early 1980s, following over a million deployments, representing less than 1% (Roy, 2004). Less clear, and perhaps more important, is whether or not sublethal weapons succeed in decreasing

the rates of firearms use by police. Little evidence exists to address this question, although what is available suggests that sublethal weapons use has little impact on the rates of firearm use in policing. Early research showed that a range of sublethal options did not reduce firearms use (Bailey, 1996). More recently, a US study of CEWs specifically found a sharp increase in firearms related police homicides in the first year of their use across several American jurisdictions (Lee, Vittinghoff, Whiteman, Park, Lau and Tseng, 2009). Firearms use also increased in Western Australia between 2007 and 2009, the period immediately following CEW introduction in that state. The rate of use of firearms doubled, rising from 6% of all uses of force by police in that state to 12% (Corruption and Crime Commission, 2010). This evidence suggests that there is no decrease in rates of firearm use by police resulting from the introduction of CEWs and calls into question the frequent publicly stated claim that this can be achieved.

In terms of the evidence of deaths following the use of CEWs, there have so far been six CEW 'proximate' deaths in Australia between 2002 and 2011 each of which is discussed in further detail in Chapter Five⁷. It is not yet possible to draw established, causal links between these deaths and sublethal weapons use. A controversial medical condition known as 'Excited Delirium' has been prominent in debates about deaths proximate to sublethal weapons and has been fiercely promulgated by CEW manufacturers as the real cause. Others doubt the validity of this argument, preferring the explanation that such deaths occur largely because sublethal weapons are most often used against subgroups for whom use is most likely to be harmful (principally mentally unwell people and drug users). These groups have been clearly identified as vulnerable in the literature and also in police policy, along with children, pregnant woman, elderly people and those with pre-existing heart conditions (Mukasey, Sedgwick and Hagy, 2008). There is clear evidence emerging around the inappropriateness of CEW use against such vulnerable populations which is considered in more depth in Chapter Two.

In the last decade, a substantial body of medical research has been produced that supports the safety of sublethal weapons (Vilke and Chan, 2007; Kroll, 2008; Kroll and Ho, 2009). There is also a large body of critical literature that has emerged around their use, produced mainly by non-government organizations, but also by police watchdogs and government inquiries, showing clearly identifiable trends towards overuse and specific circumstances that are more likely to result in death (Amnesty international, 2007; Amnesty International, 2008; British Columbia, 2009; WA Corruption and Crime Commission, 2010). Evidence about the potential dangers of sublethal weapons has been emerging for over twenty years

⁷ As mentioned in an earlier footnote, there have now been seven CEW proximate deaths. Five of these occurred directly after deployment.

(Koscove, 1985; Allen, 1992; ACLU, 1995; Bailey, 1996; Doubet, 1997; Ranson, 1994; Amnesty, 2007; Amnesty, 2008; British Columbia, 2009; Federation of Community Legal Centres, 2010). The accumulated evidence strongly suggests that sublethal weapons are especially limited in their efficacy and particularly dangerous when police interact with mentally ill or chemically intoxicated people. Issues arising include death and injuries resulting from their use and also unsuccessful deployment leading to officer or suspect injury or death. These issues are observably obscured in the picture of CEWs that has been presented to the public; the thesis will critically analyse the mechanics of this process as it has occurred in Australia with the intention, in part, to provide a document for future reference.

KEY EXPLANATORY CONCEPTS

To make sense of the large and contradictory body of knowledge around sublethal weapons, this analysis draws on three key explanatory concepts. In the absence of established knowledge of their safety margins and impacts on policing practice, the meteoric rise of CEWs from experimental technology to almost universal adoption can be understood partly as a function of what Corbett and Marx (1991) call '*technofallacies*', prematurely formed and often misguided beliefs about the capacity of technology to solve social problems. In mounting a strong critique of technology and advocating the importance of constant evaluation and oversight, Corbett and Marx identify ten technofallacies: the fallacy of explicit agendas, the fallacy of novelty, the fallacy of intuitive appeal, the fallacy of the free lunch, the fallacy of quantification, the fallacy of ignoring the recent past, the fallacy of technical neutrality, the fallacy of a failsafe system, the fallacy of the sure shot and the fallacy of assuming that critics who oppose the means must oppose the ends. Some of these are more relevant to the use of sublethal weapons than others, as will be illustrated in later analysis chapters.

In addition, Becker's '*hierarchies of credibility*' (1967) demonstrates how some have more power to establish 'the facts' than others. This helps to explain why the claim often made by Taser International (the world's major CEW manufacturer) that their product has never been linked to a death can be sustained, despite pathologists expressing serious doubts about CEW safety as early as 1992 (see Allen, 1992). The issue of causality is unresolved and yet there is a dominant rhetoric around Taser International's product suggesting that any person who links a CEW to a death does not understand the principles of electricity (see Kroll, 2008). In seeking to unpack these arguments, this research has drawn on the work of cyber-activists who have created blog sites devoted to the discussion of CEWs (see especially TruthNotTasers.com and excited-delirium.com). These sites have opened up space for a broader dialogue about the safety of CEWs. In challenging the existing hierarchy of knowledge and expertise, they provide a site for open information sharing which have been invaluable during this research.

The rapid adoption of sublethal weapons can also be explained as a product of the *militarisation of policing*, which has increased the general reliance on force and weaponry as 'legitimate' policing business (Hillyard and Percy-Smith, 1988; Jefferson, 1990; Kraska and Kappeler, 1997; McCulloch, 2001; Kraska, 2007). The militarization of police is a global phenomenon, involving the transference of military armaments, training and strategies to domestic police, usually via cross germination from specialist squads to general duties officers. The result, arguably, has been the normalization of use of force in policing and a gradual loss of emphasis on the use of minimum force.

This process of 'tooling up' police has been criticized for taking policing away from peacekeeping functions. The introduction of sublethal weapons is part of this process, encouraging the trend in policing, observed by Manning (2009), between emphasising quick and efficient law enforcement over more time-consuming service oriented strategies. This trend is arguably related as much to what is expected of police by the public as it is to the globalised trend towards the proliferation of technology. As Rappert argues "The myth that a policing "solution" exists to questions of social order is reinforced by the belief that a technological solution exists to policing problems' (Rappert, 2002: 705). This illustrates the simultaneous top-down, bottom up pressures that have brought sublethal weapons into policing in the absence of any real sense of what they might mean for the practice of policing. But there is evidence to suggest that the presence of weapons of any kind can work to increase public non-compliance with police, to 'up the ante' so to speak (Hawkins and Ward, 1970; Sarre, 1993, 1996; McCulloch, 2001). Such research findings explain why it is important to explore the unintended (or simply unforeseen) consequences of any kind of broader weapons deployment.

Combined with cultural forces, such as a sense of mission and an urge for action, these key concepts can be conceived of as drivers towards the adoption and increasing use of sublethal weapons. This research ultimately aims to provide a holistic portrayal of the dynamics and context of CEW use in Australia in an effort to add to our understanding of the impacts of sublethal weapons in policing more generally. There has been little scholarly attention paid to this important aspect of police practice and its wider effects on Australian society and this research aims to go at least some of the way towards filling the gaps in our knowledge by providing a broader understanding of the important implications that sublethal weapons use may have for vulnerable communities specifically and also more generally for the broader population.

OC sprays are only briefly considered in the background chapters of the thesis as this offers a way to begin to observe patterns on which to build our knowledge. OC sprays, after all, offered the same 'non-lethal' promise as the CEW when first introduced. Operational limitations of the spray have, at least in part, led to the introduction of a new, improved technological solution, the CEW. But the evidence suggests that many of the problems stemming from OC use are already being replicated as CEWs are rolled out across the country. Mission creep, misuse, accidental deployments and disproportionate use against

vulnerable groups are all evident. In broadening our understanding of the impact of weapons technologies on police use of force, a field where ‘critical inquiry and humility are as necessary as innovation and experimentation’, this research investigates the circumstances and manner in which CEWs are being deployed by police in Australia and explores the broader implications this might have for policing in Australia (Marx 2007: 55). This is undertaken with the aim of providing a better understanding of whether sublethal weapons help to uphold the principle of minimum force in Australian policing or whether they might serve to undermine it. If they have frequently been used to prevent firearms use, then it can safely be argued that sublethal weapons have enhanced the police mandate to use only minimum force. On the other hand, if their use reflects deployment patterns that are wider than firearms, then the mandate is undermined. There is little doubt that sublethal weapons have been presented to the public as a kind of Philosopher’s Stone, bearing the golden promise of reductions in deaths and injuries of both police and citizens. But it may be the analogy of Pandora’s Box that proves more accurate.

KEY RESEARCH QUESTIONS

As discussed above, the introduction of CEWs has been framed, in the public debate at least, around their capacity to help avoid the use of firearms. This rationale is reflected in many public statements made by police and is often implicit in public perceptions of the weapons’ utility, as this thesis will demonstrate. Thus, examining the way that this rationale is reflected in policy and practice is the focus of inquiry in this thesis.

Six key research questions form the focus of this thesis. They are:

1. What were the stated rationales for the introduction of CEWs?
2. What are the police policies governing their use?
3. Are the policies consistent with the rationales for introducing the weapon?
4. Is there evidence of weapons being used outside of policy?
5. Is there evidence that the weapons are being used disproportionately against vulnerable groups?
6. What are the implications of CEWs for police accountability?

Exploring these questions will assist in building our understanding of the key notion of ‘mission creep’, which is becoming recognised as a key risk associated with most types of sublethal weapons. For those concerned with maintaining democratic models of policing this will be a key issue to be addressed in the future if the proliferation of sublethal weapons continues at the current rate.

CHAPTER OUTLINE

The thesis is structured in a way that situates contemporary events in the context of broader international experiences. Chapter One explains the research design and methods deployed to answer the research questions. It outlines in detail the data used to construct this Australian case study. The chapter explains the thesis’ phronetic methodology, inspired

by Flyvbjerg (2001) in greater detail. It emphasises that this research is pioneering the use of phronetic research in the discipline of criminology. This is done in the hope that the work might be used in future by others in attempting to build our understanding of the social impacts of sublethal weapons.

Chapter Two presents an overview of the slowly evolving knowledge that was accumulated about the safety and utility of CEWs beginning with a discussion of the difficulties encountered with settling on a name for the kinds of weapons being analysed in the thesis. It then situates knowledge about sublethal weapons within broader scholarly analysis of the use of force before moving on to present a history of the development and proliferation of CEWs into policing in the USA. It argues that certain orthodoxies have been built around CEWs in order to support their acceptance. Such orthodoxy has become difficult to challenge. In building this argument, Chapter Two also presents a brief discussion of OC spray development, introduction and use in Australia which is linked to the more detailed discussion of the history, use and impact of CEWs internationally. It concludes by presenting recent data on CEW 'proximate' deaths in North America.

Chapter Three presents an overview of the empirical research in relation to CEWs, demonstrating a blurring between marketing and research. It argues that by the time CEWs were introduced in Australia, there were clear indications that certain methods of deployment were more closely linked to fatal outcomes than others (principally multiple and prolonged deployment) and that such knowledge was not reflected in Australian policy sufficiently, resulting in fatal outcomes which may have been avoided had policy makers been more aware of the potential dangers.

These chapters are then followed by four chapters that together analyse the case study from which the thesis' conclusions emerge: the Australian experience of CEWs from introduction to outcomes so far (1999-2011). Chapter Four examines in detail the rhetoric used in Australia to sell CEWs to Australian police and also the broader public. It also discusses the broader political context of CEW introduction in each state and territory. Chapter Five discusses the emerging and related issue of the potential of sublethal weapons to impact on the theory and methods around use of force in police training and policy, with a specific focus on emerging critiques of the use of force continuum. It makes the argument that the use of sublethal weapons subverts common understandings of reasonableness and proportionality.

Chapter Six presents a comparative analysis of available Australian CEW policies. It considers the advice provided to operational police regarding pre-deployment, deployment and post-deployment considerations. Chapter Seven then examines significant events in each state in detail. It documents each death that has occurred to date and other prominent non-fatal events. It also documents examples of the weapons' use outside guidelines and the events that flow from such uses. The chapter concludes with an argument that national

guidelines for CEWs should be established as a matter of urgency. A model for such guidelines is presented in Appendix Six (p.216).

The thesis concludes by showing how the themes that emerge fit in the international context, supporting a number of important conclusions regarding the impacts of poor CEW regulation. The data is drawn back to the key research questions to highlight concerns surrounding the deployment of CEWs as general issue weapons. Finally, a research agenda for future study of sublethal weapons use by police in Australia is presented.

This thesis represents the first scholarly account and analysis of the proliferation CEWs in Australia. Through its focus on CEWs, it draws attention to patterns emerging from the use of sublethal weapons generally. It shows that international events have been replicated here and that Australian policies controlling CEW use, which were initially inadequate, have subsequently undergone significant, reactive tightening in response to controversial events. A hierarchy of credibility has worked to facilitate the production of policies built on knowledge that is incomplete and unreliable. This unreliability stems from the fact that the orthodox accounts of CEWs have consistently served the interests of the weapons' manufacturer above and beyond the interests of people who are vulnerable to their use, beyond the interests of police and, more importantly beyond the interests of democratic policing.

CHAPTER ONE: RESEARCH DESIGN - AN EMBLEMATIC CASE STUDY

Entering the everyday travail of the research process I encountered a multi-coloured, multi-textured, mind-altering river that stretched ahead of me, seemingly without direction or end. The waters engulfed me and tossed me about until the rational became the irrational, the clean and ordered became dirty and disordered, and what I knew became what I no longer knew or could take for granted (Adams, 2000: 385).

The research conundrum recounted so honestly above captures perfectly the initial stages of this research project. During the present study, it was necessary to map out a hotly contested, highly political and very broad terrain. While this is a common feature of criminological research, and policing research especially, the large volume of pre-existing 'knowledge' about CEWs nonetheless presented significant challenges during the early stages of the project. The methodological approach taken in this project was 'pragmatic' and evolved as the data accumulated, making it largely inductive in its nature rather than deductive (Hoyle, 2000: 397). Inductive research allows knowledge to emerge from data that captures intimate, localized knowledge of a phenomenon, whereas the deductive approach tests a specific hypothesis on the basis of theoretical knowledge (Hagan, 2006).

To take a deductive approach to the material with which this thesis engages would involve employing a method that attempted to mimic the natural sciences, which would arguably have limited value in the fluid political environments engaged with here. For this reason, an organic, phronetically based approach was preferred as explained briefly in the introduction and in more detail below.

RESEARCH FRAMEWORK

This research follows Flyvbjerg's innovative phronetic methodology which uses the Aristotelian concept of 'phronesis' to inform research strategies in the social sciences, emphasising the importance of case study based research for producing social knowledge (Flyvbjerg 2001, 2006). Aristotle used the term 'phronesis' to describe the notion of practical wisdom or problem solving skills, distinguished from 'episteme' (the discovery of universal truth) and 'techne' (the production of technical knowledge) (Flyvbjerg, 2001). As such, phronetic research is directed towards action and involvement; toward changing outcomes in specific locations. Entering the field with this approach fits well within critical criminology, which has a long tradition of questioning institutional power and working towards changing systems (Scruton, 2002).

Flyvbjerg, a Danish town planner and prominent academic now at Oxford University, cautions against traditional social science research methods, arguing that useful social science research *cannot* be based on methods adapted from natural sciences largely because of the constant fluidity of the knowledge/power relationship in social relations (Flyvbjerg 2001). The production of knowledge about society must, by nature, be built *ex post facto* and the case study provides a very useful mechanism for building such knowledge. In many ways, case studies provide the *only* mechanism that can provide defensible 'counter-knowledge' that can be used to interrogate orthodoxies. This capacity is especially important in researching policing. Further, the phronetic approach emphasizes the power of social science research to have impact, to matter; what Scraton terms 'critical analysis as resistance' (Scraton, 2002: 30).

Scraton argues for the importance of critical research in 'resisting political and ideological imperatives of official discourse, state-sponsored evaluations of official policy initiatives' (Scraton, 2002: 35). Following this tradition, the research design adopted in this thesis centres on the construction of a grounded case-study. Although sometimes denigrated as unscientific, subjective and ungeneralisable, the case study as a main methodology has undergone significant practical and theoretical development in recent times, and its potential to provide an essential source of social science knowledge is now as widely recognized as it has historically been utilised (Flyvbjerg, 2006; for examples see Sutherland and Conwell, 1937; Harding, 1970; Cohen, 1972; Scraton, 1985; Chappell and Graham, 1985; Carrington, 1998; McCulloch, 2001; Carlton, 2007). The case-study method is viewed as central for meaningful social science research outcomes and is central to the phronetic method (Flyvbjerg, 2006; 2011). Flyvbjerg argues persuasively that the case study must be rescued from 'the methodological limbo in which (it) has existed for too long' (Flyvbjerg, 2011: 315).

The 'emblematic' case under analysis here is the Australian experience of CEWs. This is intended to provide a test of the particular hierarchies of credibility, technofallacies and paramilitaristic philosophies that circulate around sublethal weapons and use of force by police. Only when a large body of localised knowledge has been accumulated from many jurisdictions can we begin to build certainty about the universal impacts of CEWS and sublethal weapons more generally. Accordingly, the core concern of the present study is to examine the potential of sublethal weapons to advance or undermine the police mandate to use only minimum force in an Australian context. Flyvbjerg (2006) carefully explains the relevance and importance of 'context-dependant' knowledge as a vital exemplar of broader theoretical observations. He argues that:

There does not and probably cannot exist predictive theory in social science. Social science has not succeeded in producing general, context-independent theory and, thus, has in the final instance nothing else to offer than concrete, context-dependent knowledge. And the case study is especially well suited to produce this knowledge (Flyvbjerg, 2006:223).

Flyvbjerg argues that the systematic production of exemplars is essential for the production of meaningful, rigorous and impactful social science (Flyvbjerg, 2001; 2006; 2011). In this sense, all knowledge of social phenomena is built on the construction and linking of case studies; such knowledge provides a powerful counterpoint to official discourse and other knowledge produced within capitalist neo-liberal contexts. The study design was invoked in order to produce a rich, contextually bound examination of CEW use in Australia.

The research process for this thesis began with a broad survey of prominent scholarly observations on the police use of force. It then moved more deeply into research that was specific to sub-lethal weapons that was generated from sources almost exclusively outside Australia (primarily USA and Canada). Much of the available material was scientific or medically based research, but a small proportion existed that was dedicated to the impact of sublethal weapons on the practice of policing itself. The analysis then narrowed to consider the research addressing CEWs specifically and went on to develop the introduction and early patterns of use of CEWs in Australia as a case study to form the major component of the thesis (see Figure 1).

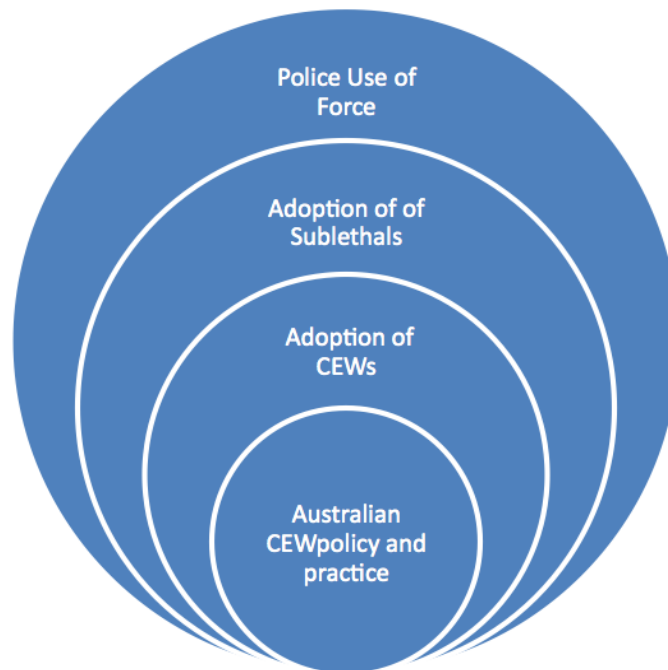


Figure 1: The Case Study in Context

CONSTRUCTING THE CASE STUDY

Constructing the case study required the triangulation of the qualitative data gathered and a fluid analytical approach that allowed key themes to emerge. This challenging and necessarily innovative design required careful attention to detail and a great deal of data synthesis. It also meant that the gathering of data and its analysis became a simultaneous and prolonged process, requiring much drafting and redrafting of the research questions in the first year of the project, and of the findings in the last. All observations and conclusions had to be reworked and reconsidered right up until very late in the research process in order to maximize the field of observation (from 4 March, 2008-2 September 2011).

The analysis of the Australian experience focused on four key sites: the rationales for introduction, police guidelines and policies, operational outcomes and accountability processes. This was intended to contribute to the dearth of knowledge around the sociological impacts of sublethal weapons, knowledge which arguably can only be built through the accumulation of precise details, captured in a specific location and time.

The study employed a triangulated qualitative analysis of data drawn from media reporting of CEW use, police policies on CEW use, selected Coronial findings and semi-structured interviews. A mixed method approach of media, documentary, paradigmatic case study and narrative analysis are used. This data set is admittedly very broad, but as Hagan reasons, “the larger the number of independent sources that say the same thing, the greater the confidence attached to the findings” (Hagan, 2006: 296). This approach was necessary because of the highly contested nature of the debate around CEW use by police.

Data Source	Number
International Media (print, television, blogs, radio)	Over 200
Australian public comment (letters to the editor, online comments)	Over 100
Official Australian reports	10
Independent Australian reports	1
Australian Coronial Findings	9
Australian Police policies	6
Interviews	7

Table 1: Data Sources by category and quantity

As mentioned, the first step in the research process involved a close reading of the existing medical, scientific and social science literature on CEWs. This literature is summarized in chapters Two and Three. This process provided important insights into some of the key concerns flowing from the introduction of sublethal weapons and into the almost

intractable nature of the debate about their potential to cause serious harm. A set of questions was then built on this broader knowledge of the international experience of CEW use, all focused on how police in Australia have negotiated this contested terrain in terms of the construction of policy in their individual jurisdictions and also what the measurable outcomes have been. The research has been designed in an effort to avoid over-reliance on reports and statistics produced by police or government bodies in building the picture of CEW use.

This analysis was organized around seven key research questions, outlined in the introductory chapter of this thesis. Figure 2 (overleaf) shows the relationships between the data, the research questions and the key points of analysis. Each of the questions is linked to one of the four focal points for analysis and work together to create a rich descriptive picture of the first decade of CEW use in Australia.



Figure 2: Research Overview

Following the close reading of available knowledge, drawn from largely international perspectives, the research necessitated an examination of local experiences through media and available government sources. A comparative examination of Australian police policies was also undertaken. The next step was then to locate specific events that exemplified the key themes that began to emerge. These observations were tested by seeking out the perspectives of interview participants who were all living and breathing the experience of CEW use in Australia, from a range of points of view. Participants included the weapons' distributor, a police union representative, community lawyers, police regulators and mental health professionals. People who have been directly impacted by CEWs were not included in the interview sample, however, for reasons explained in the section entitled 'Limitations' below (see p. 40).

LOCATING AND ACCESSING THE DATA

A triangulated methodology allows researchers to capture qualitative and quantitative information and facilitates a greater level of validity and reliability to be attached to findings (Denzin, 1978; Gilbert, 1995; Hagan, 2006). This 'multi-pronged strategy' is especially useful when undertaking social research, which can never be successfully done on the basis of information produced by government institutions alone (Layder, 1998). Multiple sources are also essential for the construction of a meaningful case study (Gillham, 2000). A triangulated approach is intended to minimise overly subjective interpretation of the data and to maximize the range of information and perspectives analysed. This approach allowed key themes in the debate about sublethal weapons to emerge from a wide range of sources. Triangulation is technically a military term, referring to the use of 'multiple reference points to locate an object's exact position' (Jick, 1979: 602). By converging and comparing data reflecting a range of perspectives on sublethal weapons, the validity of the findings is reinforced, although not entirely assured, as discussed under the heading 'Limitations' below. Data triangulation was nonetheless required for this research for reasons that are succinctly captured by Carolyn Hoyle (2000):

Whilst each discrete data set provides a unique perspective and therefore can be considered in isolation from the others, two (or more) sets of data on the same situation permits one to explore the relationship of 'accounts' to what people are actually observed to be doing, thereby generating a further account in relation to data already gathered (Hoyle, 2000: 398).

In summary, the sources of data in this project were:

- Operational police policies and standard operating procedures from six Australian jurisdictions (AFP, WA, NSW, Qld., Vic. and NT)
- Government reports, evaluations and inquiries, specifically:

- The New South Wales Ombudsman's *The use of Taser weapons by New South Wales Police Force: A special report to Parliament under section 31 of the Ombudsman Act 1974* (2008)
- The Queensland Police and Crime and Misconduct Commission's *Review of the Queensland Police Service Taser Trial* (2008)
- The Queensland Crime and Misconduct Commission's *Review of Taser Policy, Training, Monitoring and Review Practices* (2009)
- Crime and Misconduct Commission's *Evaluating Taser Reforms: A Review of Queensland Police Service policy and practice* (2011)
- The Northern Territory Police's *Review of TASER within the Northern Territory Police Force* (2009)
- Victoria's Office of Police Integrity *Review of the Use of Force By and Against Victoria Police*(2009)
- The Western Australia Corruption and Crime Commission's *Use of Taser® Weapons by Western Australia Police* (2010)
- Victoria Police's *Conducted Energy Device Pilot Project Interim Evaluation* (2011)
- The Office of Police Integrity *Review of the Use of Force by and against Victorian police* (2009)
- ACT Deputy Chief Police Officer *Report on the Use within ACT Policing of the Taser X26* (2010)
- Coronial inquests into the deaths of seven men and two boys, specifically:
 - Roni Levi (NSW)
 - John McConnell (Vic)
 - Michael Eddy (QLD)
 - Benjamin Basford (QLD)
 - Mark Conway (WA)
 - Andrew Bornen (QLD)

- Adam Salter (NSW)
- Gottlieb Rubuntja (NT)
- Tyler Cassidy (Vic)
- One independent report:
 - The Victorian Federation of Community Legal Centre's *Taser Trap: Is Victoria Falling For It?* (2010)
- Over 200 media reports (print, television and radio) and associated commentary (from Dec 2000 – Dec 2011)
- Over 100 letters to the editor and web-based discussion in response to articles (from Dec 2000 – Dec 2010)
- A set of seven in-depth interviews with relevant stakeholders including a weapons distributor, a Police Association of Victoria representative, a representative from the Office of Police Integrity, two community lawyers and two mental health professionals.

Each data source carried inherent advantages and disadvantages, which are discussed below. In combination, however, they each played an important role in the construction of a detailed and reflexive picture of the widespread adoption of CEWs in Australia and its potential consequences. It was necessary to be more selective in some categories than others in choosing material to be included in creating the analysis of CEW introduction and use presented here. For example, while every available Australian report, evaluation and inquiry has been included in the analysis, not every media article has been sourced. The following section provides more detail on the methodological approach to data gathering in relation to each data set drawn on during the analysis presented in the chapters that follow.

OPERATIONAL POLICE POLICIES

The process of obtaining police policies (termed 'standard operating procedures' in most jurisdictions) commenced in June 2008 with a search for policies that were already publicly available. It was found that both QLD and WA had made versions of their policies available to the public and these were not difficult to access. The QLD draft policy, in the form of a Commissioner's Circular was published on the internet by October 2008 following the release of surveillance camera footage of two separate incidents showing police using a CEW against a young girl and a man emerging from a nightclub and in the context of review of the trial period being conducted by Queensland Police Service and the Crime and Misconduct Commission (CMC).

Networking with interest groups facilitated access to the earlier version of WA's policy, which was included in the WA Police Manual (an abridged public version, in January 2009).

This was accessed by Legal Aid Western Australia for the Victorian Federation of Community Legal Centres (VFCLC), who provided it to the researcher. A revised version was tabled in Parliament in March 2011 and made electronically available to the public. Information about NSW policy was initially taken largely from the November 2008 Ombudsman's report. In February 2011, the Standard Operating Procedures were made electronically accessible on the NSW Police website.

NT Police agreed to supply the researcher with a copy of their policy evaluation, as well as access to their updated operational policy. They also provided a copy of their original policy upon request, reflecting a high degree of transparency. Policies from all other jurisdictions had to be obtained via Freedom of Information (FOI). This is not an unusual experience in the field of critical policing research where access to official documents or policy is a frequent barrier (Reiner, 2000). Freedom of Information applications were made in Victoria, South Australia, Tasmania and to the Australian Federal Police (AFP).

In Victoria, the researcher was fortunate to be able to collaborate with the VFCLC in requesting access to the Victoria Police Standard Operating Procedures for Tasers. This 'action research', an approach explained further below, arose from attendance at several CEW focused seminars that were run by the VFCLC and by attending meetings of the VFCLC Police Issues Working Group. The researcher worked closely with advocates who were preparing a report for the VFCLC on CEWs (referred to above) but was not involved in their data analysis or writing of the report (hence its inclusion as part of the data set in this thesis). During this process, which was invaluable in terms of accessing a specialist police policy from an Australian jurisdiction (VicPol's SOG policy), a witness statement was prepared by the researcher for the VFCLC in a FOI request to VicPol. This statement argued that since operational procedures around CEW use from international jurisdictions were widely available on the internet, along with product warnings available through Taser International's own website, there was little concern that police operations would be undermined by the disclosure of operational CEW policy.

The VFCLC enlisted the pro bono services of an independent law firm and this facilitated a campaign to access policies which, it was believed, ought to be available to the public and should also be available for the purpose of independent analysis. The request was initially rejected by VicPol, although eventually access was gained to incident records (heavily censored) from both the Special Operations Group and the Force Response Unit from February 2004 to May 2008. The policy proved harder to get however and a hearing was scheduled in the Victorian Civil Appeals Tribunal for June 2009. This hearing was adjourned several times, until eventually police surrendered their policies. They have since provided access to the Procedures for the Taser trial that commenced in July 2010.

There was less success in South Australia, where the SAP response to the FOI request cited 14 different clauses of the SA Freedom of Information Act as reasons why access was denied. In short, it was argued that the public interest outweighed the researcher's interest

in the information. As a lone applicant in requesting access to the documents, this outcome was not surprising. The reasons argued were very similar to those initially argued by Vic Pol but this was still a disappointing outcome as the study aims to provide a national case study. Further the model in SA is to carry weapons within vehicles rather than as a sidearm. This is in contrast to all other states and as such would provide a valuable point of comparison. This made it necessary to lodge an appeal in an effort to provide a truly national comparative study. The public interest grounds presented by police in refusing the initial application are unconvincing in that many other states have made their policies public, especially those who have moved towards issuing CEWs beyond specialist policing units. This is also the case in overseas jurisdictions. The decision to reject the request was formally appealed and reviewed, but was again rejected. This has meant that SA has not been included in the policy analysis presented in Chapter Six, although relevant events in that state have still been subject to analysis and examination.

Informal requests, via email, were initially made to Tasmania Police, who did release their OC Spray policy to the researcher, expressing interest in the research findings. Access to CEW Operating Procedures was denied, however, as the weapons are confined to SOG police and it was argued that it could not be released for operational reasons. Following this, a formal Application for Assessed Disclosure (the Tasmanian term for an FOI) was made, but also rejected. The next step was an appeal to the Ombudsman's office, which was not possible within the project timeframe. Again, while the policy is not included in the tables in Chapter Six, events in Tasmania have nonetheless been subject to examination.

GOVERNMENT REPORTS, EVALUATIONS AND CORONIAL FINDINGS

The internet proved to be a key research tool in this project, allowing access to a huge array of resources that would otherwise have been difficult to obtain. These included the findings of various international commissions of inquiry from the United States, Canada, New Zealand and Britain. The reports sometimes examined specific incidents and other times the use of CEWs more broadly and provided a great deal of insight into the tensions and problems surrounding CEW use. These findings and recommendations were used to establish the background for the Australian case study and also to shape the research questions.

The large majority of the official material used in the analysis was accessed via the internet and emerged progressively throughout the study period. This level of accessibility was unsurprising, given that theoretical perspectives adopted here suggest that the purpose of official reports, evaluations and inquiries is 'to provide a veneer of democratic process'(Rolston and Scraton, 2005; 558). Certainly, some reports provide more robust critical analysis than others but it is difficult to argue that these reports universally represent the 'whitewashing' of the problem. There is, in fact, a discernibly high level of public accessibility to these documents – even those that were overtly critical of police (see

for example British Columbia, 2009). This made them a rich source of material for background analysis.

Australian reports, used to construct the case study, were also accessed this way and were generally readily accessible, apart from reports conducted 'in-house' by police. In the NT, these were provided on request and in Victoria access was gained to a number of these research reports through collaboration with the VFCLC.

Locating relevant Australian Coronial inquests involved both keeping a close eye on media reports (this process is described below) and frequently visiting the websites that are maintained across Australia in each jurisdiction to keep abreast of relevant cases (those where sublethal weapons have been either deployed or referred to in the Coroner's recommendations). Coronial findings were accessible electronically in all Australian states where people have died following CEW use (and where Inquests had been completed) with the notable exception of WA, whose website remained 'under construction' for the entire three years of this research process. In that state, findings must be applied for in writing and are made available at the discretion of the Coroner. The single WA coronial finding used in this study was supplied by the Western Australian Aboriginal Legal Service. Another from QLD involving the death of Benjamin Basford was unavailable on the website as the finding was handed down before 2004, before documents were made electronically available in that state. Access to this finding had to be formally requested, and then the finding purchased and sent by post.

Notably, significant variation was encountered in the accessibility, comprehensiveness and 'searchability' of each state Coroner's website, making it easier in some jurisdictions than others to locate relevant cases. For instance, Qld is the only state that provides keyword descriptors under each surname, although others do provide a search option.

This research relied upon Coronial findings rather than examining full transcripts⁸. Findings are far more accessible than transcripts, although the latter would yield a far deeper insight into the dynamics and decision making processes in each scenario considered. However, an in-depth analysis of Coronial transcripts was beyond what could be achieved within the parameters of this thesis, but would certainly be a welcome approach for future researchers because of the quality and richness of data that may emerge. In terms of understanding the rationales used by Coroners in reaching their conclusions, however, findings were sufficient for this purpose.

⁸ Information about the inquest findings in the Roni Levi case from NSW was obtained through secondary sources: Miller (2000) and Goodsir (2001).

Relatively few reports of an entirely independent nature exist in relation to CEWs, and those that have been compiled are accessible via the internet (Amnesty, 2007, 2008; Federation of Community Legal Centres, 2010; New York Civil Liberties Union, 2011). Only one of these has so far been compiled in Australia and is thus included in the current data set (Federation of Community Legal Centres, 2010).

MEDIA REPORTING AND COMMENTARY

This material was accessed primarily via the internet. These were located in two ways. The first was via the establishment of a 'google alert', a search tool offered by 'Google' which sends a link to a nominated email address each time the key search term appears in a posting on the world wide web. This results in an extremely comprehensive database of media reporting and public commentary on whatever issue is identified. Three terms 'Taser', 'stun gun' and 'capsicum spray' were set up as alerts, producing over 13,000 media reports over the course of the research. 'Google' was also used to locate transcripts of news reports appearing on Australian radio. The second method used was electronic media database searches (using Factiva and TVNews). Articles were purposively sampled on the basis of their relevance to the theoretical framework and research questions and also for their local relevance (Berg, 1989). Over 200 articles were included in the final sample.

The incidents chosen for discussion in the final chapter, addressing the outcomes of CEW introduction in Australia, were selected for inclusion in this research both for their prominence in the media and for their significance in relation to demonstrating documented (and therefore predictable) patterns of use and misuse. Together, they provide clear illustrations of the contested knowledge surrounding CEWs and highlight limitations of their use in diffusing situations and being alternatives to firearms. These stories have been constructed on the basis of multiple sources where possible, ranging from academic publications, media reports, official reports and Coronial findings.

The main incidents that are discussed are the death of Mark Conway in WA, the repeated use of a CEW against Kevin Spratt in the Perth Watchhouse and the McLeod/Butcher incident, also in WA which resulted in a police officer sustaining permanent injuries following a CEW deployment. A number of other incidents involving families are also discussed, concerning the Walkers, the Boords and the Stevens', all of whom were involved in altercations with police which ended up in court. Also discussed are a series of deaths in custody, from both firearms and CEWs. In particular, the deaths of Adam Salter in NSW, Andrew Bornen in QLD, Gottlieb Rubuntja in NT, Antonio Galeano in QLD and Thinh Ba Le in NSW are discussed.

Other prominent incidents involving CEWs will also be discussed, including two incidents involving burn injuries following CEW deployment, use against young people, pregnant women and drivers of vehicles. The incidents do not represent every controversial CEW use in Australia, but are used to assist in the construction of a fuller, alternative narrative about CEW use in the field.

INTERVIEWS WITH STAKEHOLDERS

Ethics approval for the interview process was granted in June 2008 and interviews commenced in 2009 and completed in early 2011. Since the research was qualitative in nature, it was not an aim to access a statistically representative sample, but rather to gain insight into the thoughts and experiences of key stakeholders in the area (Adams, 2000). Key stakeholders were identified as weapons distributors, police union representatives, community lawyers, police regulators and mental health professionals. Police were not included in this sample as it was considered from the outset that accessing police officers for interview would be extremely difficult and likely to cause excessive delays to the research process. In addition, police views on CEW use were quite easy to access in the media and also in organisational publications and journals (Reiner, 2000). The Police Association representative was chosen for interview in order to gain further insights into the perspectives of operational police without the need for formal organisational ethics clearance, which would have been likely to have unreasonably delayed the research with no direct benefit.

An initial research strategy involved an attempt to capture a sample, via snowballing, of ex or retired police who might share their broader views on the role of negotiation (rather than use of force) in the resolution of critical incidents. This approach was unsuccessful however, as the snowballing method came to a dead end and those that were interviewed felt that they were not in a good position to assess the utility of CEWS for operational members based on a lack of experience with or direct knowledge of the weapon. This method was abandoned in the early stages of the data gathering process.

All interviews were conducted in Victoria. Victoria has shown the most cautious approach to the introduction of CEWs (aside from Tasmania) and is a site of a dynamic debate about CEWs (see Singer, 2008; Federation of Community Legal Centres, 2010). In the early phase of this research, VicPol command rejected CEWs as an appropriate option but by the end of the study period, a limited trial was underway. Because of the dynamic nature of events in Victoria, it was considered that material gathered there was most likely to reflect the range of views on CEWs, from resisters and critics to supporters. The views of The Police Association in Victoria reflected those of an organisation still lobbying for CEWs. Additionally, the main CEW distributor was located in Melbourne. Another consideration was the unique experience of Victorians in regards to the excessive use of force by police following the Police Shootings Era (previously discussed in the Introduction). This experience brings several salient issues into sharp relief in the minds of many of the stakeholders in the Victorian context: the possibility of mission creep, the safety of the weapons along with issues of accountability. Participants were approached by letter and email. Two participants approached the researcher and offered to participate after hearing about the study in media reports (the weapon's distributor and a mental health worker).

METHODS OF DATA ANALYSIS

ACTION RESEARCH

Action research, by definition, involves the participation of the researcher with other activists and stakeholders in the investigation of a particular issue. This study, while not adopting a strictly action oriented approach, was nonetheless informed by interactions with a range of interested stakeholders, many of whom provided 'inside' information which would not otherwise have been available in the public domain. As mentioned above, collaborative efforts with the VFCLC facilitated access to Victorian police policies (and some usage statistics) and also resulted in an open dialogue that was extremely helpful in honing the research questions to ensure that the thesis findings could be of use to practitioners. This provided both a support base and access to material that might otherwise not have been included in this study.

In addition, during the course of the research, the researcher was contacted directly by several stakeholders wishing to either provide input into or derive some benefit from the research. These included both weapons distributors and relatives of people involved in CEW incidents with police. These discussions (and in some cases interviews) gave the researcher a great degree of personal insight into the issue of CEW introduction. In particular, an invitation was extended to attend a seminar presented by Taser International in Sydney in mid-2008. Attended mainly by police officers, the seminar was designed to provide information about current research and post-deployment forensic strategies for operational police. Speakers included prominent USA based medical researchers Dr. Jeffrey Ho and Dr Donald Dawes.

In the course of this research, the author also engaged with the media as one of the few people in the country with any detailed knowledge of CEWs. When incidents occurred, especially those involving deaths, various media outlets across the country contacted the researcher asking for comments. It was decided that it was appropriate to engage in this process because of the paucity of critical voices in the debate, which tended to be dominated by senior police and police union officials. The researcher participated in interviews on television and radio news on several occasions and was a guest on the national current affairs program *Insight*, where the issues were debated with senior police, the Taser® distributor, community lawyers and people who had been affected by CEWs. Such engagement with the field of study is considered key in phronetic research particularly because the aim of such research is to have an impact in the social world and to make social science research matter.

DOCUMENTARY CONTENT AND DISCOURSE ANALYSIS

In building the broader Australian case analysis, a strong emphasis was placed on the qualitative content analysis of documentary sources in this work. Documents are a valuable source of information as 'sedimentations of social practices' (May, 2001: 176). The official

documents included in the analysis were approached as social artefacts, attempting to 'stamp (their) authority on the social world' (May, 2001: 195). They were therefore read from a critical perspective seeking to examine how events were characterized and whose interests such characterisations reflect. As Kraska and Neuman (2008) have noted, when working with data compiled for bureaucratic purposes it is especially important to be mindful of the potential for bias. They argue that:

The researcher must be diligent in determining how the data was compiled, and what organizational and political factors might have skewed their construction, to avoid the error of naively assuming their validity and reliability (Kraska and Neuman, 2008: 332).

The documents analysed included official reports, independent reports, police policies, Coronial findings and media reports (along with online comments left by members of the public in response to these). The analysis was largely of the assumptions made and the concepts invoked in discussions of police use of CEWs. It sought to untangle and identify the implicit assumptions of authors and commentators.

Using latent content analytical techniques, involving identifying and codifying implicit assumptions, the official documents (reports and policies) were scrutinized for the presence of technofallacies, or implicit assumptions which rely on manufacturer generated information (Berg, 1989). They provided evidence for how CEW use (and safety) is presented to the public. This type of discourse analysis is bolstered by corroboration, so the evidence that emerged was triangulated against a similar analysis of the media material (Holsti, 1969 cited in Berg, 1989: 176). This is a fairly common methodology in police research due to the difficulties often associated with gaining access to internal police documents and also because media reports provide a useful way to gauge public perceptions of police and their activities (Kobler, 1975; McCulloch, 1996).

The content analysis of police policy presented in Chapter Six compares key policy items concerning pre-deployment, deployment and post-deployment. Pre-deployment items capture directives provided to officers about appropriate circumstances for CEW use. Deployment items capture prohibitions against use, directives on multiple deployments, targeting advice and other warnings, while the post-deployment items capture directives on aftercare, reporting, data management and oversight. Australian policies varied in detail. For example, Victoria's policy for the 2010-2011 Pilot was just 5 pages long, while in the Northern Territory the policy document comprises 56 pages. The items analysed were selected for their relevance based on a close working knowledge of the issues and concerns surrounding CEWs. Their temporal arrangement is one of many ways in which they could have been grouped and was adapted from the model used by the Braidwood Commission's 2009 analysis of Canadian CEW policy which includes almost one hundred pages of

tabulated data⁹. That approach has been simplified here into three tables, which appear in Chapter Six.

CONDUCTING AND CODING INTERVIEWS

Interviews were conducted in an in-depth manner which allowed appropriate questions to emerge from the conversation according to participant's knowledge and concerns. This facilitated the capacity to probe deeply into interviewee's fields of expertise and gain insight into how each participant made sense of the problems presented by the introduction of CEWs in Australia. As mentioned, participants were actively sought (or purposively sampled) on the basis of their having particular knowledge or specialist expertise in the area of CEWs use, distribution and oversight and also in mental health intervention. Mental health workers were included in the sample because the review of the literature and preliminary documentary analysis indicated that mental health crisis interventions form a significant portion of the incidents in which CEWs are used in Australia, a pattern which is also evident overseas).

Purposive sampling is often undertaken 'to ensure that certain types of individuals or persons displaying certain attributes are included in the study' (Berg, 1989: 179). The sample chosen reflected each identifiable voice in the Australian CEW debate – distributors, police, oversight bodies, community lawyers and mental health workers. This sampling method was most appropriate for this research, as explained by Greenwood and Levin (2007):

The local interested parties have a great deal of information (or access to such information) about what is going on and long experience with their situation. Action researchers actively seek out this knowledge as an element in the research process (Greenwood and Levin, 2007: 119).

Each interview was transcribed by the researcher and interviewees were de-identified in the final manuscript to protect confidentiality where possible. The interviews were used to provide background knowledge and also to test certain assumptions that were made during the phronetic research process. The material was not intended to form the basis of any precise conclusions or illustrate any generalizable conclusions. Rather, it was used to test the key themes and issues around CEWs that emerged from the literature review from a

⁹ The Braidwood Commission is a judicial inquiry into the death of Robert Dziekanski after multiple CEW deployments at Vancouver Airport, Canada in October, 2007. It produced a benchmark independent report on CEW use which has influenced police policies internationally. Officers involved in this event have recently been charged with perjury as a result of their testimony at the Inquiry (The Canadian Press, 2011).

variety of sources. It is difficult to imagine an area where certainty was more difficult to reach since so much conjecture surrounds CEW use. The purpose of the interviews was to filter the information emerging from other data sets that were observed during the research process.

LIMITATIONS

This research has been subject a number of limitations, linked to both its sources and analytical methods. In terms of data sources, CEW usage rates across Australian jurisdictions did not form a significant focus of the analysis undertaken in this thesis, although where available they did provide valuable insight into the issues considered. The statistical data that has been placed in the public realm in Australia is examined here in some detail, but this has been done through a critical lense, always approached with consideration for the context of its method of production. This was considered the appropriate approach because the quantitative data that exists in relation to the use of CEWs in Australia is both difficult to access and, more importantly, institutionally produced. As Kraska and Neuman (2008: 372) note, 'Statistics don't lie any more than guns kill. However, guns make it a lot easier to kill as do statistics make it easier to effectively lie'. The limitations of statistics and especially those compiled by police agencies (indeed all criminal justice institutions) have been soundly acknowledged by criminologists and other researchers (Reiner, 2000; May, 2001; Hagan, 2006; Kraska and Neuman, 2008). The hard data that is available in relation to the use of CEWs in Australia is included in the analysis, but it is always considered in conjunction with a broad range of other indicators.

Another limitation is that those cases that involved deaths in custody have been constructed on the basis of Coronial findings rather than full inquest transcripts. While transcripts would certainly have produced rich material for analysis, constraints on time and resources prevented this kind of in-depth examination. This method would have been especially useful in elucidating the views and experiences of those close to people who die following the use of CEWs, in the absence of interviews which were not conducted for reasons explained below, under the heading 'Ethics'. More research is sorely needed into the identified phenomena of 'speaking ill of the dead' or besmirching the reputation of people who die in police custody during Coronial proceedings, but this important domain is located outside the parameters of the present study (Scraton and Chadwick, 1986). Further, this research did not focus on how Coroners make sense of CEW related deaths in detail, but only to identify core assumptions, which could be accessed through Coronial findings. More focused content analysis of Coronial proceedings would nonetheless be a welcome addition to the knowledge base upon which the present work builds.

Further, the study makes use of a good deal of media material which is by nature highly politicized and sometimes provides inaccurate accounts of proceedings. In no case are the arguments supported solely by media accounts, and in all cases where information is presented as fact, it is referenced to multiple sources. While drawing on multiple and diffuse

data sets potentially provides for a more holistic view of the issues under examination, this approach does not necessarily ensure that data is completely valid and reliable (Hoyle, 2000). In this study, some data sets were more comprehensive than others. So while sources drawn upon for the documentary analysis were sources Australia wide, interview participants were all based in Victoria, for reasons already explained.

Finally, the analysis of case study based material has, as mentioned, been soundly criticized in the past. It is often argued that case studies do little other than expose a range of context bound observations that are unable to describe a phenomenon as a whole, and are rarely generalizable. Nonetheless, a growing body of critical research relying on this method demonstrates a strong capacity for critical analysis to develop through case study analysis. This is especially so for research directed at the nature of institutional power and its impacts in democratic societies (Scraton, 2002; Flyvbjerg , 2006). Case studies are valuable and work to increase broad understandings of social phenomena more successfully than any other available method (Flyvbjerg, 2001).

ETHICAL ISSUES

Due to the sensitive nature of this research, neither people who have been the target of police using CEWs, nor family members of those who have died after being subjected to CEWs in Australia were included in the interview participants. Participation in research can retraumatise people who are affected personally by criminal justice agencies, such as police and so there were significant concerns about the impact of involvement on this group, who would have to be asked to recount (and relive) their experiences. Such research would provide invaluable insight into the human costs of CEW use, but the risks involved for this group were considered to outweigh the possible benefits to the research. In many cases, these perspectives can be gained sufficiently from analysis of statements made in the media. They would also be available in Coronial transcripts, which have not been utilized here for reasons explained above. It is hoped that this research still captures individual concerns and experiences, and that it may provide some benefit to readers who have experienced CEW use in terms of helping them make some sense of their experience and in knowing that their concerns about the weapons are not confined solely to those who have been personally affected by them.

Another concern related to the constant reality of having to be very careful with expressions and terminology in the writing of this work, due to the potential for litigation by weapons manufacturers who may consider this work libellous. A strong precedent for such a response exists in both USA and France, where Taser International has taken legal action against parties who have overtly linked their product to deaths. This is still a very grey area and an issue that will be discussed in later chapters. This required a careful use of language and a constant awareness that the research was taking place in a volatile and unpredictable research environment.

CONCLUSION

A phronetic methodology must necessarily be mixed and has been adopted with the intention of making sense of what might otherwise appear to be a random series of events unrelated to the broader field of CEW use internationally. This has necessarily involved making decisions about what is happening and who is benefiting. This follows a newly established tradition of social science research that allows alternative constructions of how decisions made in the social world can be linked to specific outcomes. The following chapter begins the phronetic analysis of CEWs by considering the events that formed the background to their adoption in Australia. It examines the early development of CEW weaponry and provides a history of Taser International itself. It also captures the knowledge we have of the early deaths that occurred following their introduction and early use in the USA. This discussion provides a robust background to events which preceded the proliferation of CEWs in Australia.

CHAPTER TWO: BETWEEN THE LINES - BUILDING THE ORTHODOXY OF SUBLETHAL WEAPONS

Engineering of social control is not new. What is new is the scale and relatively greater scientific precision, continual invention and experimentation, and rapid global diffusion. Technical means of control saturate modern society, colonizing and documenting ever more areas of life. The roots of contemporary social control lie in the development of large organizations and standardized control technologies (Marx, 2007: 47).

This chapter provides a background discussion of events that have helped to normalise the use of sublethal weapons in Australian policing, with a focus on CEWs. It demonstrates in detail how an overarching orthodoxy has been built around CEWs that has worked to support their acceptance. A short discussion of OC spray's promises and limitations is used to question this orthodoxy. It presents a detailed history of the development and early use of CEWs in the USA and documents some of the early deaths that occurred following their initial introduction. Following the phronetic approach, this is intended to provide a very broad context to the acceptance of CEWs as a legitimate policing tool, against which to set the more focussed study of the Australian experience that is presented in subsequent chapters. This chapter therefore presents the necessary background for understanding how it has come to be that a single company dominates world-wide proliferation of CEWs in western democratic policing, demonstrating the manner in which the present orthodoxy of harmlessness was built around Taser International's products and how it has managed to resist any evidence to the contrary. The discussion uses the concept of the technofallacy as a background for understanding these events. It begins with a short discussion of the nomenclature surrounding sublethal weapons.

THE 'NON-LETHAL' ARMAMENTARIUM

Finding the right terminology to use when talking about the type of weaponry considered in this study has not been easy, since an array of terms are used in the literature. It seems that the technologies have been developed faster than we have been able to settle on a common language to speak. The considerable variance in descriptors also demonstrates the significant uncertainty that characterises such weaponry. At the outset it was necessary to choose the term that most accurately captured the nature of these weapons. The term chosen was 'sublethal'. The most common description used in early discussions of such weapons is 'non-lethal', followed by a shift in the language towards the terms 'less-than-lethal' or simply 'less lethal' as the weapons' capacities came to be better understood

(mostly through their use in the field) (Feakin, 2006). These two terms probably remain the most frequently used. Other terms are also used including 'disabling', 'incapacitating', 'worse-than-lethal' 'soft-kill', 'pre-lethal', 'paralysing' and 'compliance' weapons (Feakin, 2006; Wright, 2002). Notably, policing agencies tend to prefer to use the term 'device' rather than 'weapon' when describing electrical technologies. The many variations in terminology reflect the contested nature of the terrain.

Choosing the term sublethal involved an element of compromise. At first, 'compliance weapons' was appealing and may yet turn out to be the most accurate description, but the term underplays the possibility that these weapons can, and sometimes do, result in death. In addition, the term shifts attention away from the reality that a major rationale for the introduction of these new weapons in the first place was the promise that they would reduce police reliance on firearms. Firearms are properly and legally used by police in the context of self-defence and defence of others, not in order to enforce compliance. Similarly, the common term 'less-than-lethal' would not do, as it avoids the possibility that such weapons are sometimes *not* less-than-lethal at all. Ultimately, since the record undeniably shows that these weapons are most frequently used in addition to, rather than as a replacement for, firearms, Wright's (2002) example has been followed and the term *sublethal* is used in this work. This term best avoids the implication that the weapons cannot kill. The prefix 'sub' still invokes something that is 'below', but still most successfully removes implications of harmlessness.

Sublethal weapons include rubber bullets, plastic bullets, beanbag projectiles, tear gasses, water cannons, nets, acoustic devices, capsicum sprays (OC) and conducted energy weapons (CEWs). All fit the category because of their express purpose of incapacitating targets in the place of other potentially lethal options. They are marketed on the basis that they will help avoid lethal outcomes. The present study examines OC sprays and CEWs in most detail as they are most prominently employed in everyday policing rather than being intended for extraordinary crowd control purposes, as the others generally are. This gives them a special importance in terms of their potential impact on general policing practice: their widespread adoption and use represents an important and unprecedented alteration to everyday policing practice in relation to use of force options.

Other technologies are currently emerging, with most being vehicle mounted and so not well suited to everyday policing. The 'long range acoustic device' (LRAD) was used by Pittsburgh police in the 2009 G20 protest. This device emits soundwaves that cause pain designed to repel large crowds. There is also the 'Active Denial System' (ADS) which uses electromagnetic radiation to produce a burning sensation on the skin eliciting a 'goodbye effect' meaning 'prompt and highly motivated escape behavior' (Hambling, 2006). This weapon has been deployed in Afghanistan by the American military but was reportedly withdrawn. A smaller version of the technology has been trialled by the Los Angeles Sheriff's Department in the county jail, termed an Assault Intervention System (Los Angeles

County Sheriff's Department, 2010). It remains unclear whether this technology will ever find a broader market.

This thesis focuses on CEWs, which are variously called CEDs (Conducted Energy Devices), ECDs (Electronic Control Devices), Els (Electronic Incapacitants), EMIs (Electro Muscular Incapacitants), Tasers®, stun guns, Electro Shock Weapons and Electrical Weapons. The term CEW was chosen as it incorporates the 'weapons' descriptor (as opposed to a 'device') and also for its neutrality in terms of market competitors. This term is widely used in Canadian material. 'Taser' has become a generic term, just as other brand names that have been appropriated into everyday language such as 'aspirin' or 'Band-Aid'. It is typical for the media to refer to all forms of stun guns as 'tasers' and this practice muddies the waters of the debate somewhat. This is particularly the case when offenders use stun guns (which are available on the internet) during robberies which are then referred to in reports as 'tasers'. For this reason, in this discussion the term Taser® has been used deliberately when referring to a weapon specifically branded as such. Wherever possible the generic class of electrical weapons that use neuro-muscular disruption is referred to as CEWs.

CONDUCTED ENERGY WEAPONS

Australian police exclusively use Taser® brand CEWs. These have a single Australian distributor, Breon Enterprises¹⁰, whose Director participated in interviews for this research. Taser International dominates the market in supplying police with CEWs worldwide. This company's history provides an important background to the discussion of the broader implications of sublethal weapons for policing, and is presented in the following section. Taser International's history is important because its fortunes play a prominent role in the ongoing development of CEW technology and in the propagation of them as a safe, lifesaving law enforcement tool: a 'standardized control technology' such as that referred to by Marx in this chapter's epigraph.

Taser International has vigorously condemned and often litigated against anyone who criticises their product or attempts to link it directly to a death. Through their marketing tactics the company has played a dominant role in the development of the present orthodoxy, or common perception, that CEWs can replace other use of force options, especially firearms, and thereby save lives. This orthodoxy is prevalent in the rationales and rhetoric employed to defend the introduction of CEWs into modern policing, which is examined in detail in Chapter Three. By contrast to their western liberal cousins, Australia is a relatively new customer. This means that most of the standard rhetoric that has been

¹⁰ The company has since changed its name to Breon Defence Systems.

used to fuel their acceptance here has been revealed as faulty, or at the very least highly questionable, well before Australian police forces' foray into the market.

The acquisition of CEWs in Australia coincides with a significant upsurge in Taser International's fortunes. Established in the early 1970's, the company initially struggled for survival as it worked to establish a market for itself. With its product undergoing continual development, the company also changed its name several times. Acquired by brothers Rick and Tom Smith in the early 1990s, the company's fortunes began to rise at the century's turn. When first floated on the stock market in 2001, shares were valued at around thirteen dollars, reaching a high of around thirty three dollars in late 2004. By then, the market for a less-lethal policing tool, more efficient and effective than OC spray, was clearly established and the product's uptake increased with the introduction of the 'improved' X26® model. From that point, the rate of CEW proximate deaths grew steadily as did the number of law suits against Taser International, municipalities and police. There began a steady decline in the company's share price until stocks reached a low in late 2008 of two dollars and seventy nine cents. Since mid-2009, they hovered around four dollars, rising to six dollars in the latter half of 2011¹¹.

As a company, Taser International continues to face many challenges. Question marks persist around the product's safety and efficacy, as this thesis will demonstrate. The company has so far battled over eighty law suits in the United States and continues to face many more. On the other hand, the CEW is now well ensconced as law enforcement tool *de rigueur* in every western country. Since Taser International provides support, service, cartridges and batteries for almost every CEW in the field, its continuation and success is now quite strongly linked to the heart of the modern policing enterprise, and so probably assured. Although history suggests that the CEW is very likely to be superseded by some other technological innovation, Taser International has established a place in the history of modern policing.

Placing new weapons technologies in the context of accumulated knowledge of police use of force is useful in establishing the parameters of concern and the building effective regulatory responses. Past research assists in understanding the appeal of sublethal weapons and provides insight into problems that may arise from their use, particularly use of weapons outside policy and the possible impacts on the principle of minimum force.

THEORISING USE OF FORCE

¹¹ This increase coincides with the introduction of a new, improved model, the Taser X2® which has a double-shot capacity, shuts off automatically after five seconds and has enhanced audio and visual recording capability over its predecessors the X26® and X3®.

Police use of force, and especially excessive force, has provided a focal point for police scholars for around forty years (Hawkins and Ward, 1970; Harding, 1970, 1975; Kobler, 1975; Skolnick, 1975; Muir, 1977; Fyfe, 1981; Scharf and Binder, 1983; Waddington, 1991; Skolnick and Fyfe, 1993; Reiner, 1985; Chappell and Graham, 1985; Hogan, 1988; Klokars, 1980, 1996; Palmer, 1995; Bailey, 1996; Geller and Toch, 1996; McCulloch, 1990, 1992, 2000, 2001). Prior to 1970 very little was published on the topic of policing in the social sciences, with police generally seen as a mundane bureaucratic organization engaged in the enforcement of law. The 'discovery' of police discretion by social scientists, long understood by police themselves, emerged largely from ground-breaking ethnographic research conducted by researchers such as William Westley in 1951, resulting in the recognition of the importance of independent evaluation of policing strategies and outcomes (Goldstein, 1977). The incontrovertible importance of police discretion was also exposed by the American Bar Association's 1955 study of criminal justice administration in the United States, which resulted in a number of seminal publications dealing with the practice of policing (see LaFave, 1969; Tiffany, McIntyre and Rottenburg, 1967; McIntyre, 1967). This period also brought a greater appreciation of the significant structural and cultural barriers to police accountability with which we are familiar today.

Many of the issues addressed in the foundational research retain contemporary relevance. In particular Skolnick's *Justice Without Trial* (1975) which questioned the capacity of the rule of law alone to control police behaviour. Skolnick argued that working police experienced serious contradictions between what the community expected them to achieve and what they could legally accomplish. His view was that that police are better understood as craftsmen rather than legal actors, and that there are five key features of the policeman's working environment that limit the control of legal and moral permissibility over officer's behaviour. These are: the social psychology of police work, an officer's stake in maintaining authority, police socialization, pressure to produce efficient rather than strictly legal outcomes and also the low visibility of policing. Two of these seem especially useful in terms of understanding the current proliferation of sublethal weapons. Such weapons hold the promise of maintenance of authority with low risk of injury. They also provide a new means to reduce the pressure to produce 'efficient' resolutions to critical incidents. Like other advances in technologies, CEWs will undoubtedly affect the practice of policing. The main concern around this is that the result will be a renewed emphasis on using force to resolve incidents. In this way, CEWs reflect a militaristic view of policing - militarism is defined as 'a set of beliefs and values that stress the use of force and domination as appropriate means to solve problems and gain political power' (Kraska and Kappeler 1997:1). It is argued throughout this thesis that the combination of paramilitarising forces and the allure of new technologies may have a profound impact on the principle of minimum force which has historically been used to rationalise and justify the use of weapons by police.

TECHNOLOGY AND POLICING

In as much as technology is now central to social control, it profoundly shapes criminal justice practices (Shearing and Stenning, 1985, Christie, 2000; Marx, 2007). While technology may not alter the central mandates of policing itself, it has been argued that it is likely to have significant impact on its practice (Haggerty and Ericson, 1999). Research has highlighted police as the new brokers of knowledge in the 'risk society' (Ericson and Haggerty, 1997). Arguably, weapons manufacturers have now joined them in this role. As a result, as this thesis argues, weapons technologies (such as CEWs) are likely to change conceptions of minimum force in the eyes of the consuming public.

There is a history of technologies changing the practice of policing. For instance, the advent of the motorcar, police radio and television have all been noted as significantly transforming the relationship between citizens, especially the middle-classes, and police (Skolnick, 1975; Reiner, 1985; Manning, 1997; Wilson, 2005; Dupont, 1999). Satisfying those citizens most likely to be police 'watchers' – the middle class public who are frequently the eyes and ears of police - and also keeping close ties with this group is extremely important for successful policing. For this reason, the extent to which technology has adversely affected this relationship has probably been largely unforeseen, unpredictable and perhaps unavoidable. Dupont (1999) explains that:

There is no doubt that the advent of the car changed the territorial conceptualization of the police officer's environment. The knowledge of the streets, their intersections and connections, the places offering maximum (or minimum) visibility of the police car and scenes of frequent traffic accidents were the components of a new geographical knowledge, putting less emphasis on the intimate understanding of the people and their activities. Likewise the possibility for the population to call the police at will, even for trivial incidents, and the reduction of processing time generated by dispatch systems made the quasi-immediate appearance of police officers at the scene of petty crimes a legitimate expectation. However, their helplessness to provide more than comfort and advice, sometimes tainted of cynicism (sic) was the source of more frustration and disillusionment than satisfaction from the public (Dupont, 1999: 6).

The advent of television added to this problem of growing distance between the police and the middle classes. The policing of protest and dissent, frequently characterized by use of force, could be captured in news footage and viewed by millions around the world (Skolnick and Fyfe, 1993). The anti-Vietnam war movement of the late 1960s, in particular, meant that much of this televised force was aimed at the children of the middle classes. Academic interest in police discretion and use of force was spurred by this, resulting in a new field of study devoted to analysing its causes, symptoms and remedies. Now, the respective roles of culture, training, policy and accountability are relatively well understood, thanks in particular to much early work focusing particularly on the patterns and characteristics of deadly force encounters (Chevigny, 1969; Harding, 1970, 1975; Kobler, 1975; Fyfe, 1981;

Scharf and Binder, 1983; Chappell and Graham, 1985; Hogan, 1988). Understanding the impact of new technologies such as sublethal weapons is, however, a relatively new frontier.

Technology has served to alter the symbolic mystique of policing, moving it away from a physical presence to something much more pervasive (and invasive). The display of bright yellow CEWs on the front of a patrolling officer's belt takes us a long way from the British bobby who was expected to exhibit 'forbearance, mildness, urbanity and perfect civility towards all classes', armed only with a truncheon (Police Regulations, 1877 cited in Wilson, 2006: 48). Instead, it carries the overt implication of an extreme and especially distasteful kind of pain – the electric shock.

The mystique of scientific advancement and professionalism now prominently circulate around the idea of modern policing (see Ericson and Shearing, 1986). Policing organisations have turned towards technological innovations for a range reasons. First, the ability of an officer 'on the beat' to deter crime has turned out to be limited, mostly because such a system made his presence highly predictable and thereby undermined the certainty of punishment that Bentham's classical conception of crime advocated (Wilson, 2005). This opened the way for 'new and improved' ways for policing to fulfil the requirements of panopticism, all centred around early twentieth century advances in technology. Radios, cars, fingerprinting, computers and more recently DNA analysis have all expanded the power of policing to be the omniscient and controlling force that the public desires. Police can now know things about events without ever having been present when they occurred.

Second, technology provided a way for policing to stake a claim on scientific innovations that had begun to pervade modern life, providing an air of professionalism and infallibility (Dupont, 1999). This trend, it has been argued, 'continues to fashion perceptions of policing both among police themselves and throughout wider culture' (Wilson, 2005: 107). It is likely that sublethal weapons simultaneously draw from and contribute to the tenor of such perceptions. The effects of widespread police use of sublethal weapons on social relations and social cohesion are yet to be fully explored, but there are a number of studies that hint at some of the possible outcomes. The consequences of excessive force for police/community relationships are now well documented (Skolnick and Fyfe, 1993; McCulloch, 1992; British Columbia, 2009). For instance, riots followed the acquittal of officers charged with the much publicised (and video-taped) beating of Rodney King (Skolnick and Fyfe, 1993). More recently, the 2011 London riots were sparked by the police shooting of a man named Mark Duggan (Hughes, 2011).

Evidence suggests that CEW use, in particular, is impacting negatively on police/community relations and undermining the goals of community policing strategies (Adams and Jennison, 2007). The United States has seen a number of protests following CEW related injuries and deaths in custody (Pittsburgh Independent Media Center, 2005; Lalonde, 2007; Omarzu, 2007). The effects of deteriorating police-community relations are by now well established; with use of force that is perceived a heavy-handed being high on the list of causes (Skolnick,

1975; Muir, 1977; Jefferson, 1990; Skolnick and Fyfe, 1993; Rappert, 2002). Rappert argues that 'policing measures designed to quell dissent often end up fuelling it' illustrating the problem at the heart of relying on force to achieve social control (Rappert, 2002: 693). A large part of this problem is the extent to which use of force, especially when it is perceived as unjustified, shapes the 'ongoing cultural consciousness' of certain people (Kleinig, 2007, p. 287). In a discussion of the ethical concerns surrounding the use of CEWs by police, Kleinig equates social impact with political risk. Kleinig submits that there is a range of ethically relevant risks for police using sublethal force: these are framed as legal risk (facing law suits), administrative risk (dealing with large volumes of complaints) and political risk (losing support).

If Rappert and Kleinig are correct, the constant implied threat of being shocked with electricity which attends police carriage of CEWs could have far-reaching and damaging impacts on the public perception of the institution of policing itself. The cumulative cost of this damage may be significantly more than a handful of officers with blackened eyes or broken bones, which seem to be the common outcomes that sublethal weapons use successfully avoids. Kleinig explains:

Although technology may offer clean and aseptic ways of controlling situations, its use may also impact on public perceptions in ways that should be taken into account. We are usually more comfortable about two officers wrestling a refractory person to the ground than the sight of them tasing the person. Tasing seemingly violates dignity in a way that wrestling into submission does not (Kleinig, 2007: 289).

That CEWs in particular carry a potent implicit threat is well established in usage patterns and marketing material. The 'presentation only' mode of use typically accounts for up to 40% of uses and is enough to obtain a suspect's compliance (see Chapter Six). That a reliance on this threat of force carries a cost is highly foreseeable to some, but this notion does not feature strongly in the public debate about their introduction. Although certainly present, this concern is obscured by questions about the weapons safety. The debate centres very much on whether or not CEWs can kill and knowledge in this area is dominated by industry funded research (Azadani, Tseng, Ermakov, Marcus and Lee, 2011). In such research, we see an example of the interplay of science and policing in perhaps its most salient (and poorly conceived) form.

TECHNOLOGIES OF POLITICAL CONTROL?

Sublethal weapons were first termed 'technologies of political control' in 1977, well before their introduction in Australia (Ackroyd, Margolis, Rosenhead and Shallice, 1977). In their seminal work, dealing with what were then emerging technologies (including riot control, surveillance and incarceration technologies), Ackroyd et al argued that, particularly in Northern Ireland, the adoption of sublethal weapons such as rubber bullets was a response to declining political authority. This research was the first to explain that a large part of the appeal of sublethal weapons was that they 'offered the advantage of appearing less brutal

than they were' (Rappert, 1999: 742). At this time, it was already apparent that the impact of new, 'softer' weapons was broader and more complex than originally foreseen. It was also clear that such weapons had a pronounced capacity to quell disorder and dissent, thereby reinforcing existing power structures and modes of maintaining social control, especially in terms of public order.

From the late 1970's onwards, the literature traces the development of increasingly sophisticated technologies of surveillance, information gathering, imprisonment and use of force all of which have been designed to make law enforcement more efficient while simultaneously enhancing its capabilities and sometimes reshaping its practices (Wright, 1998; Rappert, 1999). While it is not hard to see the appeal of such weapons for law enforcers, there is significant concern in the critical literature around the capacity of technology, especially weapons technology, to contribute to political oppression by substantially reinforcing existing power relations. This possibility raises a set of questions that are quite different from those concerned mainly with the safety margins of sublethal weapons, which is the focus of the vast majority of CEW studies that have been carried out to date (Strote and Hutson, 2006; Adams and Jennison, 2007; Smith et al, 2007; White and Ready; 2007; Ready et al, 2007; Smith et al, 2007).

The earliest empirical evidence of the measurable outcomes of sublethal weapon use emerged from the United States. Bailey (1996) considered the impact of 'less-than-lethal' weapons on police-citizen killings and found they 'simply do not provide an improvement over 'business as usual' in the prevention of deaths at the hands of police' (Bailey, 1996: 549). More recently, CEWs were found to substantially increase rates of in-custody death during their initial deployment phase, while failing to reduce firearms deaths or injuries to officers (Lee, Vittinghoff, Whiteman, Park, Lau and Tseng, 2009). Such research opens up a problematic consequence of sublethal weapons – they carry an enormous netwidening capacity because of their perceived (and widely advertised) 'safety', but at the same time have a demonstrated capacity to kill (in certain circumstances). This reality presents a significant challenge to policy makers.

Netwidening is a term introduced by Stan Cohen to describe concerns about the move towards deinstitutionalisation, diversion and decriminalisation during the 1980s. It described the unintended consequences of such strategies in terms of producing 'wider', 'stronger' and 'different' nets of social control (Cohen, 1985). Netwidening results in a higher number of people being exposed to significant interventions in the guise of strategies designed to avoid the harshest criminal justice outcomes. The term is not generally used in relation to police use of force, but the notion that sublethal weapons, constructed as a 'softer' option, will result in greater numbers of people having significant force used against them is already present in the discourse, usually described as 'mission creep' (Lewer and Davison, 2006).

'Mission Creep' refers to the process whereby a tactic comes to be used in circumstances outside those for which it was originally intended. This notion is also described in the literature as 'function creep', 'usage creep' 'taser creep' and 'scope creep' as well as 'weapons drift'. The phenomenon is widely noted in reports and evaluations of sublethal weapons use and is seen as one of the key problems stemming from their use. Policies both here and overseas have been altered and tightened in order to deal with the overwhelming evidence that such creepage occurs in the absence of firm regulation (and sometimes even in its presence).

OC SPRAY: AN EXEMPLAR

The following examination of the introduction and use of OC spray helps to build a taxonomy of problems that characterise sublethal weapons use more generally. The main problems identified here are mission creep, lack of independence of research into weapons' safety, methodological problems inherent in such research, misrepresentation of products capabilities by marketers and the need for constant redevelopment by manufacturers in an effort to overcome operational limitations that occur in the field. All these issues are evident in relation to CEWs and this short discussion of OC spray is intended to provide a foundation for the overarching argument of this thesis.

For instance, the phenomenon of mission creep, widely observed in relation to CEWs, has been particularly evident in patterns of OC spray use nationally and internationally. In the Australian context, police have been using OC spray in circumstances where lethal force (or perhaps even *any* force) would likely be judged as entirely inappropriate for some time. Spray and foam have come to be viewed as more an 'intermediate option' than an alternative to firearms use, creeping away from its original purpose of reducing fatalities¹². This can be supported both qualitatively and quantitatively. For example, during the 2008 Australian Open tennis tournament held in Melbourne, police deployed the spray into the crowd in an effort to bring a group of unruly barrackers under control, resulting in much criticism and speculation about the appropriateness of the action (Johnston, 2008; also see Merkel, 2008). In March 2011, several Freedom of Information (FOI) requests made by media organisations resulted in reports that suggested the use of OC sprays against juveniles was occurring with alarming frequency in at least 3 jurisdictions. In Victoria, they were reportedly used 1024 times against juveniles in the 5 year period between 2005 and 2010. 20 of these deployments were against unarmed children under the age of 13 (Harris, 2011). Similarly in WA, 81 children were sprayed between 2007 and early 2011 (notably

¹² Victoria was the first Australian jurisdiction to introduce OC spray, in 1997. This was done as part of Project Beacon in response to the large number of fatalities that occurred during the 'Shootings Era' (McCulloch, 2001).

these figures are much lower than Victoria's) (Lampathakis, 2011). In QLD, 1 in 18 people sprayed over a 3 year period from 2008 was under the age of 13, 220 children were sprayed overall during the period (Baskin and Ironside, 2011). Use of OC spray has also come under review in Tasmania, where the newly formed Tasmanian Integrity Commission is reportedly overseeing a police investigation into the spraying of a 13 year old boy. Footage of this incident was posted on YouTube (Dawtre, 2011). As most parents know, children sometimes have outbursts, but it would ordinarily be regarded as abhorrent for a parent to take up a weapon in order to regain control.

Other evidence suggests that Victoria Police, in particular, are becoming increasingly reliant on the use of OC spray in general, not just when dealing with juveniles or children. The use of OC spray has increased sharply since its introduction¹³. While in 1998 figures suggest it was deployed 3 times a week on average, by 2008 it was used almost seven times a week (Silvester, 2008). Further, a report from Victoria's oversight agency, the Office of Police Integrity (OPI) into the use of force by and against police found that reported OC spray use increased in the sample stations across the period examined, July 1 2004 to June 30 2008 (Office of Police Integrity, 2009). The increase was pronounced in two particular areas, Melbourne West and Frankston. In Melbourne West, reported use went from 28 in 2004-2005 to 46 in 2006-2007 and then 134 in 2007-2008 (Office of Police Integrity, 2009: 40). The report relates this sharp increase to the commencement of a Safe Street Task Force in that area. This suggests a normative status for OC spray as a useful tool for everyday street policing. Such statistics provide clear evidence of mission creep in relation to OC spray in Australia. They suggest that weapons are being used to achieve control in a wider and wider variety of situations, increasingly involving children (who, it should be added, are likely to be experiencing some sort of crisis). This illustrates an erosion of the principle of minimum force which will arguably be exacerbated by the incremental replacement of OC spray by CEWs in Australian policing for reasons that will be explored in following chapters.

OC spray was first used widely by police in the late 1980s and early 1990s in the United States (ACLU, 1995; Smith, Kaminski, Rojek, Alpert and Mathis, 2007; McCulloch, 2000). Britain and Australia both followed suit in the mid-1990s (Rappert, 2002; McCulloch, 2000, 2001). It replaced o-Chlorobenzylidene malononitrile (CS), used in the United States by the Army and the National Guard primarily for riot control. Police in the United States adopted 'military protocols' and began using CS, commonly known as tear gas in 1965 (Edwards, Granfield and Onnen, 1997: 2). CS had, in turn, replaced Chloroacetophenone (CN) as it was

¹³ Although, as we will see later in this thesis, OC spray use tends to sharply drop following the introduction of CEWs. OC usage figures in Victoria will be particularly interesting to observe as CEWs are rolled out over the next few years.

found to be less toxic and more effective. Capsicum or pepper spray is composed of Oleoresin capsicum (OC), derived from the cayenne pepper plant and has a more inflammatory effect on tissue than its predecessors. While both CN and CS are still in use in some places, OC has become the most widely used spray in policing jurisdictions. Its benefit is that decontamination, or 'aftercare', is less onerous and time-consuming for police (Edwards et al, 1997). This kind of constant upgrading is a typical feature identified by the research on the marketing of technology to police and other criminal justice agencies (Christie, 2000). When products enter the market they are sold on a series of purported benefits, but as the benefits fail to be realised, or other significant limitations become evident, new and improved options are introduced to replace them. Arguably, this pattern serves manufacturers' profit margins much better than it serves operational police or their communities.

OC was originally endorsed by the FBI, a persistent reference point for 'best practice' in policing (McCulloch, 2000). Following FBI experimentation with OC in the late 1980s, police in the United States, and later Australia adopted it for general deployment. Special Agent Thomas Ward, regarded by the FBI as an OC spray expert, tested the substance on almost 900 trainees and police officers during 1989, finding it a safe and effective tool for law enforcement. However in 1996, Ward pleaded guilty to accepting \$US57,000 from the capsicum spray manufacturer Cap-Stun and was given a two-year suspended sentence, raising serious questions about the objectivity and independence of his research (Rhodes, 1996 cited in McCulloch, 2000). Here again we see a feature that is typical in the marketing of sublethal weapons more generally, that is, a lack of independence in the research which, even when exposed, does not impact a weapon's uptake. This theme of lack of independence is one that recurs throughout this and other analyses of sublethal weapons research (Azadani et al, 2011). Ward's study, regardless of issues of independence, suffered from another serious limitation common to sublethal weapons research. This concerns the reliable replication of 'the field', and makes the validity of findings highly questionable. The successful marketing of sublethal weapons in spite of these serious issues can be explained the power of the technofallacy and the strength of the desire to believe in a failsafe system.

Independent empirical research into OC spray by non-government organisations began to emerge in the first half of the 1990s following a number of deaths and serious injuries following its use (ACLU, 1995). Key questions arose around the risks and uncertainties of its use, especially in relation to officer's occupational health and safety and whether the spray could really provide an alternative to firearms and reduce injuries. There were also concerns about the contexts in which the spray would be used (Amnesty International, 1993; American Civil Liberties Union, 1993, 1995; McCulloch, 2000). In the United States, these concerns were met by a number of National Institute of Justice (NIJ) funded projects tasked with researching the possibility of a link between OC spray and fatalities. Recently, the NIJ have also investigated CEWs for the same reason.

The first influential NIJ study, the Baltimore Study, found that suspects were 'successfully incapacitated' in 156 out of 174, or 90% of confrontations (Edwards et al, 1997). It was found that the spray was sometimes less effective against drug affected or mentally ill individuals and that the rate of assaults against officers was on the decline before the introduction of the spray although the rate of decline increased after its introduction (Edwards et al, 1997). It was also reported that many officers disregarded training instructions in deployment, often spraying within less than three feet when directives suggested maximal efficacy at a distance of four to six feet. Ultimately, it was concluded that OC spray offered 'advantages over more problematic sprays', that assaults on officers, injuries to both officers and civilians and use-of-force complaints 'were low' (Edwards et al, 1997: 8).

Chan, Vilke, Clausen, Clark, Schmidt, Snowden and Neuman (2001) published the results of a second NIJ funded project which investigated the claim that OC used in conjunction with physical restraint could cause asphyxia and death. The research found no significant risk (Chan et al, 2001). This finding, the authors argue, should 'provide law enforcement some measure of comfort that they are employing force methods that have been tested and found safe' although the study did not consider the consequences of repeated exposure to OC which the authors admitted 'commonly occur in the field setting' (Chan et al, 2001: 6). It is acknowledged that 'it is unlikely that all conditions that occur in the field - particularly physiological and psychological effects of stress and trauma-can be reproduced in the laboratory', hence the inexactness of any kind of empirical research into the safety of sublethal weapons is frankly acknowledged (Chan et al, 2001: 5). The same observation can be made about much of the available CEW research that is repeatedly provided as evidence of sublethal weapons' safety.

One significant independent study of OC spray was carried out in 1997 by the Berkeley Police Review Commission which analysed use of force data from the Berkeley Police Department. It sets its findings against those of the NIJ funded Baltimore Police Department study which had found the spray 90% 'effective' (Edwards et al, 1997). The Berkeley Commission, by contrast, found the spray 'effective' in just 19.4% of the 36 incidents analysed (Police Review Commission of the City of Berkeley, 1997). It cites consumer testing that found OC to be of limited use against a 'goal oriented' attacker (Police Review Commission of the City of Berkeley, 1997: 2). Analysing the contemporary and contradictory research on OC spray, the authors note:

there appears to be no consistent standard definition for what constitutes effectiveness, no consistent methodology of analysis, and vastly differing conclusions, ranging from 0% to 100% effective (Police Review Commission of the City of Berkeley, 1997: 2).

The Berkeley Commission went so far as to recommend that police abandon the use of OC spray based on this evidence and concerns about officer safety. Health complications associated with the spray and an adverse impact on police-community relations also

influenced the recommendation. The main concern in relation to officer safety was the risk of secondary exposure (where wind dispersal causes the spray to affect bystanders or the deploying officer) and the possibility that using the spray may exacerbate a situation and result in a more aggressive suspect.

It is not known whether the recommendation was temporarily adopted, but recent council minutes indicate that the spray is available to Berkeley Police now but use for crowd control was prohibited in 1997 (Berkeley City Council, 2011). Concerns about OC spray, identified in Berkeley and by others during 1997, endure while more are emerging, especially surrounding the potential long-term health effects of the type of propellant used to disperse OC (Rappert, 2002). When OC proximate deaths began to occur, a pattern emerged whereby the deaths were never found to be caused directly by the spray, but were often attributed to 'restraint asphyxia' or to a relatively new condition known as 'Excited Delirium'. This latter condition will be examined in more detail later in this chapter as it also features in a large number of CEW proximate deaths.

While it is evidently difficult for Coroners and medical examiners to draw causal links between sublethal weapons and fatal outcomes, the potential hazards should not be ignored. As strongly argued by Doubet (1997), reporting on the medical implications of OC sprays, not only have deaths been linked to OC but also injuries to officers¹⁴. He argued that

the hazards are real and the evidence is there to support it. The time has come for manufacturers and proponents of OC spray to stop misrepresenting their product in order to protect profits at the cost of both officers and the public (Doubet, 1997:49).

Another issue noted by Doubet is the uncertainty around the safety of OC use on people with pre-existing medical conditions, like asthma. He also refers to the carcinogenic properties found not in the spray itself, but in its propellants which make up around 90% of the deployed substance, arguing for the importance of officers being 'fully informed about all the hazards as well as the benefits of OC spray' (Doubet, 1997:50). He argues that:

for too long, officers have only been told the success stories of OC spray and how they need to feel it to understand what the suspect feels when he/she is sprayed. In most cases, officers are not told about the hazards to themselves or the suspect, nor about what ingredients are contained in the OC spray (Doubet, 1997:50).

In the contemporary context, police routinely report significant problems with OC use, including secondary exposure and the possibility that the spray may be ineffective (Criminal

¹⁴ These observations resonate with emerging concerns around CEWs. Several officers have been injured during training (Goldman, 2008; Trahan, 2011).

Justice Commission and Queensland Police Service, 1999; Moor, 2008). Police argue that around 20% of offenders are impervious to OC spray because of 'their psychological state, the consumption of alcohol or other substances' and note the large amount of time required for after-care following capsicum spray use (Falconer, 2009). A Victorian officer argued in a media report that 'it is ridiculous to try to disarm someone with a knife with a baton or spray' and that 'it affects other members of the public and police as well' (Moor, 2008). Also, Western Australian police recalled capsicum spray canisters issued to all operational police in 2008 after finding that the spray was flammable when combined with cigarettes or CEW currents (ABC News, 2008b). The introduction of CEWs has meant that alcohol based propellants used in OC sprays have had to be replaced with water based canisters in those jurisdictions that deploy CEWs, which will make the acquisition more costly than has generally been reported to the public. It may also result in a greater reduction of OC use in those jurisdictions. This is primarily because the benefit of alcohol bases is that they leave far less residue in the air and on the target than water bases. The water based sprays will require significantly more aftercare and 'clean up' which may add to officers' reluctance to deploy them and make use of CEWs an even more attractive option. This factor might possibly augment the mission creep of CEWs, and could be worthy of future research.

The final point to make is that clearly OC spray has not replaced lethal force nor can it be definitively stated that the introduction of this sublethal alternative has significantly reduced the rates at which firearms are presented during critical incidents in Australia (even though record keeping of this important data is extremely poor and so very difficult to compare or analyse) (Bailey, 1996; Ireland, 2002). Using Victoria as an example, however, reductions in police shootings did occur following the introduction of OC spray but the reduction was, at least partially, the result of the re-emphasis in training under Project Beacon and the more cautious approach to firearms that it incorporated. More recently though, the rates of police shootings in Victoria have begun to rise again (Houlihan, 2009; Office of Police Integrity, 2009; Federation of Community Legal Centres, 2011).

The shooting of 15 year old Tyler Cassidy in late 2008 resulted in the Coroner criticising police training once again and calling for a reemphasis on less aggressive tactical approaches to critical incidents (State Coroner of Victoria, 2011). OC spray was deployed twice against Cassidy and according to the coroner served only to inflame the situation. Cassidy's death was used to bolster calls for CEW introduction in Victoria, even though sound policy would (or should) have precluded its use against a young person of small build who was standing in an elevated position at the time of his shooting. This will be further discussed in Chapter Three.

This section has demonstrated a range of problems stemming from OC spray use, some of which have fuelled the search for a new technology to better fulfil the sublethal promise that OC had seemed to offer. That this new technology, the CEW, is hampered by many of the same, or similar enough, problems is a curious aspect of the problems explored in this thesis. This phenomenon seems best explained by the power of a range of 'technofallacies'.

CLINGING TO TECHNOFALLACIES

Corbett and Marx's (1991) notion of the technofallacy serves as a useful lens through which to understand the enthusiastic uptake of sublethal weapons by police despite some significant operational flaws and a less than satisfactory evidence base to support their sublethal status. Technofallacy is the term given to a range of rationalisations that support the introduction of technology as a solution to social problems. Technofallacies simultaneously create both the strong desire to adopt new technologies (often in the absence of clear evidence about their capacities and efficacy) *and* the disillusionment in their performance that results in a constant production of technology 'upgrades' in our search for a 'silver bullet'. Discussions of sublethal weapons fit neatly into this paradigm, as do other technological innovations that have been brought to bear on policing.

Benoit Dupont applied Corbett and Marx's technofallacies specifically to policing very usefully in a 1999 conference paper (Dupont, 1999). He reduced the original ten down to eight and used them to explain the 'theoretical limitations associated with the belief that...information technology...can improve the effectiveness and efficiency of the police' (Dupont, 1999: 2). He notes that these limitations apply to any technology, and his view is reinforced by the application of the technofallacy framework to CEWs. Drawing on Dupont's interpretation of Marx and Corbett (1991), the eight key fallacies that impact on the adoption of technology by police are:

- The fallacy of explicit agendas;
- The fallacy of novelty;
- The fallacy of surface plausibility;
- The fallacy of the free lunch;
- The fallacy of quantification;
- The fallacy of ignoring the recent past;
- The fallacy of neutrality;
- The fallacy of the fail-safe system.

These bad habits work together to support a range of beliefs that have fuelled the uncritical acceptance of sublethal weapons like CEWs. The 'explicit agenda' fallacy helps to hide 'latent motivations' which Dupont argues include gaining the appearance of professionalism and having more control over lower ranks (Dupont, 1999). They may also include fiscal saving that result from decreased insurance claims against the policing organisation and the possibility of decreased litigation for use of excessive force.

The fallacy of 'novelty' represents the belief that innovations are better simply because they just must be. As Dupont points out, 'Policing is immersed in societies which never stop develop(ing), produc(ing) and market(ing) new technologies' (Dupont, 1999: 5). It is natural for police to follow suit, and for weapons manufacturers to enter and profit from such a climate.

The 'surface plausibility' fallacy draws on both 'common sense and wishful thinking to justify the unconditional adoption of new technologies' (Dupont, 1999: 5). This can result in bad science passing for good science, and encourages the acceptance of 'quick fixes' to difficult social problems.

The 'free lunch' fallacy allows collateral damage or unforeseen costs to be downplayed or ignored. For the relationship between police and communities, this fallacy can have the most deleterious consequences. Interplaying with this is the 'quantification' fallacy that allows easily measured criteria to feature most strongly in analyses of costs and benefits. In other words, some costs are downplayed while others (often fiscal) are given prominence in the evaluation of technologies.

The 'technical neutrality' fallacy serves to eclipse considerations of the moral and ethical consequences of the use of technology. This has a special resonance when it is weapons technology that is being considered, as is the case in this thesis. As Dupont explains, this fallacy supports the construction of a new reality where, if people fail to comply with innovative methods of doing justice, then that is their own fault and not the fault of the method itself, or of its agent, regardless of how repressive that method or agent may be (Dupont, 1999).

The fallacy of the fail-safe system fuels perceptions about the reliability of technology. In conjunction with the others already described, this fallacy serves to mute people's ability to ask critical questions about the consequences of technology. In relation to sublethal weapons, this fallacy helps explain why operational limitations resulting in danger for the operator of the weapon have been so underplayed in debates about the utility of such weapons.

The final fallacy is that of 'ignoring the recent past'. The previous discussion of OC spray illustrates the consequences of this particular bad habit. The failure to learn lessons from past experience is persistent in policing. For instance, it is apparent that most of the core problems that technological innovations were supposed to fix have either remained or given way to a whole new set of problems. As Dupont (1999) argued, while radios and cars were designed to improve relations between the public and police by making police more accessible and available they instead created greater distance and resulted in greater pressure on police to respond to relatively trivial calls for assistance, where police often can do little to help, other than to record a complaint (Dupont, 1999). Arguably, this has added to public dissatisfaction with the performance of police as well as driving up crime rates and causing clear-up rates to drop. A corollary of the reliance of police on cars has also been the incidence of high speed pursuits and resulting deaths and injuries to police and public (Dalton, 1998; Harris, 2012; Lillebuen, 2012).

Other problems with new technologies include the likelihood that evaluations of their efficacy will be driven by cost-benefit analyses or other measures that support police (and

sometimes manufacturers) objectives, rather than more significant performance indicators relating to their impact on community safety or satisfaction. Dupont argues that 'rigorous evaluations and rational debate are often sacrificed on the altar of the 'quick fix' to old problems' (Dupont, 1999: 5). Certainly, problems relating to CEW use and design are downplayed in the debate, while benefits are exaggerated. So while CEWs are vigorously marketed on their ability to reduce workplace injuries to officers, deaths that occur are blamed on 'Excited Delirium' or heavy drug use. Another key belief about CEWs is that can reduce police reliance on lethal force. However, evidence to support this belief is scant and inconclusive, as the following section will demonstrate.

REPLACING LETHAL FORCE? ASSESSING THE EVIDENCE

In Australia, police shootings have been a major factor igniting flashpoints in the drive towards the general issue of CEWs. Families of those shot by police often express a belief that CEWs would have prevented the death and have provided support for those interests seeking the weapons broader adoption (see for example Farouque, 2009). The notion that people may still be alive had police had access to CEWs is pervasive despite little available evidence that sublethal weapons actually reduce the number of police or citizens killed during confrontations (Bailey, 1996; Ireland, 2002; The Canadian Press, 2008). Nonetheless, the rhetoric of 'saving lives' serves to garner public support for alternatives to firearms, making independent research into sublethal weapon's measurable impacts of great importance. More such research will be needed before we can be confident that sublethal weapons have any impact on the incidence of lethal force although it is clear that this notion is heavily enshrined in CEW orthodoxy

Rather than being framed as an important question for both policing organisations and researchers in this field, the potential of CEWs to reduce the incidence of lethal force used by and against police seems to be an asserted truth. In fact, truth in this domain is very difficult to establish. In part this is because it is far easier to measure actual harms than to assess harms avoided. This is a perpetual problem associated with attempts to evaluate the outcomes of particular policing tactics. Even in instances where sublethal weapons are used with a non-fatal outcome, it is almost impossible to measure their impact in relation to other tactics that may have been used. For this reason, knowledge of this important aspect of the outcomes of CEW use is not well established, although attempts must still be made to measure better and worse alternatives in terms of police use of force.

The first research of this kind looking specifically at sublethal weapons is Bailey's 1996 study. Bailey (1996) used bivariate and multivariate techniques to measure the effects of the availability of 'non-lethal' devices on justifiable homicides by police in the United States. He considered jurisdictions with a 1990 population of 100,000 or more where non-lethal weapons were authorised comprising electrical, chemical, impact, restraint and 'other' types (the nature of these 'other' weapons was unspecified they were excluded from Bailey's analysis as only 6.6% of the sample utilized them). Bailey's data did not support the

conclusion that making sublethal weapons available reduced rates of justifiable homicide by police. In other words, use of lethal force was not reduced (Bailey, 1996: 549). Bailey qualifies his finding with the observation that data adequacy was limited to what police made available (and accurately recorded) but this is not a new limitation in use of force analyses, rather it is a very common problem that will be encountered by future researchers unless careful and accessible record keeping practices are maintained by police. Ensuring that adequate records are kept by police will perhaps only result when the technofallacies surrounding CEWs are better and more widely understood.

Bailey also notes that lethal force may not be the only important variable to consider, but firearms discharge resulting in injury or a 'near miss' should also figure in future analyses. If such weapons do reduce the need for lethal force, it is important to also establish the extent to which they reduce the incidence of firearms being drawn. This would be difficult to research and would rely on strict and accurate record keeping by police, which is an entirely separate set of challenges from those considered here.

A more recent study of this issue, by cardiologists Lee, Vittinghoff, Whiteman, Park, Lau and Tseng (2009) tells us more about the relative safety of CEWs. This research showed that in-custody deaths actually increased following the introduction of CEWs, with no significant reduction in officer injuries. The research gathered data about sudden in-custody deaths from 50 Californian policing agencies for a period of 10 years, 5 prior to CEW acquisition and 5 after. Reflecting the Australian experience to date, which is discussed more fully later, the results showed that over 6 times as many deaths not involving firearms occurred in the first year after introduction and then fell back down in subsequent years. Firearms related deaths also increased, but less dramatically, even though the rate was more than double the pre CEW acquisition period. One explanation for these findings is that officers took time to become aware of potential dangers and altered their methods of use following the initial spate of deaths, or following the tightening of policy, or following public outcry. The authors also speculate that 'early liberal use...may have contributed to these findings, possibly escalating some confrontations to the point that firearms were necessary' (Lee et al, 2009: 3). This study is the only one of its kind so far, but provides a significant counterpoint to Taser International's argument that their product is completely safe.

Further evidence from the USA shows that claims about CEWs reducing injuries and deaths are not borne out by experience in the field. For example, Rockford police ceased to use the CEWs they had purchased in 2009, following the new warnings about the dangers of chest deployments (TASER International, 2009). Since that time the rates of assaults against police have declined, as have charges of resisting arrest and obstructing police (Green, 2010). Officers have instead been provided with eight hours of extra training in crisis intervention strategies, which emphasises communication techniques (Green, 2010). This suggests that other techniques can achieve the same or perhaps better outcomes than CEWs lay claim to.

Australian data supports these findings. The Corruption and Crime Commission (CCC) in WA reported a 22% increase in officer injuries and a doubling in the use of firearms in the 2 years post-introduction period (see CCC, 2010). Reports from NSW suggest that the use of firearms by police has remained static since the introduction of CEWs there (Tovey, 2011). This data can be used to question the orthodoxy that has been infused in the public debate by weapons marketers.

This orthodoxy requires that 'CEW proximate' deaths, which continue at a rate of around one per fortnight in North America, be explained in a way which exonerates the weapon. This is achieved by Taser International by way of a syndrome known as 'Excited Delirium', purportedly a side effect of intensive cocaine use. 'Excited Delirium' is a relatively new term for a condition characterised by agitation, confusion, paranoia, irrationality, hyperactivity, profuse sweating, increase in body temperature, constant motion, imperviousness to pain, heavy breathing and sometimes unpredictable violence. Many medical professionals remain cynical about the existence of this condition (Yeung, 2009). Some argue that if it does exist, then it should become part of police training and policy to recognise the symptoms and to understand that electrical currents passing through the body are clearly contraindicated. While the term is not yet frequently used by pathologists and Coroners in Australia, there is evidence that it is beginning to be introduced into local parlance. The syndrome was raised as an issue in the inquest into the death of Michael Eddy in 2004 (further discussed in Chapter Six). It has recently been raised as a possible cause of death of a man who died in the back of a police van in Melbourne in late 2009 after OC spray was used by police during his arrest (Cresswell, 2011). The inquest in this case is yet to take place.

In the Eddy inquest expert testimony was given about 'Excited Delirium' and the Coroner commented that it was 'likely that the bio-chemical effects on his heart of high level amphetamine use and the sudden cessation of extreme exertion contributed to the fatal outcome. I accept Professor Cordner's view that it is not possible to apportion the extent to which each of these factors contributed to the death' (Office of the State Coroner, 2008: 25). The cause of death was found to be 'restraint asphyxia compounded by the effects of amphetamine abuse and extreme exertion' (Office of the State Coroner, 2008: 25). This conclusion bears a strong resemblance to the rhetoric around 'Excited Delirium', as explained below, with one important difference. The medical opinion proffered was that it was not possible to disaggregate the contributors and 'Excited Delirium'-like symptoms could *not* be definitively labelled as the problem. While 'Excited Delirium' is still a murky concept in Australia, invoked only twice that I am aware of and each time in relation to a death proximate to capsicum spray use, an entirely different pattern is evident in the USA, where Taser International appears to exert a much greater influence.

'EXCITED DELIRIUM'

Taser International argues that the symptoms of 'Excited Delirium' have been linked to deaths in custody for over a century. They say that they were known as Bell's Mania for some time, after Luther Bell, a pioneering researcher (see Kroll, 2008). Bell published on deaths in asylums in 1849 in the *American Journal of Insanity*, referring to the rare condition as 'agitated delirium' or 'exhaustive mania'. Bell described patients with bizarre behaviour, similar to a manic episode, who would suddenly become very hot and then have cardio-respiratory failure and collapse (Ligaya, 2007). Taser International drew attention to this condition as a way of demonstrating that suspects who die after being shocked with a CEW would have probably died anyway and that 'Excited Delirium' is the chief cause. They support this with examples of young, fit, healthy people who drop dead from respiratory failure with no apparent cause. They argue that those who attempt to link CEWs with death are 'anti-police' and misinformed (Kroll, 2008). Links between Tasers® and death are, according to Mark Kroll, a self-proclaimed CEW expert (and Taser International Board Member) apparently a function of misunderstanding electricity, misapplying logic and media sensationalism. It is argued that no actual links exist and 'Excited Delirium' is really to blame.

As argued by the author of the Excited-delirium.com blog site (devoted to this issue and the task of balancing the bias evident in the public debate) there exists a curious temporal asymmetry around deaths associated with CEWs and 'Excited Delirium'. This is demonstrated through the fact that people seem to die most frequently from 'Excited Delirium' just *after* the CEW use and rarely just *before*. The blogger argues that an equally large number of deaths during police encounters should occur in the absence of CEW use as they do after a CEW deployment but there is simply no evidence that this occurs. More research on this temporal issue is needed in order to develop a better understanding of the link between CEWs and deaths, which continue to occur at the rate of several per month in the USA where CEWs are used most widely (see truthnottasers.blogspot.com).

The term Excited Delirium does not appear in the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV-TR), although 'delirium' does. There is little doubt that spontaneous death is a significant risk when police use force in response to the symptoms described above. An independent reading of the evidence suggests that this risk is compounded by the deployment of a sublethal weapon. To sum up the relevant medical issues that underscore this debate, three factors are significant. These relate to breathing or respiratory intake, to the pH level present in the blood and to the placement of the CEW barbs in relation to the heart.

Respiration removes toxins such as lactic acid from the blood and when this process is inefficient, cardiac arrest can result. Taser International maintains that CEW recipients continue to breathe during the delivery of electric current (Ho, Dawes, Bultman, Thacker, Skinner, Bahr, Johnson and Miner, 2007). However, animal studies of CEW effects (primarily

conducted using pigs) have demonstrated 'severe metabolic and respiratory acidosis' when CEW shocks are delivered repeatedly (Dennis, Valentino, Walter, Nagy, Winners, Bokhari, Wiley, Joseph and Roberts, 2007). 'Excited Delirium' has been linked to metabolic acidosis (raised pH in the blood causing cardiac arrest). Repeated, sustained and multiple applications of a CEW have also been linked (Mukasey, Sedgwick and Hagy, 2008).

It is arguable that the reason why CEW recipients who are also suffering from the spectrum of symptoms described by 'Excited Delirium' frequently die is because limited respiration (caused by repeated, multiple or prolonged CEW application) fails to remove toxins from their blood adequately. The findings in the Heston case, the first successful action for wrongful death against Taser International, support this view (this is discussed in further detail on p. 82). This is important as it indicates that CEW use should be restricted (or at least police cautioned against using the weapon) when symptoms like those of 'Excited Delirium' are present. Discovering the truth of this conundrum is a central aspect of understanding CEW use adequately and formulating responsible policy accordingly.

At present, it is not the laboratory that is producing our most useful knowledge in this area, but the field. Lives continue to be lost and guidance to police continues to be refined in response. In the meantime, Taser international continues to feather the nests of its shareholders. The medical studies of this phenomenon are contradictory and their technicalities make it very difficult for the social scientist to determine their validity. What is significant is that such contradiction exists. The best conclusion is that the current research is inconclusive on key safety issues. On this basis, the extent to which Taser International has gone to discredit research that contradicts the company line, as well as any medical examiners who may choose to take heed of research that is critical of CEW safety is disturbing (Anglen, 2008).

In relation to the dangers of metabolic acidosis, Mark Kroll argues that 'studies suggest that the exposure to ECDs does not affect the compensatory mechanisms of the respiratory system' (Kroll, 2008: 52). He does not mention that the studies are carried out by Taser International affiliated doctors.

However, a report by the US National Institute of Justice published in the same year put a very different slant on the available research:

*Studies examining the effects of extended exposure in humans to CED are very limited. Preliminary review of deaths following CED exposure indicates that many are associated with continuous or repeated discharge of the CED. The repeated or continuous exposure of CED to an actively resisting individual may not achieve compliance, especially when the individual may be under drug intoxication or in a state of excited delirium. The medical risks of repeated or continuous CED exposure are unknown and the role of CEDs in causing death is unclear in these cases. There may be cases in which repeated or continuous exposure is required but **law enforcement should be aware that the associated risks***

are unknown. Therefore caution is urged in using multiple activations of CED as a means to accomplish subdual (Mukasey et al, 2008: 4, emphasis added).

A final observation about 'Excited Delirium' is that it is possible to suggest that Taser International have played a significant role in its creation. As mentioned, it is not found in the DSM-V and seems to be propagated largely by researchers or analysts with a specific interest, either personal or financial in Taser International itself. For instance, an organization known as the Institute for the Prevention of Deaths in Custody (IPICD) was founded by Taser International's chief litigation counsel, Michael Brave (Yeung, 2009) who also registered the domain name www.exciteddelirium.com, which leads directly to the IPICD website. The IPICD regularly holds conferences around North America at which Taser International affiliated researchers present their 'findings' and generally expose 'Excited Delirium' as the leading cause of in-custody deaths. The IPICD also hold sessions at Taser International headquarters in Arizona where it teaches police to recognize the symptoms of 'Excited Delirium' and argues that CEWs are the best tool for subduing such agitated individuals. John Burton, the Heston family's lawyer has commented on the apparent Taser International/IPICD link as follows: 'These guys want to help police stop killing people, and they're trying to build a liability defence for when they do. The two things are in direct conflict' (Yeung, 2009). It seems clear that the IPICD is not only about preventing deaths in custody but also preventing successful litigation against Taser International. In doing so they shift the focus onto police tactics as the key cause of sublethal weapons related deaths rather than the Taser® product itself.

The discussion will now turn to the history of Taser International. This company is worth some attention in the context of this phronetic research, as it provides a necessary context for understanding the issues arising from their use in the contemporary, local setting. The acquisition of the unique electrical circuitry that produces the stun effect from its developer was the first step towards domination for this company, which has played a significant role in establishing the technology's place in modern policing. The company has built an orthodoxy around CEWs, resisting and suppressing criticism of its product through rigorous litigation.

AN ELECTRIC RIFLE FOR POLICE

The story of Taser® starts in the pages of a young teenage boy's adventure story. *Tom Swift and his Electric Rifle* was published in 1911 as part of a series of novels about the young inventor. One of its readers was a lad named John 'Jack' Cover Jnr. who grew up to be a nuclear physicist. Volume 10 of the original series tells of the time when young Tom Swift invents a gun capable of firing bolts of electricity. The charge could be set to 'stun' or 'lethal' as needed and proved most efficacious in subduing elephants and hippopotami during Tom's adventures in Africa. This notion, of a non-lethal electrical charge that could temporarily disable an animal or human being until escape or control was achieved,

simmered away in Cover's mind for 60 years until 1972, when he filed to patent a Weapon for Immobilization and Capture (Rejali, 2007; also see US Patent No 3803463).

Electricity held a strong fascination for inventors throughout the second half of the twentieth century, evidenced by the bewildering array of devices that Darius Rejali documents in his important examination of the history of torture as being patented during that time (Rejali, 2007). From 'electrified sticks' for postmen to 'electric spears' for soldiers, all manner of electronic self-defence devices were dreamt up. In Rejali's words, had the scope of ideas from this time come to their full fruition, 'For stun corporations, this world would have been utopia; for Amnesty International, it would be dystopia' (Rejali, 2007: 227). The potential for electricity to be used for the purpose of social control in particular was well recognized by early innovators, so Cover was not alone in his interest.

In the late 1960's, Cover's ambition aligned perfectly with a series of United States government recommendations urging a reduction in use of lethal force by police (Rejali, 2007). For example, in 1967, the President's Crime Commission on Law Enforcement and the Administration of Justice called for more funding to allow policing bodies to embrace the 'scientific and technological revolution' in tackling the problems of civil unrest and disorder that characterized these times (Davison, 2006). In 1968, the *Omnibus Crime Control and Safe Street (sic) Act* directed millions of federal dollars towards this end, making the climate encouraging for anyone with feasible ideas in the area of 'non-lethal' weaponry (Davison, 2006). By 1969, Cover, recalling his childhood hero's exploits, had assembled the basic plan for a device that fired darts attached to wires through which current could be delivered (Rejali, 2007).

In the same year, discussing riot control techniques, Applegate (1969) presented what turned out to be an accurate forecast:

More Buck Rogers developments in nonlethal equipment and allied fields, relating to the control of mob and individual violence, are already on the drawing boards or yet to come (Applegate cited in Davison, 2006: 3).

By the dawn of the 1970s, the 'need' for nonlethal weapons in policing had clearly been established, and the impetus for their development was rising. Rejali's (2007) discussion of electrical stun technology addresses the fascinating question of why Tasers® in particular have flourished while all manner of other devices never came to fruition. He argues that a number of key factors combined to make this so. He describes a rising pressure on western democracies to appear humane and accountable in meting out punishment that peaked after the Second World War, making the invention of an electric 'non-lethal' weapon almost inevitable. The cultivation of moral superiority was an essential aspect of western nations' capacity to condemn the regimes of others and electricity was especially attractive for its capacity to leave little evidence of injury.

Rejali's thesis is essentially that the greater the levels of apparent scrutiny and accountability, the greater the urge to employ 'clean' modes of torture and control – modes that leave no discernible marks or injuries: thus, liberal democracies are *more prone* to adopt sublethal weapons for general duties policing than dictatorships. This factor is acknowledged in the British Council for Science and Society's seminal report, *Harmless Weapons* (1978) which discusses crowd control weapons ('irritant smokes' and 'kinetic rounds'). It states:

Such weapons have a special appeal in countries where the activities of police or military in the maintenance of public order are controlled by justice and legality. Constraints of this kind upon the use of coercive force are of course not unique to any one type of society, although they are most widely applied, and most publicly discussed, in the more democratic ones. In these cases, there is general recognition of the dangers of the indiscriminate or brutal use of coercive force, however great the immediate provocation: for such methods can undermine the legitimacy of the authorities that employ them. They can thus weaken the consensus that is necessary for an orderly and peaceful public and political life to be conducted without frequent and forceful police intervention. Such intervention could then tend to produce a vicious circle, ever more repressive force being required to control increasingly alienated sections of the population.

*The new kinds of crowd control- weapon may appear to offer a technical solution to this political problem: **they could enable physical coercion to be used without any danger of serious personal injury to the victims, or of political discredit to the agents who use them.** Such weapons may therefore be thought of as 'benign' or indeed as 'harmless'. For it is intended that they should be free of harm, both in respect of physical injury during their use, and of the political consequences of that use (Council for Science and Society, 1978: 6, emphasis added).*

There is a definite reticence towards the use of electrical weapons evident in the British report, whose stated purpose is to begin public discussion of an issue which the authors felt had not received any substantial debate in Britain. The Taser® device is mentioned only in an Appendix of the Harmless Weapons report, and then very dismissively since it is considered too obviously open to abuse for it to be widely adopted (Council for Science and Society, 1978).

Nonetheless, Cover's dedication to the development of a non-lethal alternative to firearms involving the use of electricity persisted for over 35 years. He encountered significant hurdles in these years such as devising a portable power source, capable of generating a voltage that could penetrate clothing. The circuitry system he finally produced emitted high intensity, short duration electrical pulses that caused the stun effect, the key to the appeal of stun technology, and also to the CEWs eventual success. This circuitry was patented by Cover in 1977, and was incorporated into a device he called the Public Defender® (Rejali, 2007). Since this early version of CEW technology, shaped like a torch, was first

demonstrated to police in 1970, the Taser® has undergone significant and repeated redevelopment in the ongoing effort to produce a safe, marketable electric weapon. The Public Defender® has been followed by the TF-76®, the TF-76GX3®, the PS-83®, the TE-86®, the Air Taser®, the M26®, X26® and recently the X3®, X2® and the XREP® (a wireless cartridge designed for shotguns). Each re-issue has sought to remove or reduce particular failings of the model that went before.

In 1970, police showed little interest in the weapon, especially since it was feared that it might fall into the hands of potential offenders (Rejali, 2007). Early design problems also meant that the device sometimes malfunctioned and shocked the user. Rejali argues there was another context to the initial rejection of Tasers® by police as a law enforcement tool. This concerned the earlier US experience of crowd control using cattle prods which meant 'the public was deeply hostile toward any electrical weapons in policing' (Rejali, 2007: 227).

When electrified batons or 'prods' were used during civil rights protests, the tactic attracted such negative commentary in the media that electrical technology became entirely absent from public protest policing from the 1970s through to 2003, when CEWs were used by police in Miami during Free trade protests, with similar condemnation by commentators (Rejali, 2007). Rejali (2007) explains that electric batons never found a foothold in US policing, and stun gun technology too very nearly disappeared. Cover's business, called Taser Systems, floundered. His product, classified as a handgun because it was propelled by gunpowder, could not be used without a license and sales were confined to gun dealers. Also, at this early stage, Cover freely admitted that Tasers® had the capacity to be lethal (Rejali, 2007: 233).

Clear calls for the improvement and development of non-lethal weapons (beyond chemical irritants) were still being heard in 1972, when a report by the Security Planning Corporation, *Nonlethal Weapons for Law Enforcement: Research Needs and Priorities*, argued that exaggerated claims and insufficient testing made many sublethal weapons proposed to police unsuitable (Davison, 2006). The US Army Human Engineering Laboratory began research on three categories of sublethal weapon: kinetic, chemical and electrical. It found in favour of electrical weapons, but noted the lack of public acceptance as a particular problem (Davison, 2006).

Cover's Public Defender® sold around two thousand units (Rejali, 2007; Davison 2006). Then his company, Taser Systems, made a deal with the Hertz company to market the weapon exclusively in California and police agencies began to purchase the device (Rejali, 2007). Things looked bright for Cover's innovation. But soon objections to the weapon were raised by the National Rifle Association and California classified Cover's device as a 'potentially lethal weapon', banning them from use in California in late 1975. This was followed by an investigation by the Consumer Safety Products Commission (CSPC) and a temporary national ban on sales to consumers. The ban was lifted in 1976 and the CSPC concluded that the weapon's 'maximum output was 10 per cent of lethal value, though

individual susceptibility varied and the hazard grew with repeated shocks' (Rejali, 2007: 234).

The weapon underwent more redevelopment, including the addition of a handle which made it more closely resemble a handgun: this was called the TF-76®. Some police departments in the US began to utilise the new technology, but so did some offenders who used them in robberies and muggings. Opposition to the weapons grew amongst local communities and they were banned in other jurisdictions including Hawaii, Michigan, New York and Canada (Davison, 2006; Rejali, 2007). Cover's Taser Systems was forced into bankruptcy, due to its classification as a 'gun' which brought with it a ream of red tape that proved a serious disincentive for potential purchasers, effectively blocking the civilian market. The company was then purchased by an investor who continued to market Taser® technology under the name Tasertron (Funding Universe, 2009). Tasertron struggled financially, but continued to manufacture their seven watt Taser® (followed by an eleven watt model) throughout the second half of the 1970's

LOS ANGELES: THE TESTING GROUND

The company's future was probably cemented when the Los Angeles Police Department (LAPD) became the first major police department to trial and finally purchase CEWs in 1980. Rejali links this acquisition to the public exposure of use of excessive force in the LAPD (Rejali, 2007). Also significant was a controversial police shooting in 1979 when LAPD officers had shot and killed Eulia Love, a 39 year old black woman (Fyfe, 1981; Rejali, 2007; Meyer, 2009). Following a review of this incident, an external civilian inquiry overturned an internal departmental inquiry's finding that the death was justifiable and in accordance with policy. Although neither officer was charged, Eulia's children received compensation of over US\$700,000, a huge amount for the time (Fyfe, 1981). Review of this incident by the Board of Police Commissioners recommended 'continued research into the use of intermediate and/or control devices which have the potential to significantly reduce reliance upon deadly force' (cited in Meyer, 2008:3). This apparently prompted wider testing and acceptance of available 'non-lethal' weapons, including CEWs and chemical sprays. Tasertron's product was field tested by LAPD officers in 1980 and adopted in 1981 for use by field sergeants only (Meyer, 1991; 2008).

Rejali argues that the overzealous use of chokeholds by Los Angeles police officers also provided the impetus to explore other use of force options. Chokeholds were banned from the LAPD in 1982 following fifteen chokehold related deaths in police custody in the previous seven years. Police moved to the use of metal batons, but complaints of excessive force soared and litigation costs rose from \$891,000 to \$11.3 million dollars (Rejali, 2007). They thus purchased a further 600 Tasertron units, adding to the 200 already purchased, and made them available to all officers who had lost permission to use the chokehold, which they reportedly considered their most effective tactic (Meyer, 2008).

That the LAPD had experienced problems with injudicious use of deadly and excessive force made them a prime target for Tasertron's marketing advances. Cover, who was still affiliated with Tasertron, used these circumstances to reinforce to police the necessity of a non-lethal, 'clean' device such as a Taser®. Even in their still primitive form, the weapons appealed to police who sought a use of force method that could fill the gap between verbal commands and hand to hand tactics and also to avoid litigation and liability for excessive force. This aspect of the weapon's appeal continues to be actively promoted by Taser International as the next chapter will discuss.

By the mid-1980s four deaths following CEW use had occurred in Los Angeles (Seiler, 1986). Tasers® were termed 'A New Emergency Medicine Problem' in a 1985 article authored by a doctor from the University of Southern California Medical Centre in Los Angeles (Koscove, 1985). This article is the first to identify CEW related injuries as 'a new and increasingly frequent' concern for emergency medicine personnel (Koscove, 1985: 109). Noting that the weapon was being tested by over 350 policing agencies in the United States, Koscove's research anticipates that knowing how to treat CEW related injuries will become necessary for emergency department personnel. He lists possible clinical concerns as:

weapon fired barb injury, barb removal methods, injury secondary to electrical current, ventricular fibrillation, possible interactions with implanted pacemakers and injuries secondary to weapon induced falls (Koscove, 1985: 109).

It seems that at the time Koscove's wrote this article no major injuries had yet been reported. The first finding of Taser® as a contributing factor (following the death of Cornelius Smith which is further discussed below) was made in the same year that Koscove's prescient article was published. By 1991, the number of CEW proximate deaths in the Los Angeles area had grown to sixteen (Kornblum and Reddy, 1991).

The persistent problem of multiple contributing factors in CEW proximate deaths is clearly present in the aftermath of the first ever incident where a CEW was listed as a cause of death. This involved 35 year old Cornelius Garland Smith who was 'tasered' by LAPD officers on 11th April, 1985. Smith, apparently suffering from PCP intoxication, was found 'writhing on the ground and screaming' by police, who deployed a Taser® (Williams, 2008: 37). How many times the Taser® was fired was not recorded, although we know that just one cassette was deployed (demonstrating not only the clear utility of the data recording capacities of modern Tasers® but also the severely limited knowledge available to early forensic examiners investigating deaths following the use of CEWs). Smith was restrained and taken to hospital where he was pronounced dead. Smith's death, along with being the first officially linked to Tasers®, is a good example of the factors which have allowed Taser International to deflect attention away from the possible adverse effects of their product. It is discussed in detail below.

THE FIRST CEW PROXIMATE DEATHS

Knowledge of Cornelius Smith's death in 1985 is documented in five separate sources (Seiler, 1986; Ordog, Wasserberger, Schlater and Balasubramaniam, 1987; Kornblum and Reddy, 1991, Allen, 1992, Williams, 2008) These include media accounts, a study of 'Taser related injuries' published by emergency department doctors in 1987, an article authored in 1991 by the Chief medical examiner-Coroner and deputy medical examiner respectively at Department of the Chief Medical Examiner-Coroner in Los Angeles and also a fascinating letter in response to it from forensic pathologist Terrence Allen (1992) discussed in more detail below. The most recent publication is written by a Texan Police Chief who claims to separate fact from conjecture in Taser® related deaths by conducting a case study analysis and (in an entirely undefended manner) classifying the role of Taser® in each death as excluded, doubtful, possible, confirmed or undetermined (Williams, 2008).

Each of these sources provides a slightly different account of Smith's death. Some provide information that others exclude, but most notably, they offer different details regarding the time between the CEW use and the death. The emergency doctors report Smith's time of death as 25 minutes, the forensic pathologist at 30 minutes and the medical examiners as 45 minutes (Ordog et al, 1987; Allen, 1992; Kornblum and Reddy, 1991). Williams simply says that Smith was taken to hospital and 'there, he suffered a cardiac arrest and died' (Williams, 2008: 37). This short discussion of Smith's death bears out some of the key medical issues stemming from CEW use, and is emblematic of the problems that continue to be encountered by forensic pathologists and Coroners to the present day.

The incomplete knowledge about the lapse of time between the deployment of the Taser® and Smith's death is significant as a lapse in time between CEW deployment and cardiac death is a cornerstone of arguments made against the possibility that CEWs can cause death. Taser International argues persistently that any electrical related death must occur within 1-5 seconds, and that *ventricular fibrillation* (erratic electrical impulse) is always induced in such cases rather than *asystole* (no electrical signal) (Kroll, 2008: 23). If death is not almost immediate, Taser International argues that electricity is not implicated. In dismissing studies that induced ventricular fibrillation in swine using Tasers®, Kroll argues that 'reports of custodial deaths consistently show that the presenting rhythms are...asystole' (meaning no electrical impulses are present) and concludes that it is therefore not possible for ventricular fibrillation to be induced by a Taser® (Kroll, 2008: 33). Delayed death is also considered a clear reason to exclude the CEW from playing any role in a death throughout Williams' research (even though the data is very vague on this detail in each of his case studies). This reasoning does not account for broader medical knowledge that asystole heart rhythm *always* follows ventricular fibrillation that is untreated or unsuccessfully treated, and alone it is not a reliable indicator that electricity was not involved in the outcome (Caggiano, 2009). Despite the claims of Taser® advocates, the presence of an asystole heart rhythm does not in any way dispel the possibility that

ventricular fibrillation was once present. Still, Taser International spokespeople assert their view on this matter repeatedly, and most critics are not in a position to argue the point.

Despite uncertainties about the time of his death, some aspects of Smith's pathology are clearer. We know, for instance, that the medical examiner found Smith had a pre-existing heart condition and the death was attributed to this factor and the circumstance of being 'tasered' while under the influence of PCP. It was, however, ruled a homicide (Kornblum and Reddy, 1991). The Los Angeles District Attorney found the officer's decisions in Smith's case to be lawful. Over two decades later, Williams finds the role of the CEW as a cause of death 'excluded/doubtful' because:

Smith did not suffer cardiac arrhythmia until officers had taken Smith to a local hospital. Consequently, because Smith did not collapse immediately following the application of the TASER pulse, indicating that the electrical current did not significantly affect the rhythm of Smith's heart, and there was no evidence of electrical injury (Williams, 2008: 38).

He adds:

It is entirely possible that the TASER pulse contributed to the physiological stress Smith experienced that ultimately caused arrhythmia. However, considering Smith's pre-existing heart problems, the level of his exertion, and his PCP intoxication, it is questionable whether any other form of restraint would have produced a different result. Therefore the role of the TASER device as a significant contributing factor is doubtful (Williams, 2008: 38).

William's book makes similar justificatory statements about Tasers® throughout. This reasoning is typical of that which is repeatedly used to refute suggestions that CEWs might contribute to death, and which help build and maintain the orthodoxy which competes for dominance in what Becker (1967) would term the 'hierarchy of credibility' around the weapons. The conclusions are not supported by a clear methodology, and its findings are both speculative and subjective.

The first empirical study of Taser® related harms (authored by emergency department doctors some of whom were present at the time of Smith's death) examined patients who were 'shot with a Taser' between July 1980 and December 1985 (Ordog et al, 1987). Smith was one of three deaths included in the sample. The researchers compared mortality and morbidity rates to a sample of people shot with handguns, coming to the extraordinary conclusion that Taser® had 'probably saved the 48.6% of patients who may otherwise have been shot' (Ordog et al, 1987: 108). 218 patients were included in the 'tasered' sample and 22 in the 'gunshot' sample. Using calculations of standard deviation, chi-square and a computer program (called ANOVA) to compare unequal groups, the research found a statistically significant difference between permanent morbidity rates of those 'tasered' (0%) and those shot by police with handguns (50%) and also in mortality rates, 1.4% and 50% respectively. From these figures, it is a little unclear how the magical figure of 48.6% of

lives saved was arrived at except that this is the difference between the two mortality rates. The study is based on the false assumption that those 'tasered' would otherwise have been shot and that the resulting injuries would have been fatal. Despite the flawed logic of this study, at the time it provided an important feather in the Taser® marketer's cap in terms of supporting the notion that their new weapon saves countless lives. The foundations of CEW@ orthodoxy began here.

In relation to the three Taser® proximate deaths included in the sample, including Smith's, the authors argue that other factors were most likely to have been the cause. They note high levels of phencyclidine (PCP) in all cases and a heart condition in Smith's. No information is provided about the number of cycles involved in each case. All three of the deceased suffered cardiac arrest, arriving at the emergency department in asystole. The two with no history of heart problems reportedly suffered cardiac arrest five and fifteen minutes after being subjected to a CEW. According to these authors Smith first suffered cardiac arrest 25 minutes after the CEW deployment (Ordog et al, 1987: 75). The position of the barbs on each man's body is noted, with none of the deaths involving deployment across the chest¹⁵.

Ordog et al's research is also significant as it gives us a picture of the characteristics of those against whom CEWs were deployed in the early years of their use. Perhaps unsurprisingly, they closely mirror contemporary patterns, discussed in detail in later chapters, of use against drug affected, mentally ill and otherwise vulnerable people. The data suggests that sublethal weapons have been utilised primarily for the control of uncooperative drug or alcohol affected people, along with those with a psychiatric disorder since they were first adopted by police. Ordog et al's data shows that only 5.9% of the 'tasered' patients were released from hospital into police custody, while 14.9% were admitted to the hospital for further treatment, 29.7% were admitted to a psychiatric hospital, and 48.8% were discharged from hospital and sent home. The remaining 1.5% were deceased. While the authors note that nearly half of the sample was 'lucid enough to be discharged', it would be of benefit to know if these patients, and the other 44.6% admitted to hospital or psychiatric care, were subsequently charged with any offence (Ordog et al, 1987: 75). Still, it was possible to begin to form a picture of the likely characteristics of those against whom CEWs are used most widely by police as early as 1987.

While Smith's death is often cited as the first Taser® related death, there was a death previous to his. Vincent Alvarez died in Los Angeles on August 10th 1983. Alvarez, a 27 year

¹⁵ This is significant because Taser International issued a Training Bulletin in 2009 warning against chest deployments. The reason they gave for the warning was to reduce the liability of police when deaths occurred. They have never made a direct admission that targeting the chest increases the chance of a fatal outcome.

old Latino, was subjected to a CEW following his arrest when police saw him 'behaving strangely shaking his body while holding onto a telephone pole' (Williams, 2008: 36). Uncooperative and assumed to be under the influence of drugs, Alvarez was handcuffed, bound at the feet and put into a police car. Banging his head on the window, Alvarez reportedly 'demonstrated exceptional physical strength', according to Williams, resulting in a CEW trained officer being called to the scene and deploying one cartridge into his back (Williams, 2008: 36; Kornblum and Reddy, 1991).

Williams reports that 'officers subdued Alvarez and took him to the jail ward of a local hospital, where he later suffered a full cardiac arrest and died' (Williams, 2008: 36). The time between Alvarez's death and his being tasered is reported as 15 minutes by both Kornblum and Reddy (1991) and Ordog et al (1987), with the latter saying that the heart rhythm was asystole on arrival. Williams' research, which cites neither of the two early medical studies, excludes the device outright, arguing that, 'although the available evidence did not specify how much time passed between the application of the TASER and Alvarez's collapse, *it was clear* that officers had time to transport him to the jail ward of the hospital before he suffered the dysrhythmia' (Williams, 2008: 36, emphasis added). In fact, as discussed, the reality is not at all clear, although the death was officially ruled accidental, with dysrhythmia and PCP cited as the cause; the CEW, however, was not implicated (Kornblum and Reddy, 1991: 441).

Next to die was Raul Guevara, in January 1984 (Kornblum and Reddy, 1991, Williams, 2008). Arrested on charges of receiving stolen property, Guevara was in custody when he reportedly tore a telephone receiver from its cradle in his cellblock, and began to struggle with police trying to retrieve it. Williams (2008) describes the incident thus:

After a shock from the TASER device failed to subdue him, a jailer used a chokehold, placing his forearm across Guevara's throat. Guevara continued to struggle after four jailers wrestled him to the floor. A jailer again applied a chokehold while other jailers placed restraints on Guevara's wrists and ankles. As jailers were loading Guevara onto a gurney, they realized he had stopped breathing. Efforts to revive him at the jail and en route to a hospital failed (Williams, 2008: 36).

Evidently, chokeholds were still popular in jail settings at this time, if not in public policing. This factor along with the struggle reported is proof enough for Williams that the CEW ought to be excluded in this death. The medical examiner blamed 'cardiac decompensation during restraint procedure with blunt force trauma' as the cause of death in this case and ruled it a homicide (Kornblum and Reddy, 1991: 441). Pre-existing heart problems are also noted (Kornblum and Reddy, 1991). Time of death is noted by the medical examiners as 30 minutes after CEW application (though this is more likely to reflect the time that death was pronounced, rather than time of actual death). The CEW is not mentioned as a cause or contributor to the death. Seven months later, a 32 African American man died, followed by

Cornelius Smith in April of 1985 (Williams, 2008). Notably, these first four recorded deaths were all of men belonging to a racial minority.

In Kornblum and Reddy's (1991) research addressing sixteen cases of death following CEW use in Los Angeles County between 1983 and 1987, the role of Taser® is once again considered less relevant to the deaths examined than the role of drug abuse and physical exertion. The authors do acknowledge 'confusion and uncertainty in the minds of pathologists' and considerable variation in the wording of the cause of death' but still downplay the role of the CEW (Kornblum and Reddy, 1991: 447). Thirteen of the sixteen cases are attributed to overdose (cocaine, PCP and/or amphetamine). Taser® is listed in the causes of death in two of the cases, however, the authors of this study seem to actively downplay the significance of this:

Although two cases were certified as being caused by electrical injury, in one of these cases at least, the level of cocaine was sufficient to explain the death. This person was standing in water and was hit with eight Taser darts. The number of darts should not be a determining factor, since the electrical current is not cumulative...this death clearly fits into the cocaine category (Kornblum and Reddy, 1991: 446)¹⁶.

One of the pathologists who cited the CEW as a cause of death was Terrence Allen, whose was very critical of these findings, as discussed below. Again, the language used is so justificatory in the Kornblum and Reddy study that at times it seems quite transparently biased. As mentioned, one of the deaths discussed is Smith's. In relation to this the authors argue that 'the subject's heart condition was such that he could have suffered a fatal arrhythmia from the PCP, the excitement, the electrical stimulation, or a combination of any or all of these factors' (Kornblum and Reddy, 1991: 447). Overall, the authors conclude that the Taser® 'in and of itself does not cause death' (Kornblum and Reddy, 1991: 434).

WHISPERS OF DISSENT

As mentioned earlier, another pathologist from the Los Angeles Medical Examiner's office, Dr. Terrence Allen, published a letter to the editor of the journal that published Kornblum and Reddy's article. In the letter, which is rarely cited in the literature, Allen (1992), who identifies himself as 'the former deputy medical examiner from Los Angeles', strongly criticises Kornblum and Reddy's findings (Allen, 1991: 956). He was present during several autopsies performed on men who had suffered CEW proximate death. His narrative provides a rare insight into the problem of lack of independence in Coronial examinations of

¹⁶ Contemporary evidence about the dangers of multiple deployments makes it possible to question the validity of this conclusion.

such deaths (a problem which clearly requires more attention, since it persists) (Anglen, 2008). For this reason, Allen's perspective is worth examining in some detail.

Allen points out a number of significant weaknesses in the Kornblum and Reddy study, most stemming from what Allen regards as serious omissions. These include not reporting their methods, not mentioning 'some of the more important points of information (about the signifiers of electrical death)', not reporting the location of the CEW barbs or the number and duration of the shocks delivered (Allen, 1992: 956). In relation to the last omission, Allen says 'This is important because the risk of ventricular fibrillation increases not only with the amount of current but also with the duration of its application' (Allen, 1992: 956). With regard to the position of the barbs, he further says, 'The location of the taser barbs or wounds on the body...could aid in determining whether an electrical current may have passed through the heart region'. A similar clarity on these two crucial forensic issues has not, to my knowledge, again been seen since this letter was written. It is as if the knowledge was forgotten, or perhaps obscured and the last decade and a half has been spent relearning it through an increasing number of potentially avoidable deaths.

Writing in an era before the present carefully constructed orthodoxy, Allen candidly uses the term 'taser-associated death' in his letter. He calls one death 'an immediate and direct result of the taser' (Allen, 1992: 957)¹⁷. In accounting for the apparent differences between his assessment of the role played by CEWs in certain deaths and those of Kornblum and Reddy, Allen relates that:

pathologists in Los Angeles were under pressure from law-enforcement agencies to exclude the taser as a cause of death. In Case 6 (of the Kornblum and Reddy study) the autopsy was performed in the presence of six upper-level law enforcement agents who were confrontational and argumentative in their attempts to persuade me that death was caused by drowning in a few inches of water (Allen, 1992: 957).

Allen argues even further that the 16 deaths reported by Kornblum and Reddy should 'at the very least...indicate a failure of the taser as a non-lethal weapon since its use did not prevent fatal results' (Allen, 1992: 957). On his own reading of Kornblum and Reddy's data, questionable though it is, Allen finds 'nine individuals who were alive and active, collapsed on taser, and did not survive'; he argues persuasively that the 'taser' contributed to these nine deaths (Allen, 1992: 957). For Allen 'it seems only logical that a device capable of depolarizing skeletal muscle can also depolarize heart muscle and cause fibrillation under certain circumstances' (Allen, 1992: 957). Further, even in 1992, Allen reached conclusions

¹⁷ Presumably, Allen got away with this irreverence because Taser International had not yet been established, and law was not yet being used to challenge and silence critics.

about the very same vulnerabilities of human physiology in relation to the effects of CEWs that are still being debated today:

Pre-existing heart disease, psychosis, and the use of drugs including cocaine, PCP, amphetamines and alcohol may substantially increase the risk of fatality. Since tasers are most likely to be used on psychotic or intoxicated individuals, in whom the medical history is unknown, the priorities for use of the taser among law enforcement's "nonlethal" armamentarium must be carefully considered (Allen, 1992: 957-958).

Allen's clear and prescient warnings indicate that more could have been known about the potential problems of CEW use had there been less marketing pressure and subterfuge surrounding CEWs. His views, as mentioned are infrequently cited in the literature, represent a rare voice of dissent in what is otherwise an overwhelmingly positive appraisal of the Taser® product amongst prominent research studies. Despite this, the weapons took another decade to really catch hold of the policing market.

LATER MEDICAL RESEARCH

More recent scientific evidence regarding the capacity of a CEW to cause electrical death has continued to build the orthodoxy that there is no established direct link (Strote and Hutson, 2006; Vilke and Chan, 2007; Kroll, 2008; Adams and Jennison, 2007; Mukasey, Sedgwick and Hagy, 2008; Kroll and Ho, 2009). Research from the United States National Institute of Justice, an independent body, found 'no medical evidence to suggest that exposure to a CEW produces sufficient metabolic or physiologic effects to produce abnormal cardiac rhythms *in a normal, healthy adult*' (Mukasey et al 2008, emphasis added). However, it has been demonstrated that in combination with other factors, such as drug and alcohol use, heart conditions, exhaustion or small stature, CEW use has been associated with fatal outcomes (especially when multiply deployed), though the reasons for these deaths have not been made clear and significant conjecture remains, despite Terrence Allen's observations in 1992.

As a large number of the studies supporting the safety of CEWs have been sponsored by manufacturers, their impartiality is questionable (Stanbrook, 2008; Kroll and Ho, 2009; Azadani et al, 2011). This was also true of capsicum spray research, as mentioned previously, and is likely to be true of sublethal weapons that will be introduced in the future (Doubet, 1997; McCulloch, 2000). Although the research is not conducted by the company itself, there can be little doubt that it exerts a significant influence over the production of knowledge about CEWs. Problems with the impartiality of industry-funded research have been identified in the past and an examination of the pharmaceutical, tobacco and building industries provide evidence that not all claims that products are problem-free are entirely reliable (Barnes and Bero, 2006). Clear concerns about conflict of interest emerge when research is company sponsored.

In a recent study of CEW research, the authors gathered 50 medical studies on CEWs of which 23 were either funded by Taser International, or the author was somehow affiliated with the company. 96% of the Taser International sponsored studies found the weapon to be either 'not harmful' (70%) or 'unlikely harmful' (26%). Of the other 27 studies, only 55% reached the same conclusions; 45% of the independent studies found CEWs either 'harmful' or 'probably harmful' (Azadani et al, 2011). Negative or non-supportive research findings compete for exposure in the hierarchy of credibility that has been built around CEWs.

Broader research has shown that industry funded research by pharmaceutical companies is also more likely to support the safety and efficacy of new drugs than independent studies (Davidson, 1986). It has also shown that company sponsored research on pharmaceuticals 'almost always concludes that the sponsor's drug is equivalent or superior to comparison drugs, even when the data do not completely support this conclusion' (Barnes and Bero, 1996: 517). In addition, there are clear examples of industry manipulating publicly available data about their products when research findings are unfavourable to marketing. It is now widely recognised that the asbestos industry and the lead industry denied and concealed evidence that their products were harmful (Lilienfeld, 1991; Rabin, 1989). So while medical research is often considered quite influential in deciding the pros and cons of a particular product, it is essential to establish a sense of the independence of that research prior to uncritical acceptance.

More concerning though is that in the case of CEWs, researchers have begun to make public declarations of owning shares in the company when they have not done so in the past (CBC, 2008; Kroll and Ho, 2009). At a Taser International sponsored seminar attended by the author in July 2008, Jeffrey Ho (who was present) stated that 'we don't take stock options or anything like that' and was at pains to communicate his independence to the audience. He claimed no personal interest in the company's success, while disclosing that certain aspects of his research 'utilised corporate sponsorship'. Speaking in defence of himself and another prominent (stockholding) researcher, Donald Dawes, Ho stated that his association with Taser International was strictly 'to get the research done'. Ho explained that he and Dawes 'don't get benefits' from Taser International. In an edited collection of Taser® research published in 2009, however, both Dawes and Ho declare themselves as shareholders (Kroll and Ho, 2009). It is not known whether this was the case at the time of the seminar in Australia.

Regardless, company sponsorship can place overt or covert pressure on researchers to produce results favourable to the sponsoring company's marketing strategy (Barnes and Bero, 1996; Hillman, Eisenberg, Pauly, Bloom, Glick, Kinosian, and Schwartz, 1991). Even in the absence of overt pressure, there can be a feeling that published findings must be favourable to the research sponsor, whether this is consciously or unconsciously felt (Barnes and Bero, 1996). Such feelings stem from a fear that funding will be withdrawn or that access to future funding will be denied. When personal financial concerns are brought

into play, there should be significant concern about the validity of any findings produced, even when a conflict is declared.

Another significant problem concerns the methodological flaws of much CEW research, especially in terms of adequately recreating the conditions 'in the field' within the laboratory. Attempts have been made to replicate 'Excited Delirium' by having subjects exercise vigorously but even then it is common for the CEW barbs to be manually applied to the subject rather than fired, for subjects to be carefully supported to the ground rather than falling as the CEW is deployed and for subjects to be resting in a supine position (see for example Ho, Dawes, Reardon, Lapine, Dolan, Lunden and Miner, 2008). That such CEW exposures adequately reflect the experiences of people involved in highly charged policing encounters is questionable. In addition, research subjects are generally police officers or recruits whose health status is, presumably, quite unequal to those most frequently exposed to CEWs in the field, and this too makes the current research of questionable value in terms of understanding the consequences of CEW use by operational police.

THE BIRTH OF TASER INTERNATIONAL

Given that in 1990, Tasertron was still far from the market leader, medical research indicating that CEWs did not cause or contribute to death served to bolster the reputation of the Tasertron weapon, despite the deaths that had occurred. At this time, another main protagonist in the Taser® story, one of its current owners, Patrick Smith, was completing a Master's degree in Business Administration. Smith had a strong interest in non-lethal self-defence because he had lost two close friends in 1991, who were shot and killed during a road rage incident. As part of a class project, he completed a business plan for a new and improved stun gun. In 1993, Smith made contact with Jack Cover and formed a company with his brother Tom called the ICER Corporation (Smith 2007). Cover licensed his unique electrical circuitry to ICER and was employed full time by the company. He remained affiliated with the company until his death in 2009.

A new generation of Taser® devices was about to emerge. Smith saw that the manner in which darts were propelled was an important aspect of the weapon's design that needed to be reworked. Design began on a new device that, rather than relying on gunpowder, would operate with a compressed air propulsion system. Smith felt strongly about the need for civilians to have access to CEW technology, as well as law enforcement. Smith's company renamed itself Air Taser and launched its new product, AIR TASER 3400® in late 1994 (Smith, 2007). Though still banned in some US states, 43 others allowed the weapon's sale.

The product's challenges continued throughout the 1990s. The owner of the old company, Tasertron sued Air Taser arguing that it had exclusive rights to develop and sell Taser® based products to law enforcement and military agencies until the expiration of the patent in 1998 (Smith, 2007). A 'non-compete' agreement was signed. This limited sales of the AIR TASER 3400® to civilian consumers only, at least in the in the United States, until the term of the agreement ended. At the beginning of 1999, marketing to law enforcement agencies

by the present company commenced with enthusiasm. As will be demonstrated in the next chapter, Australia was a prime target for Air Taser's marketing advances from this time on.

In the late 1990s yet another new Taser® was developed, which utilised a precise, patented electronic waveform - the ADVANCED TASER M26®. Launched in 1999, the M26® was the first Taser® to incorporate Neuromuscular Incapacitation (NMI) technology. Perhaps wishing to disassociate itself from its former failed product, Air Taser became Taser International, Inc. in 1998¹⁸. Their new M26® was demonstrated to the International Association of Chiefs of Police in 1999 and Canada allowed the device to be marketed (though 'stun guns' had previously been banned). The product was also demonstrated, and purchases made, in several Australian states (this is discussed in detail in Chapter Three).

By 2000, more than 500 policing agencies in North America were either trialling or using the M26®. Both the Republican and the Democrat National Conventions in that year were policed by officers armed with Tasers® (Funding Universe, 2009). In May 2001 Taser International became a public company, opening on the NASDAQ with shares priced at \$13US, where they hovered until September 11, 2001. In the atmosphere created after the attacks on the Twin Towers, Taser® sales soared. In November 2001 United Airlines announced it was buying Tasers® for every one of its planes (Funding Universe, 2009). By 2002, more than 1000 police agencies had purchased the weapon.

In May 2003, Taser International introduced another new and improved CEW, the X26®. This model used 'Shape-Pulse Technology' enabling more efficient power supply contained in a device that is 60% smaller and lighter than its predecessor (Smith, 2007). It included enhanced data recording capacities and a camera attachment that recorded both audio and video. Stocks that had been worth around \$6 in November 2003 were selling at almost \$30 by April 2004.

A steady increase in Taser® proximate deaths can also be seen from that time on, prompting some serious questions about both the safety of the X26® and the manner of its use.

¹⁸ The Air Taser had no NMI capability. It relied on pain compliance like its predecessors and never found a foothold in the market.

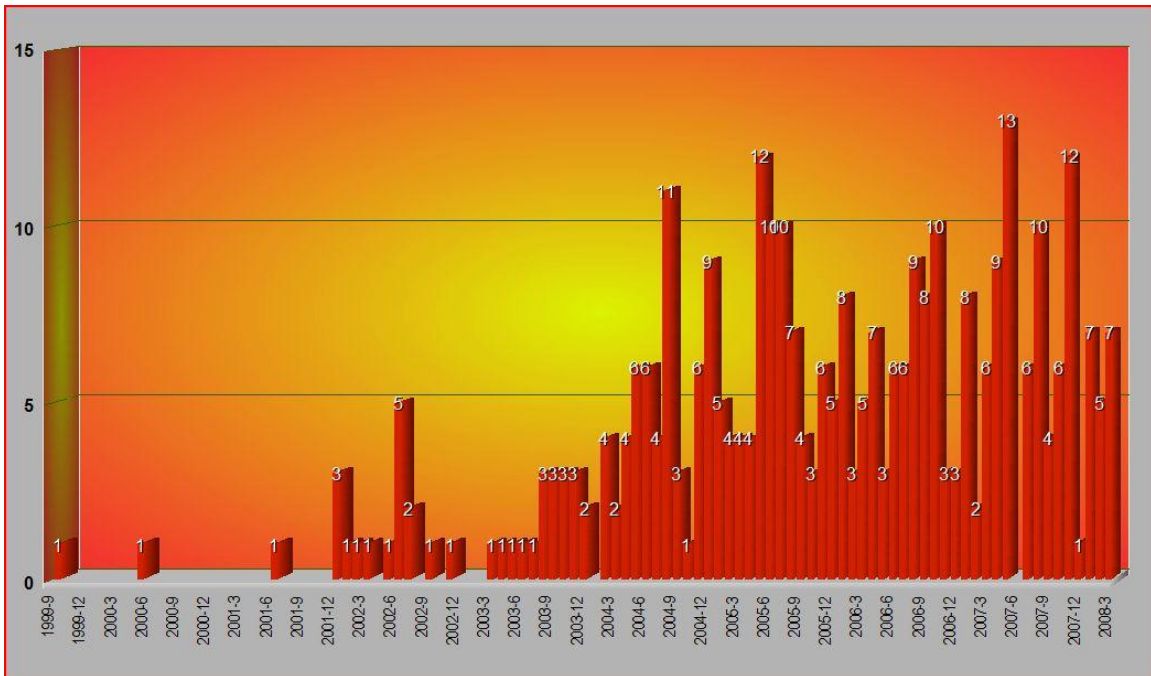


Figure3: Taser® Proximate Deaths in North America by quarter (September 1999 – March 2008)

(source: www.excited-delirium.com posted 17 April 2008).

This graph is based on CEW proximate deaths in North America as reported on fellow blog site, TruthNotTasers (truthnottasers.blogspot.com.au). This site routinely records the number of deaths following incidents where Tasers® have been applied as reported in the media and other published sources rather than cases where direct causation has been claimed or established. This data has been collated by cyber activists and cannot be completely verified, but nor can it be dismissed. If nothing else, it provides insight into the public concern that circulates around Taser International’s products. So while Taser International continues to claim that their weapon has never been identified as a cause of death, other sources make the validity of this claim questionable. The internet blog site Truth Not Tasers includes a ‘List of the Dead’ which, at last count, included over 720 names spanning from 1983 to the present day (see www.TruthNotTasers.blogspot.com). As mentioned in the introduction to this thesis, in Australia there have been seven deaths CEW proximate deaths to date.

The cause of these deaths remains and contentious and it is clear that Taser International wishes to exert control over the nature of the public debate. For evidence of this one needs only to take a brief look at Taser International’s history of litigating against and besmirching the reputation of anyone who calls the safety of their product into question (Sanders, 2006; Kroll, 2007; Anglen, 2008; Stanbrook, 2008). Echoing concerns expressed much earlier by Terrence Allen, the president of the US National Association of Medical Examiners

commented that 'there is palpable concern in the medical examiner environment that people don't want to get sued' (Catalanello, 2008). For Taser International's part, they argue 'we have held and will continue to hold medical examiner's responsible for any untrue statements' (Catalanello, 2008).

The company went so far as to attempt to sue the Braidwood Commission following their finding that Tasers® carry a risk of injury or death (Anglen and Johnson, 2009). In this matter, the company alleged that the public inquiry's findings were biased and unsupported by the evidence. They further claimed that the finding adversely affected sales of their product. A Canadian Supreme Court Judge rejected the Taser International's arguments, saying he 'found no merit in (their) submission' (The Canadian Press, 2010).

The company and its representatives still maintains that their product has never caused a death or serious injury despite defending it against over 127 lawsuits at the time of writing (TASER International, 2011). At least thirty-three of these suits relate to wrongful death (Yeung, 2009). Taser International has lost only two of these, involving the death of Robert Heston in 2005 and Daryl Turner in 2008 (see United States District Court for the Northern District of California, 2006; Nasiripour, 2008; Charlotte Business Journal, 2011). Heston was shocked 25 times in 74 seconds in an incident that closely mirrored one of the Australian deaths, that of Antonio Galeano in 2009 (discussed in more detail in Chapter Seven). The death was blamed on 'Excited Delirium' and a jury originally awarded Heston's family over 6 million US dollars and a 15% liability against Taser International. The company appealed the decision, which found that they should have known about the dangers associated with repeated or prolonged activations and should have warned police. Taser International's appeal succeeded in reducing some of the monetary award (which it was only 15% liable for) but the jury's finding that Taser International neglected its duty to warn remained. This is a very significant finding against the company, although the implications were glossed over when reported to shareholders (see TASER International, 2011; Williamson, 2011).

The second adverse finding concerns Daryl Turner who was 'tasered' for 37 seconds in the chest at his workplace (a grocery store) in Charlotte, USA when police were called to a dispute between the 17 year old boy and his manager (Miller, 2011; Barkham, 2011). CCTV footage of the incident can be seen on YouTube. Taser International was ordered to pay \$10,000,000 to the Turner family by a jury. A company spokesman argued that 'the jury felt deep compassion for Mr. Turner's family, and...this compassion may have overwhelmed the scientific evidence presented in this case' (Charlotte Business journal, 2011). Once again, the argument that anyone who thinks CEWs cause death simply doesn't understand the science was invoked by the company. Typically, the company tried (unsuccessfully) to argue that the teenager had a pre-existing heart condition, and that drug use was responsible for his collapse just seconds after being 'tasered'. Taser International is appealing the jury's decision (Wright and Wootson, 2011).

It is clear from these events that knowledge in relation to the safety of CEWs comprises highly contested terrain. As the following chapter will demonstrate however, the uptake of CEWs by police in Australia was characterised by a confidence and a tendency to dismiss concerns about the weapon's safety. A hierarchy of credibility was created through constantly deflecting safety concerns and making comparisons about a shot from a CEW being better than the alternative – presumably a firearm. False expectations of the weapon have arguably been created in the creation of this orthodoxy.

CONCLUSION

This chapter has set the background against which to consider the established orthodoxies of Taser® CEWs as lifesaving tools. It demonstrates the presence of a hierarchy of credibility that has served to obscure information that goes against the orthodoxy. It has traced a similar phenomenon in relation to OC sprays and presented a brief overview of the events that brought Taser International to the forefront of the CEW market. The discussion has highlighted the significant problems involved in interpreting the extent to which sublethal weapons such as OC and CEWs should be considered safe alternatives to firearms. Disagreement continues to characterise the debate around the extent to which such weapons can reliably be termed 'non-lethal, or even 'less-lethal'.

Two main problems seem to underscore the disagreement. The first concerns the independence of researchers. While manufacturers and marketers are invested in the technology's defence, independent researchers and real-world experiences contradict the company line, especially regarding the inability of the product to directly cause death. Most research that finds in favour of the safety of OC and CEWs has been funded (either overtly or covertly) by manufacturers themselves, putting a cloud over 'proof' of the safety of these weapons. The second issue concerns the validity of the research. It is impossible to reconstruct the policing field in a laboratory. Certainly, researchers have tried, by attempting to recreate the symptoms of 'Excited Delirium' in research subjects (through physical exertion prior to testing). However, it seems disingenuous to suggest that exercise, no matter how vigorous, sufficiently mimics the symptoms of 'Excited Delirium' as described in the literature, or that the proceedings of a critical encounter with law enforcement (likely to be fear, anger and related adrenalin flows) could ever be reproduced in a laboratory where participants not only consent to their treatment but are sometimes rewarded.

Thus, it has taken field exposures to reveal the dangers of CEWs when used in particular ways, on particular people. Industry-funded research has arguably obscured this knowledge and allowed a product that may in all possibility contribute to deaths, in the very circumstances it is designed to control, to be marketed as a life-saving tool, indispensable for modern police. This is perhaps unsurprising, given that the company's main aim is to secure a good return for its shareholders, but it is concerning when police rely only on company produced statistics and company sponsored research in making the decision to

adopt the product. Calls for independent research on CEWs are mounting and until a robust evidence base has been generated, it seems prudent to regard much of the evidence about the safety of CEWs with caution.

Many deaths after CEW exposure have followed repeated prolonged and multiple applications, which have not been adequately tested in the research. Indeed, it would be highly unethical to attempt any research aiming to replicate such conditions. Thus, although Taser International express confidence that the research verifies the safety of their product, there is little basis on which this research might be generalised. This puts the analysis of police use of force policy at the forefront of attempts to control and understand the circumstances in which sublethal weapons might be safely deployed, especially CEWs. If usage policies are strict and stringently enforced, if policy makers take careful account of verifiably independent evidence and field experience, it may be the case that sublethal weapons could potentially play a useful role in the prevention of deaths at the hands of police. Until such time, however, critics are well founded in questioning the evidence presented for and the arguments made in favour of the broader introduction of sublethal weaponry in policing.

The remainder of this thesis will focus specifically on the Australian experience of CEWs in terms of the rationales presented to the public for their introduction, the nature of the policies that control their use in each state and finally the observable outcomes of CEW use during the first decade of their introduction in Australia. The next chapter begins the case study that describes CEW use in Australia by examining the rhetoric that was used to foster their introduction. It is the first of four chapters focussing specifically on Australian data, and is followed by a chapter that considers the broader impact of CEWs on police policies around use of force. The third chapter in the case study section presents a detailed analysis of Australian policy. The final of the four chapters that comprise the case study provides an examination of key Australian events in relation to CEW use to date.

CHAPTER THREE: SELLING CEWS IN AUSTRALIA

We do not expect police officers to get involved in hand-to-hand combat anymore because it just results in injuries and that is one of the main reasons we rolled out Tasers to every operational police officer. Therefore, today any police officer who is working can get a Taser when he (sic) goes to work on the street. That levels the playing field a bit because there was a trend of some officers who were perhaps slighter or smaller being injured more than other officers. Providing officers with that extra sort of confidence and weaponry helps them to deal with those difficult conflict situations (Western Australia, 2008)

This chapter begins the central task of this thesis which is to examine what might be expected of CEWs based on what was said by those who took the decision to introduce them and how they have actually been used in Australian jurisdictions. A key task for phronetic research is to identify and deconstruct the dominant rhetoric surrounding a particular issue. Identifying minutiae and emphasizing 'little things' is a useful way to observe (and try to understand) the nature of 'power' as it operates to bring about particular social policies (Flyvbjerg, 2001). Successful phronesis demands the questioning, analysing and 'decoding' of the rhetorical devices employed by those involved in debates about public policy: from some perspectives, such as Flyvbjerg's, it is the principal role of social science to produce such research.

Together, the following chapters examine the use of CEWs in the field and explore the actual rather than the promoted use of CEWs. Examining the rhetoric surrounding CEW introduction in Australia, the first step in this process, is the task of this chapter. Rhetoric is taken here to mean language and narrative that is motivated towards the production of certain specific perceptions, to the exclusion of others. Rhetoric is defined here as the effective use of language to argue a particular point; the *Heinmann Australian Dictionary* defines it as 'the art of using words persuasively' (Heinmann Australian Dictionary, 1981). Rhetoric is politically motivated and outcome directed language. It is therefore purposeful and charged with ideology and therein lies the value in its analysis.

This analysis of rhetoric is drawn from a detailed examination of the publicly enshrined statements made about CEWs (represented by the language used in print, television and radio media) in each Australian jurisdiction. Attention is given to phrasing and euphemism, to unsubstantiated claims, and to the timing of media reports and police comments in relation to marketing strategies. This analysis extends into the following two chapters

which examine the institutionally enshrined directives in relation to CEWs (represented by use of force continua and operational policy from Australian jurisdictions). The sixth and final chapter then examines the significant outcomes of CEW introduction in Australia. Together, these chapters provide a detailed phronetic analysis of the introduction of CEWs across Australia. It will be argued that these events represent a significant example of the power of marketing rhetoric to reinforce a set of dangerous technofallacies in the construction of police operational policies across the country. As Rappert (2004) explains:

Many publicly circulated claims about the acceptability of weapons are predicated upon assumptions about how they will be used and the psychological and physical state of those targeted – assumptions that prove unattainable in practice (Rappert, 2004: 43).

Rappert's sentiment captures the essence of the dangers of technofallacies as they relate to the use of sublethal weapons by police. Principally, these involve both the construction of poorly informed policies, the problem of mission creep in the field (as the real utility of the weapons finds expression in their use) and the erosion of the principle of minimum force that results. This chapter's opening quotation clearly illustrates this concern. It (along with many other notable Australian events discussed further in Chapter Six) shows how far from their original intention CEWs have come in Australia. The words come from Western Australia Police (WAPol) Commissioner Karl O'Callaghan and were said in the Western Australian Parliament eight years after the initial trial of CEWs in that state. They provide us with a frank and open rationalisation for the broader roll-out of CEWs in Australian policing.

The words are notable in part because of the setting in which they were said (in parliament rather than directly to the public via more accessible media) but mostly because of the contrast they provide to the principal rhetoric of avoiding the use of deadly force that has traditionally surrounded CEWs. While there is no existing evidence that 'slighter or smaller' officers resort more often to CEWs (since such data is not recorded) or that such officers frequently require 'that extra confidence', the data gathered in this research indicates that WA has nonetheless been the most transparent about the practical utilities of CEWs from a police point of view, in both media statements and in operational policy (see Western Australia, 2008). Of the other Australian jurisdictions, perhaps only Vic, NT and the ACT have been as frank, but none with such consistency.

Commissioner O'Callaghan's 2008 address to parliament is infused with the hope that CEWs will produce a reduction in 'hand-to-hand combat'. However, the evidence from the 2010 Corruption and Crime Commissions analysis of CEW use in WA suggests that these hopes may have been misplaced, since assaults against police increased in the first few years following general issue (Corruption and Crime Commission, 2010). Reducing officer injuries and avoiding lethal force are the two key rationales stated by police seeking to introduce CEWs in Australia, as this chapter will demonstrate, although there is a remarkable lack of firm evidence that either outcome has occurred, or that they are even likely to occur.

One particular disturbing and controversial incident undermines O'Callaghan's sentiments even more. The incidents occurred in the Perth Watchhouse and involved an Indigenous man named Kevin Spratt. It was recorded on CCTV and widely televised (nationally and internationally) and clearly demonstrated that 'levelling the playing field' was not the only ends to which CEWs had been put by police officers in WA. The footage shows Spratt being subjected to a CEW thirteen times (whilst surrounded by eight police officers) during attempts to handcuff him in the reception area of the Watchhouse. An officer can be heard repeatedly yelling 'do you want to go again?' (see YouTube, 2010). Evidence emerged later that Mr. Spratt was subjected to a CEW forty one times over the course of a single week, each time whilst already held in custody (O'Brien, 2011). The extent to which such events demonstrate a gradual creep away from the original purpose of CEWs is examined in the remainder of this thesis. The natural beginning for this phronetic pursuit is the public statements made throughout the period of introduction and proliferation. The following pages will examine these statements in detail.

This chapter examines the data in two sections: the first examines the period between 1999 and the end of 2005, termed here 'the demonstration/trial period'. The second section examines the 'national proliferation', specifically by analysing the debate around, and drivers of, the expansion of CEWs beyond specialist police. It presents a chronological analysis of the publicly stated rationales put forward in support of the adoption and then broader roll-out of CEWs in each Australian jurisdiction.

A FOOT IN THE DOOR: THE DEMONSTRATION/TRIAL PERIOD

In Australia the introduction of CEWs followed a clear path from use by special response teams to trial by general police and finally general issue, a pattern identified in both local and international literature around paramilitarisation and the erosion of the minimum force principle (McCulloch, 2001; Kraska and Kappeler, 1997). There appears to have been extraordinarily low levels of public scrutiny of this process, as the following section will demonstrate and there has so far been no robust analysis of the rationales presented to the public of the move in each state towards making CEWs a general issue weapon for police. This took just a decade for CEWs to proliferate Australian policing, beginning in 1999.

The transition from use only in specialist squads to general duties police took five to seven years in most jurisdictions. The key protagonist in this process was ex-Victoria Police Special Operations Group (SOG) member, George Hateley. During his time with the SOG Hateley was involved in the testing of sublethal weapons, including the early model CEW, Air Taser®. He candidly explained in an interview for this research that he hadn't found the early model very effective: 'they hit me with it a heap of times and it actually fired me up, it got me more motivated. Even though I had burn marks on me and all sorts of things, I don't know, we just discarded it. We said it was useless, and it was. It only had the stun side of it'. After leaving policing in 1994, Hateley became involved in a security firm established by former Victoria Police Commissioner Kel Glare, called Forensic Behavioural Investigative

Services (FBIS) (Bevilaqua, 2001; Clack, 2001). During this time he was alerted (during a chance encounter in a taxi) to the fact that Taser International had developed the M26®, complete with new NMI capacity. He personally travelled to the US in 1999 to liaise with Taser International executives, and FBIS procured the license to distribute the weapon in Australia.

Table 2: Chronology of CEW Proliferation in Australia

	Specialist Trial	No. of articles*	General Trial	General Issue	Reviews	Policy Revision
Tas	1999	1	2009	-		
WA	2000	6	-	2007	WAPol (May '10) CCC (Oct. '10)	Dec 2010 ('trial' revision)
NSW	Dec 2001	2	May '08 (Supervisors only)	Oct '08	Ombudsman (Nov. '08)	Feb 2011 (publicly available)
Qld	2002	3	1 July '07 -30 June 08	Jan '09 Halted 19 June '09 Recommended Jan. '10	CMC & QPS (Trial 2 July '09) (Post Implementation July '09) CMC (Policy and Practice April '11)	23 Dec '08 22 Sept '09
SA	2002	2	Nov. '08	2010**		
Vic	11/03-11/04	28	1 July '10 - 30 June '11	-	OPI (July '09) VicPol (Feb '11)	
NT	2003	6	2007	2/08	NTPol March '09 - June '10	Dec '09
ACT	12/04-12/05	8	-	-	2007 2011 - 15 more units purchased	

* Pre 2006 **Carriage in cars only

On Hateley's return, FBIS commenced demonstrations of the Taser M26® around the country and Taser International quickly found their first Australian customer, Tasmania Police (TasPol). TasPol introduced the Taser M26® to their Special Operations Group (SOG) in 1999 (Waterhouse, 2009). This new acquisition was not widely announced to the public at the time. The first report in the Tasmanian media detected by the database searches used in this research was not until January 2001, by which time the trial had been underway for over twelve months (Bevilaqua, 2001; Waterhouse, 2009). There are notably few markers remaining on the public record to shine light on the exact drivers of the TasPol's decision to

initiate Australia's first CEW order, but it is likely that they included the urge to innovate, the perception of a need for better weapons and perhaps also the seductive promise of a non-lethal quick fix, all of which fall under the banner of technofallacies. Regardless, by 1999 Taser International had their foot in the door of Australian policing.

WAPol were second to purchase the M26® through FBIS, in 2000 shortly after a demonstration at the Police Academy led by ex-Police Commissioner of Western Australia, Bob Falconer (Flint, 2000; Western Australia Police, 2010). This state was also guarded about its decision to trial CEWs in its specialist unit. While the initial demonstration of the Taser M26®, termed an 'Air Taser stun gun' was reported in March 2000 in WA, the trial itself was not reported in the media until 2003 (Flint, 2000; Franklin, 2003). The very first article published in WA press presents the weapon's benefits as: 'Non-lethal, Can't kill or maim innocent bystanders with stray bullets, Defensive device, Can't penetrate walls or doors, Designed to prevent criminal use, Safer than a gun to keep around children, Far more effective than other non-lethal self-defence devices, such as pepper spray' (Flint, 2000). Notably, the term non-lethal is used, and the 'safe around children' observation implies the early ambition of marketing the weapon to civilians as well as police.

CEWs do not appear again in the WA press until the trial was well underway, in March 2003 (according to the search of Factiva undertaken in this study). The single report tells readers the four M26s® that were in use had been deployed ten times since their adoption and that police were keen to purchase more of the weapons. It also reports, incorrectly, that the weapon is made by Forensic Behavioural Investigative Services rather than Taser International (Franklin, 2003). It also, however, explicitly states that CEWs are used by police as 'a supplement to not a replacement for the use of firearms' (Franklin, 2003). This admission was more evident in WA media reports of CEWs than in most other Australian states though the message was still mixed with other far less frank depictions of the weapons utility, such as 'the stun guns are capable of dropping a large man to the ground and allowing officers to regain control - without side-effects' (Franklin, 2003). The article also reported the distributor's claim that CEWs were 'safe enough to use against people with heart problems or fitted with pacemakers', and gives an example of a recent deployment against a man 'trying to smash his way into a house' (Franklin, 2003). The CEW is termed 'less-than-lethal' in this article (Franklin, 2003).

In the meantime, the press in South Australia reported in early 2000 that Victoria was 'testing' the weapon, although the event reported was actually a demonstration conducted by Hateley for the Victoria Police in early March, which suggests that FBIS did not demonstrate directly to police in SA (The Adelaide Advertiser, 2000; Kennedy, 2000; Kennedy, 2000b). In the Victorian coverage of the 2000 demonstration, Hateley gives an account of his own voluntary exposure to a CEW during his trip in 1999 (Kennedy, 2000b). He says, 'They only gave me a quarter of a second ... And as quick as it put me down, I got up just as quick. But I had no control over my body' and although it was 'pretty revolting' he reported suffering no ill-effects (Kennedy, 2000b). The report also includes a

straightforward description of how the weapon operates to 'over-ride brain and central nervous system, sending skeletal muscles into convulsions', saying they leave the 'combatant disabled but unharmed' (Kennedy, 200b).

Hateley held another demonstration in NSW in late March 2000. Reporting of this event represents the weapon as 'better than capsicum spray or tear gas because targets did not need hospital care afterwards' (Parsons, 2000). Hateley is quoted in the NSW press, saying 'The M26 causes no permanent injuries and has no ill-effects' (Parsons, 2000). NSW introduced CEWs into its Tactical Operations Unit (TOU) in December, 2001, by which time three Coroners interstate had recommended further exploration of 'Air Tasers' by police in Vic, NT and QLD. These recommendations added significantly to the general discussion of CEWs utility and to widely held public perception that CEWs could effectively prevent the use of firearms by police.

2001: CEMENTING THE RHETORIC

The first mention of Tasers® in an Australian Coronial finding came from Victorian State Coroner Graeme Johnstone in his December 2000 finding arising from the fatal police shooting of John McConnell in 1998 (State Coroner of Victoria, 2000). McConnell was shot by police after attacking an automatic teller machine with a hammer. The Coroner's first recommendation was that 'The use of Air Tasers be considered (after proper consultation) as an additional alternative for general policing' after noting that a government committee was currently looking at the issue (State Coroner of Victoria, 2000: 13). Notably the Coroner used a brand name in this recommendation, rather than citing the generic term 'stun gun', common at that time. In response, Kel Glare (owner of FBIS and former Victorian Chief Commissioner of Police) added a further rhetorical dimension to the public debate by arguing in Victoria's 'intelligentsia' press, *The Age*, in January 2001 that 'if there is now someone killed in circumstances where a Taser could have solved the problem without being lethal, police are vulnerable to a law suit' (Domez, 2001). The same article also reports that 'the weapons are 100 per cent effective and can instantly immobilize someone when fired from up to 6.5 metres' and that they were already being used or tested in WA, Tasmania and South Australia (Domez, 2001). It is not known when such testing actually commenced in SA, however, because no public announcements of this development in that state were uncovered by the media database search undertaken in the present analysis until July 2002 (see Duffy, 2002).

On 14th January 2001, the AFP (responsible for enforcing federal legislation in Australia as well as for general policing of the Australian Capital Territory) publicly expressed reservations about introducing CEWs, reportedly preferring to wait for the outcome of testing in Tasmania and South Australia (Clack, 2001). The article in the *Canberra Times* sums up key developments, repeating Glare's claims about failure to carry the weapon making police vulnerable to litigation:

A private security firm run by former Victorian police commissioner, Kel Glare, holds distribution rights for the Air Tasers, which can instantly immobilise someone from 6.5m away. Mr Glare said police were vulnerable to a law suit if someone was killed in circumstances where a Taser could have solved the problem.

Victorian state Coroner, Graeme Johnstone, recommended Air Tasers for the Victoria Police when he was delivering his findings last week into the shooting of John Stuart McConnell in April, 1998. The chairman of the ACT Chamber of Commerce and Industry, Michael Kinniburgh, who has a long background in the security industry, said police and the Government were always seeking non-lethal options to subdue offenders. Tasers were used widely by police in Europe and the US as a non-lethal option.

Victoria Police Assistant Commissioner Ray Shuey said last week it was possible Victoria could test them this year...Unlike other non-lethal options, the shock could not be overcome by will-power or rage (Clack, 2001).

Almost all of the fallacies are reflected in this report, especially 'novelty', 'neutrality' and being 'fail-safe'. There is a clear sense in the report that the AFP ought to be keeping up with the latest innovations. Such motifs were common in early reporting about CEWs across the country.

The second mention of CEWs in a Coronial finding was made on 25th January 2001 by NT Coroner Greg Cavanagh in his findings in relation to the October 1999 police shooting of Eduardo Concepcione in Darwin. Cavanagh's first recommendation mirrors Johnstone's exactly, repeating the term 'Air Taser' and quoting Johnstone's commentary at some length. Cavanagh says, 'Apparently the non-lethal weapon mentioned by Mr Johnson (sic) is a type of stun gun. I agree with his comments and also I recommend that members of the Northern Territory Police Force liaise with the Victorian Police Force about the matter' (Cavanagh, 2001: Recommendation 1). It is clear from this that the NT Coroner took his lead from the Victorian Coroner's recommendation, made the previous month, rather than from any independent appraisal of the utility of, or possible dangers related to, CEWs. The Coroner reasoned that:

It is unfortunate to say the least that as our society enters the 21st century, law enforcement officers are still resorting to 19th century measures, such as the use of lethal hand guns, when confronting aggression from their fellow citizens. I was told in evidence about the trialling of various non-lethal weapons such as capsicum spray and other options by the Northern Territory Police Force. I recommend the continued search for a non-lethal tool to subdue people like the deceased (Cavanagh, 2001).

The press in NT reported these events as follows:

One of (the Coroner's) recommendations was that police continue to search for a non-lethal tool to subdue people like the deceased in this case, who came at police with a heavy axe.

A police spokesman said there were several versions of the Tazar (sic) which stun an offender through emissions of electric shocks. Mr Concepcion's inquest did, however, underline the futility of attempting to use batons in such a situation. Evidence was that the deceased was advancing on the officer with a heavy axe with an evident determination to use it.

The deceased's father-in-law Patrocino Ocampo, a former police officer in the Philippines, suggested the use of a net in such situations. But other witnesses said this would have brought the net thrower too close to the man with the axe. The inquest also heard that shooting to wound was not an option if firearms had to be used.

Sergeant Greg Hanson, of the operational safety and tactics training unit, said most gunshot victims say that it did not hurt, so shooting to cause pain was not effective in stopping a person. Also, an arm or a leg was a fairly small target compared with the torso. A hand gun round could travel up to 1500m and be quite dangerous even after passing through an arm.

Mr Cavanagh concluded: "I accept the evidence that the firing of a warning shot, given the suburban nature of the address, would have been unsafe" (Watt, 2001).

This narrative clearly reinforces the benefits of the CEW over a firearm, without any mention of the significant problems associated with reliance on sublethal weapons in circumstances where targets are armed and the weapon fails (which happens if the probes make insufficient contact).

In Victoria, the CEW issue was again reported in May 2001 in a feature article in the *Herald Sun* entitled 'Police want hi-tech guns to fight crime' (Cogden, 2001). This article cites then Assistant Commissioner Noel Ashby confirming that Victoria Police was considering testing both stun guns and net guns 'in an attempt to fight crime without bloodshed'. It also presents a range of statistics to show that injuries to both police and offenders were falling, saying '45.6 per cent fewer police were wounded in the line of duty last year than in 1997' and cites Johnstone's recommendation in the McConnell finding (Cogdon, 2001). The article clearly positions the introduction of sublethal weapons as in line with the apparent trend towards safer policing.

In June 2001, the *Herald Sun* in Victoria conducted a public poll on the question 'should police be armed with stun guns?' which returned a result of 82.9% in favour and 17.1% against (The Herald Sun, 2001). Shortly after, in August, the *Sunday Age* (again in Victoria) published a report headed 'Stun Guns Blamed for US Deaths' representing the first overtly critical reporting in the Australian media (Schwartz, 2001). It is drawn from a UK *Sunday*

Telegraph article which critically reports on potential acquisition of the weapons by British police and highlights several CEW proximate deaths in the US. Both reports say, not uncontroversially, that 'electric stun guns...have led to a number of deaths' (Schwartz, 2001). This added a new critical dimension to the CEW debate, it is the first of a smattering of reports that link CEWs with deaths or harmful outcomes that were published before 2006 whereupon the number of such reports began to increase significantly.

The third recommendation for 'Tasers' came from Qld Coroner Michael Halliday in late August 2001. Investigating the May 2000 police shooting of Benjamin Basford in Deception Bay, north of Brisbane, Magistrate Halliday found that if a CEW had been available to police at the time of the shooting 'the death of the deceased could have been avoided' (Magistrates Court, 2000: 14). Not only was this on trend with other Coroners investigating police shootings at the time, but Halliday was also influenced by an article from *New Scientist* that was brought to his attention by his assistant (Magistrates Court, 2000: 2). The article is written by a journalist wishing to investigate the safety of CEWs by being subjected to one at a weapons expo in Virginia (Brooks, 2001). The article presents a critical analysis of claims made by weapons' manufacturers and calls for greater independent testing and licensing of sublethal weapons. It also notes the 'chilling vision of the future of policing' the weapons represent (Brooks, 2001: 11).

In December 2001, CEWs appear for the second time in the Canberra press in a report following a non-fatal shooting that again reflects a cautious approach to the weapons from the AFP. It says, 'Several years ago the ACT examined the use of stun guns and other options for police to use in dangerous situations. The stun guns were rejected as they did not always penetrate heavy clothing, leaving police in a vulnerable position' (Boogs, 2001). It also reports a US case of 'someone who had been sprayed with an alcohol-based product (who) had caught fire after having a stun gun used on them' and says introducing the weapons had been 'ruled out' in the ACT (Boogs, 2001). Nonetheless, by then end of 2001, after two years of marketing, CEWs were being trialled in four Australian states, WA, NSW, Tas and SA. In the three others, Vic, NT and QLD, Coroners had recommended similar trials. The issue was also alive in the ACT, despite the reticence expressed there. The CEW technofallacies were now firmly planted across Australia.

2002-2003: HOMING IN

FBIS began a new round of demonstrations in June 2002, taking the M26® to QLD (Watt and Doneman, 2002). The event was not reported in QLD until August 2002. The single report suggests that CEWs were 'being used or tried out in every state except Queensland and Victoria' (neglecting to note that they were not being considered in the two Australian Territories) and that the weapon had first been investigated by QLD police command in 2001, after the Basford finding (Watt and Doneman, 2002). It also reports that QPS was still 'evaluating' the Taser® because it had concerns about the safety of the weapon in relation to use against people with pacemakers. The report also repeats the claim that CEWs can

immediately immobilise a person 'without causing any serious side effects' (Watt and Doneman, 2002). Sometime later that year (the exact date is not known), the QPS Special Emergency Response Team purchased two M26® units (Law Institute of Victoria, 2004). There is no publicly available information on the outcomes from the first three years of use in this specialist unit. The weapon was eventually approved for a general issue trial in 2007, as discussed in more detail below.

As mentioned, it is difficult to know exactly when SA commenced to trial CEWs in its STAR group (or even if a formal trial actually occurred). SAPol have proven to be the least transparent about their CEW use of all Australian states. Not only did they refuse to provide their CEW policy for analysis in this research, but they did not publicly announce that a CEW trial was occurring in the state until well after this was reported in other states. In carrying out the present research, it proved extremely difficult to construct a reliable account of events in SA as the 'little things' often contradicted each other. The evidence is assembled here on the basis of what facts could be reliably verified.

In July 2002, a single report announcing a Taser® trial by South Australia Police (SAPol) was uncovered by this analysis, however, this has been contradicted by personal correspondence with SAPol undertaken for this project, which suggests that there never was a trial, other than the general issue trial (Duffy, 2002). Nonetheless, the report of the trial says that Tasers® do 'not pose a risk to the elderly or people with pacemakers' (despite concerns about this issue in other parts of the country at the time) and that the weapons deliver 'a non-lethal 50,000-volt shock' (Duffy, 2002). According to the Inspector with whom this author corresponded, the Duffy article is merely 'old info', and so presumably not to be relied upon. An article from the ACT also suggests that SA was testing the weapons (as early as January 2001) so what occurred at this time in SA cannot be reported with any certainty (see Clack, 2001).

In February 2003, Territory Response Group and other 'specialist sections' in the NT commenced trialling the newer model Taser X26® (Dyer, 2003; Northern Territory Police, 2009). This is interesting timing, as the weapon was not launched in the US until May, 2003 according to Taser's company website. This was the same year that Hateley began independently marketing the newer model X26® through his newly established company Breon Enterprises (now Breon Defence Systems), which continues to hold the distribution rights (Bevilaqua, 2001). The available evidence suggests that Taser International released the X26® through Breon prior to its release in the US. In any case, the NT event was announced in the media by February and immediately received some critical debate. Public discussion of CEWs in NT has had a reasonably critical tone right from the outset, although the weapon continued to be termed 'non-lethal' for some time (Dyer, 2003). There is some confusion about exactly when the trial commenced (Jan or Feb) but the possibility of death or serious harm resulting from use is raised in media reporting from the outset. The President of the Australian Council for Civil Liberties, Terry O'Gorman, is quoted in one of the earliest reports, saying:

'the Taser gun has much more serious potential (than capsicum spray) for extreme injury, possibly death. The Police Commissioner should be forced to release a consultation paper including all data that exists from around the world that lists the problems of the Taser gun' (Dyer, 2003).

He goes on to express concern at the lack of public debate on CEWs:

'Unlike police powers, which have to be debated by Parliament, the increasing availability of paraphernalia is not. Any further addition to the police arsenal should be accompanied by detailed community consultation, including publication of all the data as to the disadvantages of a new item of equipment' (Dyer, 2003).

The evidence does not show that any such consultation occurred. In July 2003, Tom Smith from Taser International visited Australia to spruik the new X26® in Australia. Smith's belief that it was 'only a matter of time before all police officers carry state-of-the-art Taser stun guns to catch dangerous or difficult criminals' is reported in the WA press (James, 2003). Noting that the coercive threat of the Taser® was often enough to elicit surrender, Smith also repeated the mantra that numerous medical studies had shown no permanent injuries from a CEW. Smith encouraged police to deploy the newer model beyond the TRG, but a WAPol spokesperson says there were no plans for further deployment 'at this stage' (James, 2003).

Notably, in November 2004, CEWs were deployed by QLD police during the protests on Palm Island following the killing of Mulrunji Doomadgee whilst in police custody (ABC newsonline, 2004; Todd, 2004; Marriner, 2009). The use of CEWs to control the crowd received very limited media attention in the context of the event.

The formal Victorian trial in the SOG began in December 2003 (Duffy, 2002; Petrie, 2003; Victoria Police Association, 2004; Office of Police Integrity, 2009). An exemption to the *Control of Weapons Act 1990* was made in November 2004 to allow SOG and CIRT officers to carry the weapons (Office of Police Integrity, 2005). The trial was discussed twice by the OPI, in 2005 and again in more detail in 2009. Both reports reflect conservative use in the SOG and CIRT and are supportive of retaining the weapons in these groups (Office of Police Integrity, 2005, 2009). The 2005 OPI review reports that 'The Taser X26 has been used on 18 occasions in operational situations where the use was planned. Deployment in each case was effective' (Office of Police Integrity, 2005: 27). It also indicates that 'no police service has any immediate plan to equip officers undertaking general operational duties with the Taser X26' citing the reasons that widespread training is impractical, adding another tool to those already available would complicate police decision-making, carriage is impractical and injuries may result from malfunctions (Office of Police Integrity, 2005: 28). The trial was also reported in the 2009 report, which is discussed in more detail in Chapter Six.

TOWARDS NATIONAL PROLIFERATION

THE NORTHERN TERRITORY

In January 2004, an extension of the 12 month trial in NT's Tactical Response Group (TRG) was announced:

NT police said the trial had been extended and incorporated into a national review by the Australian Centre for Police Research on the use of force and deployment of police in high-risk situations. The review, to be completed by mid-year, will develop guidelines on the use of potentially lethal force by police.

Assistant Commissioner Grahame Kelly said: "Police are continuing to evaluate the use of the Taser, which includes what is happening in other states." TRG officers are the only Territory police trained to use the Taser. Victoria is trialling its use across the force (Bevin, 2004).

This statement provides a further example of the rhetorical devices used to support the introduction of CEWs. An impression of professionalism is created by the language and references made in this report. A compendium on national guidelines on use of force was produced in 1995 by the National Police Research Unit (National Police Research Unit, 1995). This body later became the Australasian Council for Police Research (and then Australian and New Zealand Policing Advisory Agency in 2007) who went on to produce use of force guidelines that were endorsed in 1998 by the Australian Police Minister's Council (Standing Committee on Legal Affairs, 2007). They were again updated in 2004, but do not make any specific mention of CEWs.

Further, at that time the Bevin's (2004) article was written, Victoria was not trialling CEWs 'across the force' but only in its SOG. The critical voices evident in the NT in the previous year were less vocal on the extended trial. It was reported in November 2004 that police had 'still not decided' whether to introduce the 'non-lethal' weapons for use by general duties officers (Sunday Territorian, 2004). They finally did so in 2008 having commenced a general issue trial in 2007. Carriage was reviewed in 2010 and NTPol allowed open access to review findings and also policy documents for the purpose of this research, which are discussed in detail in Chapter Five.

THE AUSTRALIAN FEDERAL POLICE/ACT POLICING

The last to 'get on board' with an initial CEW trial was the AFP, in November 2004. The new weapon would reportedly be used to 'calm potentially violent offenders' and was 'less about confrontation and more about negotiation and conflict de-escalation' (Cutrupi, 2004). The single article reporting the trial cites evidence of a reduction in officer injuries from the US, as well as quoting a local man rendered a quadriplegic after being shot by police three years earlier who says 'My life would be a lot different today if police had stun guns back then' (Cutrupi, 2004). The report mentions that deaths had occurred in the US but 'Taser said its weapons were not lethal' (Cutrupi, 2004). The trial, in the Special Response Security Tactical Response (SRSTR) was evaluated 'in-house' and a brief report published in 2007.

The article indicates that the trial was initially intended to run for only six months but was extended for a further six months due to insufficient data arising from the initial trial for managers to make an informed assessment of the weapon's utility. In fact, the weapon was only deployed once during the first six months, in February 2005 in the execution of a warrant on someone with a 'known propensity for violence' (ACT Police, 2007). The trial ultimately ended in December 2005, by which time the weapon had been used 10 more times (twice in July, six times in September, once in October and once in November 2005). By October 2005, prior to the trial's completion, the AFP Operational Safety Committee (OSC) had approved the continued use of CEWs by the SRSTR until 31 March 2006 whilst the trial report was compiled and operational use was reviewed by the Committee.

Prior to the trial's commencement, the AFP Commissioner's Order 3 (CO3), a document governing the AFP's use of force mandate in the ACT, was amended to incorporate the use of CEWs. During the trial period the weapons were carried by SRSTR members on selected operational shifts including tactical deployments, general policing patrols, beat policing patrols, and during demonstrations. Tasers® were carried on duty by SRSTR members in excess of 450 occasions in the twelve months of the trial. By June 2006, the continued use of Taser X26® was approved, but restricted to 'appropriately trained Tactical Response Team officers only', and only 6 CEWs were purchased (ACT Police, 2007: 1). The Standing Committee on Legal Affairs (2007) recommended that CEWs remain restricted to tactical response police:

*The recommendation that the TASER be deployed more widely throughout the AFP needs to be considered carefully. While the AFP sees clear advantages in deploying TASERs over OC spray, the weapon is still controversial and in no other jurisdiction is it deployed by other than tactical response group members or their equivalents. The Committee considers that **police have sufficient weaponry and powers available to them to deal with day to day situations and that standard operational gear should contain the minimum weapons necessary to ensure the safety of police and the public.** Where police have intelligence which suggests that there may be potential for violence then those situations must be assessed on a case by case basis. The officer in charge of an operation would then determine which weapons are to be deployed in any given situation (Standing Committee on Legal Affairs 2007: 68, emphasis added).*

This conservative approach to CEWs as general issue weapons has been maintained in the ACT. In August 2011, in line with the rationale that experienced police should be the ones who decide when is appropriate for CEW use, a further 15 units were purchased and use was expanded to senior frontline police (ranked Sergeant or above) (AFP, 2011). It seems that the greater utility of CEWs in the AFP has been found in their federally auspiced policing duties concerning the control of refugees and asylum seekers (see Thompson, 2011).

WESTERN AUSTRALIA

From 2004 onwards discussion of CEWs in the Australian media intensified, coloured by the vocal participation of police union representatives. Media analysis shows calls for the broader issue of CEWs from unions in every state. This pressure is especially evident in WA, with a media report from December 2004 the first to appear (Lam and Videnieks, 2004). The report describes a stand-off during which a CEW was deployed by the TRG against a man throwing roof-tiles at people. Arguing for a CEW in each police vehicle, the WA Police Union President stated that CEWs would reduce officer assaults and 'protect the lives of offenders'. He said that the weapons would 'not be used willy-nilly' and acknowledged CEWs cause pain but 'no injury and that is the argument for their use' (Lam and Videnieks, 2004). The article also reported that the WA Premier, Dr Gallop, would consider requests to broaden deployment, but that Police Commissioner, Karl O'Callaghan, had no plans to make the weapon general issue.

The article went on to present the views of the mother of the man involved in the stand-off:

The mother of the young man involved said the Taser guns were inhumane. The woman, who would not be identified, said she understood police had a job to do, but she was dismayed that they shot her son in the chest and testicles with the Taser gun, despite being told he had a heart condition.

"I would just question the use of that much force," she said. "My son was not resisting arrest at the time. He was overpowered by three very large and capable (TRG) officers and yet they still shot him in the chest and the testicles. The screams I heard from him on the television news were just terrible, and to think that every police officer could have one of these weapons is absolutely frightening. I think they are very cruel instruments."

The woman said she was disappointed Dr Gallop had approved the level of force shown by police. Her son was admitted to Royal Perth Hospital on Friday night with cardiac problems after being shot with the stun-gun (Lan and Videnieks, 2004).

This narrative reveals the serious tensions between the views of police and those of some citizens about what constitutes appropriate use of force.

Despite these tensions, the prospect of broader deployment of CEWs in WA then re-emerged during the state election, involving Liberal leader Colin Barnett and Labour Premier Geoff Gallop, during early 2005. 'Law and order' featured prominently in both campaigns, reportedly in response to 'a series of riots at suburban parties' (The 7.30 Report, 2005). As part of his campaign, the Opposition Leader proposed introducing water cannons to control unruly youth in Perth stating:

Sorry to those young hoodlums, I am on the side of the police. I am going to make sure that the commanding officer has the ability to come in with a water cannon and disperse those people. Bad luck (The 7.30 Report, 2005).

In response to this, the incumbent Premier promised the electorate forty CEWs instead, calling the use of water cannon 'a backward step'. He says:

That's not what the police commissioner's indicated to us. We want to go forward. We want to look at new technology, new ways of tackling crime (The 7.30 Report, 2005).

These proposals regarding sublethal weapons were put to the public a week and a half before the election, which Gallop went on to win convincingly. From that point, CEWs appear to have been introduced incrementally in WA, with very little fanfare and less focused analysis or debate. There appears to have been no formal evaluation or trial process, beyond the use of CEWs in the TRG, prior to general deployment of CEWs in 2007 (or at least none is publicly accessible). The Labor Party held power in WA until September 2008, when the Liberal Party, under Colin Barnett, took power. No water cannon were purchased, instead the proliferation of CEWs accelerated. Still under the Gallop Labor government in 2007, WAPol purchased a further 1,100 Taser® CEWs and issue was then expanded to officers who had completed a one day training course (New South Wales Ombudsman, 2008: 29).

Announcing further acquisition in August 2007, Michael Dean, then President of the WAPol Union, lauded the weapon's capacity to enhance officer safety, saying, 'Last year 1,383 police officers were assaulted in the course of their duties, so these new Tasers will surely be an excellent deterrent!' (Dean, 2007). This forecast was not necessarily accurate because by 2009 a new Union President, Russell Armstrong, was demanding double the number of Tasers® and also 'danger money' for police. This came in response to a 30% rise in reports of assaults against police in the previous year (O'Connell, 2009). The continued belief in the 'silver bullet' utility of CEWs is best explained by the notion of technofallacies, which serve to obscure certain facts, while giving prominence to others.

In October 2007, the death of a polish immigrant, Robert Dziekanski, proximate to a multiple CEW deployment at Vancouver Airport sparked an international debate about the safe use of CEWs. The incident was caught on a mobile phone camera and widely circulated on the internet (See YouTube, 2007). Dziekanski was distressed after arriving from Poland and spending many hours at the airport, unable to find his mother who was supposed to collect him. Five RCMP members attempted to apprehend Dziekanski after he threatened them with a stapler. They pinned him face first to the ground, used Tasers® and handcuffed him. He stopped breathing and was pronounced dead at the scene.

Comments on this incident from WAPol and the WAPol Union were widely sought by the media, as this was the only state that had made the step to general issue by this point. On the ABC's 7.30 report, some especially interesting commentary appeared:

DEBORAH CORNWALL: In the past decade Australian police have largely limited their use of tasers to a highly trained elite of tactical response officers. Police unions across the country have long been campaigning for all police to be armed with stun guns, a push that

recently led the West Australian force to issue all officers with tasers, regardless of their rank. Six months on, the police union says **the number of assaults on its members have already halved.**

MICHAEL DEAN, WA POLICE UNION: We've had a huge problem with attitude towards the police, breaking up violence events over the last few years in Western Australia. Since the advent of the tasers, in the mere putting your hand on one, **the deterrent effect has been amazing.** People immediately stop. They have a fearsome reputation and there's no doubt if you're shocked with one it does hurt.

NICK KALDAS, NSW DEPUTY POLICE COMMISSIONER: I'm aware there's a lot of support for it, certainly from the union. But obviously we just need to go through the process. And the support is understandable, it is something that gives police that's less and lethal (sic) and yet can stop someone in their tracks. And I think it's also fair to say there's probably quite **a number of people within Australia who would not be alive today** had we not had that option open to police in high risk situations.

DEBORAH CORNWALL: Amnesty International have identified 291 deaths which they say were linked to taser attacks. But police insist as yet there's been no evidence that's identified tasers as the actual cause of death.

MICHAEL DEAN: They are certainly not weapons to be used lightly, but I'd say to you that **there is not one Coroner in the western world that has named the taser as the cause of death in any of these cases.** It's quite puzzling. There seem to be every drug death, and these are mainly overdoses, seems to be attributed to the tasers. In reality, there's no evidence of any sort that tasers have even contributed, even in a small way.

NICK KALDAS: My understanding is that there isn't, there's certainly no incidents in Australia where anyone's died. Those that we've examined from overseas would lead us to believe that it's more about what happens after the taser is enacted rather than the actual tasing of the person.

DEBORAH CORNWALL: Taser International say the stun gun is really about saving people's lives, offering a police an alternative to capsicum spray and batons, especially when dealing with the mentally ill and violent drug users. West Australian police are already being called upon by hospitals to use tasers on drug affected patients, raising sensitivities about how the new weaponry is to be used.

NICK KALDAS: There's the safety of the officer, the safety of the public, the safety of the subject person himself, whether he's about to commit self harm, whether he's about to hurt others, whether he's about to do something drastic. All of those things have to be considered, but certainly the safety of our officers is also paramount. **The whole point of using tasers is that we don't have to kill someone** (The 7.30 Report, 2007: emphasis added).

Chapter Two of this thesis illustrates how inaccurate these statements are, since Coroners had linked CEWs to deaths in the US by 2007. It is most likely that police were unaware of the controversy because it is most unlikely that it would have been communicated by Taser International, the main purveyors of CEW knowledge. This excerpt demonstrates the clear presence of a certain orthodoxy around CEWs as safe alternatives to firearms, the frequently stated rationale for the introduction of CEWs.

By the end of 2009, however over 80% of Western Australia's operational, front-line police were trained to use CEWs and approximately 1600 units were available for use. In 2010, it was announced that 500 more CEW units had been purchased and that every frontline officer would be equipped with what was proclaimed as the new 'weapon of choice' by WAPol in their internal review (Western Australia Police, 2010). This purchase brought the total number of CEWs in WA to 2,100 for around 5,500 operational officers (Western Australia Police, 2010; Eliot, 2010). Two significant reviews of CEW use in WA were completed in 2010, each painting a different picture from the other about the manner in which CEWs were being used by police. The first, mentioned above, was undertaken 'in-house' and the second was conducted by the Corruption and Crime Commission (CCC), the main police oversight body for WA. Read together, these reports are emblematic of the rather confusing public conversation that was by now taking place across much of Australia. These are both discussed in more depth in Chapter Six, along with other Australian reviews.

NEW SOUTH WALES

Turning to events in NSW, it is known that although the specialist trial commenced in 2001 the first operational use of a CEW in NSW was by Tactical Operations Unit (TOU) officers in May, 2002 (New South Wales Ombudsman, 2008: 36). By March 2002, five TOU officers had been trained and certified (under Taser International protocols) as Taser Instructors. The State Protection Support Unit (SPSU) was also granted permission to use CEWs in May 2002. The weapons were confined to these groups until February, 2006, when a trial was announced in the Public Order and Riot Squad (PORS) and 12 more Taser X26s® were purchased. At this time, a Working Group was established to consider the feasibility of CEWs for public order policing. The group reported to the Firearms Standards Committee that:

'Essentially, overseas research and OH&S concerns raised [led] to a view that testing [Tasers for public order management situations] is not appropriate in light of perceived unsuitability of Tasers in [public order management] situations.

The US/UK experience is that Tasers have been largely withdrawn from Public Order scenarios as they can have adverse unintended consequences. Usage is primarily for critical incidents.' (New South Wales Ombudsman, 2008: 37).

In August 2007 PORS officers were nonetheless approved to use CEWs in a range of circumstances, including use by arrest teams in violent confrontations, cell extractions and

high risk circumstances requiring immediate action prior to the arrival of the TOU. Although not used operationally until February 2008, the issue of CEWs to PORS officers was not supported by the NSW Police Association, who felt that the potential of the weapon to 'escalate violence and antagonise the relationship between police and protesters' was too great and that the weapon should instead have been issued to all first response vehicles (New South Wales Ombudsman, 2008: 37). Police Minister David Campbell ignored this criticism and invoked the familiar rhetoric of harmlessness and avoiding firearms use in supporting the introduction of CEWs, saying, 'My understanding is that in most instances there are not side-effects after the use of stun guns. It's certainly a better option than requiring police officers to perhaps use their firearm' (ABC, 2007).

The general issue debate intensified in NSW again in December 2004 when a man was shot by police after capsicum spray failed to subdue him. The Liberal opposition leader, John Brogden, made public comments that the broader deployment of CEWs deserved further investigation while the incumbent Premier Bob Carr as well as the local police commander defended capsicum spray as a 'solid tool' that wasn't expected to be effective every time (Carter and Kennedy, 2004). Use remained confined to various specialist groups, where they were reportedly used approximately 50 times until the general trial began in October 2008 (Welch, 2010). The dynamics of this extension of the trial to general duties are unclear based on this analysis of the public record.

There had been no scrutiny or investigation of CEW use in the first five years in NSW until an Ombudsman's special report which was tabled in November 2008, a month after the general issue trial had begun. This report, discussed in more detail in Chapter Six, was very critical of NSW policy and lack of proper evaluation of Tasers®. It stated:

when the NSW Police Force initially considered utilising the Taser as a special tactic for resolution of high risk incidents, a comprehensive assessment of the weapon was not conducted. Instead, officers relied heavily on information provided by other jurisdictions about the weapon's utility. In addition, these weapons were not trialled by NSW police officers before being adopted by the specialist units. Further, after the weapon was introduced, an evaluation strategy does not appear to have been considered, and a comprehensive analysis of Taser use by the department has not been conducted. This is despite the fact that use of the weapon has recently been extended.

In our view when the NSW Police Force is making a decision about whether or not to deploy a new weapon, a comprehensive assessment should be undertaken about the weapon, and its likely effects. While we recognise that an important part of such an assessment would include an analysis of weapon usage in other jurisdictions, we feel that relying solely on such information is problematic, and that it would be appropriate for the NSW Police Force to independently investigate (New South Wales Ombudsman, 2008: 91-92).

The Ombudsman recommended a halt to the general roll out until a further two year review could be conducted by an independent body (New South Wales Ombudsman, 2008: 91). At that stage, the weapons were confined to carriage by Supervisors and Duty Officers. The roll-out continued, however and the announcement that all frontline officers would carry CEWs followed in June 2009 (Carty, 2009).

QUEENSLAND

In Queensland, the move from limited use to general issue occurred in a similarly haphazard and controversial fashion, with general introduction again being announced before the trial's evaluation had been concluded. Significant tension also arose between QPS and the Crime and Misconduct Commission (CMC) during the evaluation process. The debate about CEWs was also intensified in QLD by the fatal shootings of four mentally ill men between 2003 and 2006. These men were Thomas Dion Waite, James Henry Jacobs, Mieng Huynh and James Michael Gear; all of whom were shot and killed by police while suffering psychotic episodes.

During the inquest, which examined all four of the deaths together, the general trial commenced, in July 2007. The trial was initially limited to carriage by District Duty Officers (DDOs) and Regional Duty Officers (RDOs) in Metropolitan South, Metropolitan North and South Eastern Regions (QPS, 2008). These are senior officers who would be involved in the management of major incidents. During this period, in January 2008, the Minister announced that a general roll out would commence in January 2009. The timing of this announcement was odd and it was argued that the government had brokered a deal with the police union, which was holding elections for its executive at the time (Wray and Chudleigh, 2009). Following the 12 month trial, it was planned that Tasers® be rolled out in a staged process commencing in 2009. By the end of that year it was decided that each district would have access to CEWs.

But the roll out in QLD was halted when a man, Antonio Galeano, was killed in controversial circumstances involving multiple deployment of a CEW (reportedly 28 deployments) in June 2009¹⁹. This death sparked a six month halt to the roll out and a further review into policy, training, monitoring and review of CEWs which concluded in July 2009 (Hurst, 2009; Crime and Misconduct Commission, 2009a). This review recommended policy revision, particularly in relation to the threshold for use. In 2010, training in CEW use began at recruit level and it was expected that all officers would be trained by the end of 2011 (QPS, 2009a). The CMC conducted an evaluation of the CEW trial, which is discussed further in Chapter Six. To briefly describe the relevant circumstances, the Police Minister announced

¹⁹ At the time of writing, the inquest finding into this death has not been handed down. The known circumstances will be discussed further in Chapter Six.

in January 2008 that the trial had been a success, prior to the CMC having released its evaluation and prior to the evaluation even being completed (Robinson, 2008). In March 2008, the Coroner recommended that the QPS review its use of CEWs when the results of the CMC evaluation were released (see below).

In his finding, delivered in March 2008, the State Coroner also commented that:

It is likely that if the officers involved in these four incidents had access to a taser gun they would have been deployed. If it occurred, such deployment may have resulted in each of the incidents being resolved without anyone being killed (Queensland State Coroner, 2008: 139).

The Coroner could not recommend broader deployment, since the trial was still underway (and general roll out had already been announced). Instead he recommended:

that the trial of tasers continues and that the evaluation by the CMC have regard to international experience in the use of these implements. When the results of the trial and the CMC evaluation are made known the QPS should review its policy in relation to the use of tasers (Queensland State Coroner, 2008: 139).

He went on to say:

There is...considerable controversy surrounding... use (of CEWs) in other jurisdictions and some suggestions that tasers have been associated with numerous deaths.

The Crime and Misconduct Commission is currently undertaking an evaluation of a limited trial of tasers by Queensland police officers. Presumably the CMC will have regard to the concerns referred to earlier when framing its recommendations. The QPS will then be appropriately informed as to the circumstances in which tasers should and should not be used.

Notwithstanding the recent decision of the Minister for Police and Corrective Services to provide tasers to all operational police prior to the completion of the CMC evaluation, I understand it will continue. Its findings should inform future decisions about the distribution of tasers among police and the framing of regulations to govern their use (Queensland State Coroner, 2008: 139).

While the Coroner showed caution, the link between CEWs and the prevention of lethal force was arguably firmly fastened in QLD by this point. The President of the Schizophrenia Fellowship of Queensland made a statement to reporters outside the Coroner's court after the finding was handed down that that 'anything which prevents a person being shot dead is a good thing, and anything was preferable to the killing of a person by police' (*The Law Report*, 2008). This sentiment was strengthened by claims from some of the men's families that CEWs might have saved their relative's lives. Of Dion Waite's mother, the media reported:

She knows there were stun guns in Brisbane around the time of her son's death and cannot understand why they weren't used. When I suggest they were only on trial, she asks, "Well, why didn't they trial it on him?" When I say the guns might have been elsewhere, she says, "They're bloody slack, they had 90 minutes to get it there" (Scott, 2007).

James Gear's mother Marie, however, argued another perspective, once again demonstrating that the general public and especially those directly affected by CEW use held views on police use of force that fell outside the CEW orthodoxy:

My point is that it should never have reached a stage where they pulled out a gun, whether it be an electric gun or a gun that fires bullets. They had to learn to communicate, to talk to each other, to talk to me, not just storm in the house like it was some bloody show on American TV: that's what they did. They've got to be better trained (Stewart, 2008).

In April, the Deputy Commissioner of QPS announced that the trial would end on 30th June and that each use would be evaluated (*The Law Report*, 2008). In an exchange with an ABC journalist during a radio interview, worth recounting in detail, Deputy Commissioner Stewart said:

we've only deployed the taser in Queensland 158 times, and of that 158, only 95 of those incidents were where the taser was actually used. In each of those other cases, and there's another 63 of the incidents, the mere fact that the taser was drawn and the person was called on to desist from their behaviour, brought the situation under control.

Damien Carrick: *There have been, as I understand it, a number of complaints made by people who have been tasered. There was one gentleman in Cleveland, Queensland, who claims he was tasered three times while handcuffed in a watch house. And another Gold Coast man who was tasered while he was fleeing from police, and he claims that he was tasered simply because he was running faster than police.*

Ian Stewart: *As I've said before Damien, each one of these deployments of the taser is actually examined by the project that's managing the trials, and obviously we look at them carefully.*

Damien Carrick: *Civil libertarians say that the tasers in Queensland are not being used only in life and death situations, as a less lethal alternative to guns. Instead they're being used much, much more widely than that, simply to make people compliant, and they say that's a very, very bad development.*

Ian Stewart: *Damien, in fact I would be very concerned if the taser was being used in the life and death situation, in fact the taser is actually not a device that should be used in those circumstances, because obviously in a life or death situation, the*

police officer has recourse to his service firearm or his or her service firearm. The taser is more for those situations where there's likely to be physical force applied to either a police officer or to a member of the public and the police intervene in those situations to bring that person under control (The Law Report, 2008: emphasis added).

These frank comments (made only weeks after Coroner Barnes' recommendations that the use of CEWs for critical incidents continue to be investigated) provide a stark example the slipperiness of the rhetoric being employed to create the perception of the total accountability and utility of CEWs. They also show a direct recognition of CEWs limitations for use against armed offenders. The debate had therefore flipped directly from the CEWs propensity to avoid the use of deadly force to its unsuitability for such a task, in the virtual blink of an eye.

In July, 2008, the QLD police minister announced that \$14 million dollars would be allocated to the acquisition of 1240 Taser X26® units and that Breon Enterprises would be 'awarded the contract for the long term supply of the devices after a careful evaluation' (Queensland Minister for Police, 2008). The purchase of a further 830 units was planned for the following two years, until the roll out was complete at the end of 2011, making a projected total of 2070 CEWs in Qld, which has a total of around 10,500 police for a population of just under 4.5 million people (Queensland Police Service, 2009).

The expansion was lauded by the Queensland Police Association, which said (in a statement on the Taser International website):

*The Queensland Police Service has conducted extensive studies and trials of taser devices prior to their approval for introduction...The results of these efforts have proven the effectiveness of taser devices **reducing injuries to both officers and offenders and preventing violent situations from escalating**. I am very pleased that we will soon be starting our training and roll out of taser devices across the state* (Kellet, 2008).

Notably, the familiar rhetoric of saving lives is not present in this statement. The Associations' President was also pragmatic in his support of the roll out in the media, saying:

I think it'll make it a lot more safer, I think (officers) will be a lot happier to have this particular device at their disposal, for their protection and for the safe and effective restraint of people in our custody (Robinson, 2008).

This suggests that police were becoming aware that CEWs had broader utility than earlier thought. Their use as a deterrent to violence which may escalate was recognised, and statements made about them in the public realm began to reflect this reality more honestly. This argument is supported by views taken by police command in South Australia.

SOUTH AUSTRALIA

In South Australia a limited trial of general issue CEWs was first announced in June 2008. CEWs were placed in two cars in two suburban local service areas. Reflecting a very cautious approach to the weapons (in contrast to the states previously discussed), it was reported that the CEWs were to be 'used only by trained officers in situations which involve an armed offender and if a risk of serious injury to either police, the public or the offender exists' (Hunt, 2008). The Commissioner is quoted, saying:

It is a useful piece of equipment which can be used to prevent serious injury and harm but, and it is a big but, it doesn't work in every case because of the technology involved. Our experience with the STAR Group is that in 10 per cent of the cases it did not work and that was with a group of highly trained, highly disciplined specialists who used it in controlled situations. It is likely the success rate in a general duties environment will be even less than it was for the STAR Group (Hunt, 2008).

The approach reflected in this initial announcement is certainly a cautious one. The possibility of fatalities resulting from injudicious use is taken into account, along with the possibility of confusion amongst officers having to make quick decisions regarding their weapon of choice. The commissioner also publicly expressed concern that high levels of force may come to be normalised by young officers and that community support may be lost if the use of CEWs was not strictly confined to high risk situations rather than being used for compliance or to prevent 'a bit of push and shove in policing' (Hunt, 2008).

The trial did not actually begin until 2009 and by October of that year was extended to police in Mount Gambier. In the media, Commissioner Hyde provided figures from the first six months of the trial – 40 uses (38 of which were presentations, and 2 deployments). One deployment failed and Hyde continued to take a comparatively cautious line, particularly with regard to CEW use becoming normalised (Gerritsen, 2009). The trial's success and broader roll-out was then announced in November 2009, along with the purchase of 300 X26s®. The Commissioner did not bow to union pressure for the weapons to be carried on the utility belt, preferring the English model of carrying CEWs inside police vehicles, encouraging more carefully deliberated deployments (ABC News, 2009). The union continued to lobby for general carriage by every officer, but at the time of writing this has not occurred.

TASMANIA

In Tasmania, the first state to adopt CEWs into their SOG in 1999, pressure for broader introduction has been almost constant. Notably however, the *Police Association News* published an article by Sgt Andrew Bennet in September 2008 that argued for issue to supervisors only, and that deployments need to be planned rather than spontaneous. He writes:

Yes, there are instances when the Taser could be utilised by general duties police, but not in the manner many of you think. (It) is very limited in its application especially from the context of reactive self defence (Bennet, 2008).

Bennet is credentialed as an experienced member of the SOG and a less than lethal tactics instructor in TasPol. His frank evaluation of the utility of CEWs is a rare example of critical views emerging from within policing bodies.

George Hateley demonstrated to the Tasmanian Police Association in May, 2009 and media reporting of this event says the Acting Commissioner was 'examining wider deployment' (Waterhouse, 2009). Union pressure continued, citing the prevention of injuries to officers as the main feature of CEWs (ABC Northern Tasmania, 2009). By October 2010, a new Commissioner had rejected CEW deployment beyond the SOG 'in the near future' and Tasmania's *The Mercury* was reporting that:

The use of Tasers by Australian police forces was intended to reduce the number of armed offenders fatally shot by police but has increasingly been used to gain compliance from suspects resisting arrest or otherwise proving difficult (Killick, 2010).

It is further reported that:

Mr. Hine (Commissioner of Police) said the case hadn't been made for the weapon to be more widely issued in Tasmania. "We don't want our police officers to be injured in any way and if we can better protect our officers we'll certainly do that, but the studies show it's not the right time for us to be issuing Tasers," he said.

"I won't say never but we'll keep an eye on it, but at this stage we'll say no because there are a lot of issues with Tasers." Mr Hine said Oleoresin Capsicum (pepper) spray would continue to be the police service's preferred less-lethal weapon.

The question of Tasers would be kept under review, he said.

"We did a study this year and the recommendation from the study was that no we didn't need them at this stage," he said. "We did update our OC spray to a different product so it's more directional -- so we thought that's the way to go at this stage. That's not to say we're not going to keep an eye on what happens around Australia and around the world." (Killick, 2010).

It is not known whether Sgt Bennet was involved in the study mentioned above. The situation in Tasmania has not altered and the weapons remain confined to specialist police in that state, as they have been for twelve years. In the course of this research, Tasmania Police have disclosed that the weapon has been used only once (correspondence dated 24 May, 2011). It should be noted that it is possible that CEW use in Tasmania primarily occurs in prisons, although no statistics are publicly available. CEWs are used by Risdon Prison emergency response teams (Brown, 2010). Tasmania is one of two Australian jurisdictions

that utilise CEWs in custodial settings, WA is the other (Tobin, 2011). This raises a set of issues that have not been a specific focus of this thesis, but which deserve further investigation as corrections officers in other states have begun to call for the same access to the weapons (Tobin, 2011).

VICTORIA

Victoria was the second state to adopt CEWs into specialist policing, but did not trial the weapon amongst general duties police until July 2010. During the fifteen year interim, the Victorian Police Association put pressure on police management to introduce the weapons, at one point by threatening industrial action. Rank and file police views on the issue have been widely aired in Victorian print media (see for example *Herald Sun*, 2008; Moor, 2008; Falconer, 2009). Bob Falconer (ex-WA Commissioner of Police) was quoted in the media urging the introduction of CEWs and criticising then Chief Commissioner, Christine Nixon, for taking so long to make a decision (Anderson, 2008). It is not clear on whose behalf Falconer made the comments reported and no mention of any conflict of interest arising from Falconer's previous personal and commercial interest in the weapons' successful marketing (as a previous representative of FBIS, the company that originally demonstrated CEWs to Australian police). He argued that Nixon should 'end this procrastination or avoidance...they've been demonstrated well enough in other countries and in other Australian states and territories' (Anderson, 2008). The article's tone is supportive of Falconer's views, containing an appeal for CEWs from the wife of a police-shooting victim who argued, 'there would be more people alive if the police were using the stun guns' (Anderson, 2008).

In December 2008, 15-year-old Tyler Cassidy's mother joined this appeal (*The Age*, 2009). The boy was shot dead by Victoria Police in December 2008 (after two deployments of OC spray were ineffective). This event intensified debate in Victoria as many claimed that the boy's life could have been saved had CEWs been available (Burgess, 2009). Of course, CEWs *were* available to police at the time of the shooting via the CIRT team, but apparently the events at the scene unfolded too quickly for this team to be considered an option. A police dog, however, was just minutes from arriving when Cassidy was shot dead (Coroner's Court of Victoria, 2011: 32). Police at the scene had been instructed by their Acting Sergeant (via radio) to 'just cordon and contain. Just wait for the canine' (Coroner's Court of Victoria, 2011: 32).

The inquest was also told that at the time of the boy's death, there was little in-depth training for police on the skills required for disengagement and de-escalation, nor for recognizing and managing distressed, irrational people. That the Cassidy Coronial finding did not mention CEWs as a panacea is remarkable in the context of this research. Indeed the finding makes no mention of the weapons at all. This was interesting given that Coroners, both previously in Victoria as well as in other states had commented on their possible utility. The only analysis of sublethal weapons in this finding was an officer's comment that

the use of OC 'appeared to have no effect on Cassidy other than to exacerbate him' (Coroner's Court of Victoria, 2011: 37).

It was initially encouraging, in the context of this research, to see such emphasis placed on training and tactics as the key to avoiding police shootings rather than relying on new weapons technology. In the broader context, this 'old fashioned' common sense is quite unique. Also encouraging was the fact that although the 12 month trial of CEWs was completed in June 2011, over nine months later there had been no decision and very little public commentary on the likelihood of broader introduction. It is clear that a good deal of exploratory research has been undertaken by police in that state around use of force and it may be the case that senior police are well aware of the pitfalls of CEWs. Nonetheless, a move towards general deployment was announced in March, 2012. In taking their time with introducing the weapon, Victorian police have the benefit of observing events in other states. In light of their own less than perfect history with use of force VicPol's use of CEWs will be watched with great interest by concerned observers.

CONCLUSION

This chapter has shown that rhetoric around the saving of lives has been strong in Australia during the initial push towards CEW proliferation. The role of CEWs in enhancing officer safety is also emphasized in the debate, often as a result of police unions frequently voicing their support for the weapons on this basis. The evidence canvassed here suggests that North American experiences with CEWs have been either ignored, not known about or just downplayed. The principal rationales supporting the introduction of CEWs into Australia have obscured broader concerns about the potential use of CEWs as a coercive tool.

Political influences have provided triggers for CEW adoption, especially state elections and police shooting events. It seems reasonable to conclude on the basis of this analysis that CEW deployment depends very much on the philosophy on use of force and broader policing issues held by leaders in each state, and the knowledge they have about the realities of CEWs limitations. Police managers should ideally be in a position to see through the marketing ploys employed by CEW manufacturers, although this chapter has demonstrated that some police chiefs appear more informed about the issues than others. A deeper understanding of the weapon's capacity is required if we are to avoid following the example set by the USA, where CEW proximate deaths occur with undesirable frequency. The orthodox rhetoric of saving lives and reducing injuries requires much more evidence to support it if it is to be accepted as any more than an extremely effective sales pitch.

This analysis also shows that challenges have been made to the paramilitaristic fervour that has characterised the acquisition of CEWs in Australia. These challenges are evident in the comments made by relatives of the victims of police shootings, who questioned police tactics and training. Their comments raise the question of whether it is more weapons that are needed or better skills, particularly when police deal with people experiencing

psychiatric crises. Such views defy the power of technofallacies, and suggest that 'action oriented' policing is not a universally accepted norm, nor an acceptable default position.

The next section moves on to examine the manner in which the competing goals of CEWs have been enshrined in official directives about use of force offered to police. The following chapter looks briefly at the issue of use of force continua, arguing that traditionally used models have been challenged by the introduction of a weapon that manufacturer's claim can be used in place of a firearm, but which police know also makes an extremely effective intermediate weapon. The CEWs de-escalating ability is becoming as well-known as its purported ability to save lives. This presents a problem for hierarchical understandings of use of force which attempt to teach police about the principle of proportionality in their choice of weapon. It will be argued that this has resulted in a series of re-configurations of the guidance offered to officers, which serve police command (and weapons manufacturers) much better than they serve operational police.

CHAPTER FOUR: AGAINST THE GRAIN - CEWS AND THE USE OF FORCE CONTINUUM

Limited research reflects a lack of consensus in the development and application of policies related to Taser training and use. Variations in policy and training and the substitution of Tasers for other technologies across the use-of-force continuum result in operational inconsistency. This inconsistency makes it difficult to compare police departments in terms of the impact of Tasers on improved officer and citizen safety and reductions in the use of lethal force. This inconsistency is also reflected in media reports and has the potential to jeopardize community relations (Adams and Jennison, 2007: 447).

This chapter argues that CEWs have shaken the foundations of conventional policing wisdom about use of force resulting in perceptions of minimal force being altered in an unprecedented fashion. It does this through an examination of alterations to use of force models in Australia, Canada and New Zealand. The place of CEWs in relation to other use of force options is examined by looking at the ways various international jurisdictions instruct police about this key issue. As demonstrated in the previous chapter, public statements about the acceptability and legitimacy of CEWs have placed significant emphasis on the control of 'worst case' scenarios, or what Rappert terms 'best case justifiers' (2004: 43). This suggests that CEWs should sit alongside firearms (or perhaps one step below them) in terms of the instructions provided to police on what situations are appropriate for their use. It can be demonstrated, however, that the situation is not straightforward. Indeed international use of force models have undergone significant readjustments since CEWs were added to the police toolkit, while police try to strike the right balance in CEW policy and guidelines. This thesis helps to demonstrate these shifts.

While individual police departments are entitled to develop their own procedures and policies around sublethal weapons use, a number of controversial incidents during the past decade demonstrate quite diverse conceptions of their safe and reasonable use both within Australia and internationally. This statement holds true in relation to batons, kinetic munitions, capsicum sprays and CEWs. While some jurisdictions issue quite restrictive policies around sublethal weapons, others are demonstrably more permissive. This thesis aims to compare the publicly stated reasons for introducing CEWs with the policy directives provided to police. Policy rests on sets of guidelines (or use of force models) and it is

evident that these began to change quite distinctly following the introduction of sublethal weapons.

MEASURING EXCESSIVE FORCE: THE LIMITATIONS AND POSSIBILITIES OF POLICY

There are two key issues in the analysis of police use of force that bear heavily on the study of sublethal weapons use. First are the difficulties inherent in precisely defining the notoriously slippery notion of 'excessive force'; and second, the lack of certainty around the degree to which policy plays an effective role in the process of defining a use of force incident as reasonable or excessive (see Klockars, 1996; Stenning et al, 2009). Axiomatically, excessive force cannot be defined or effectively controlled in the absence of clearly articulated limits, although such limits cannot be effective if they have been created on the basis of incomplete or ill-informed knowledge (Klockars, 1996; Kleinig, 2007). For this key reason, critical analysis of the context of CEW policy's creation is at least as important a task as analysis of the outcomes of their use. The observation that sublethal weapons policy is unsettled, inconsistent and contradictory is common in the limited research that exists on the issue and reflected in Adam's and Jennison's comments that open this chapter. In most jurisdictions that have adopted CEWs, policy has later been tightened, suggesting that these weapons were introduced well before sufficient knowledge about their utility and effects had been gathered. For example, having introduced CEWs in 2007 and following a very critical CCC Review, WA tightened policy significantly in 2010. Queensland made the weapon general issue in 2008 and also tightened policy in September 2009 following Antonio Galeano's death and a critical CMC report (CMC, 2009).

A further set of issues to be examined are the significant disparities in policy guiding the use of CEWs, both in Australia and internationally. In some jurisdictions, clear directions demonstrate that CEWs should be used only in situations that would otherwise warrant firearms while in others, the weapons sit alongside OC spray and batons as an intermediate weapon. For example, the NT's policy expressly directs that CEWs are not for use against persons carrying firearms (because 'muscular contractions could cause the firearm to discharge'). In relation to use against armed subjects, New Zealand's policy states:

*Caution should be exercised in using an EMI device when a subject is armed with a blunt edged weapon, or knife, to ensure a safe reactionary distance is maintained. **Use of the EMI device against a subject armed with a firearm should not normally be considered;** police firearms remain the most appropriate tactical response for such situations. However, it is recognised that circumstances may exist within such situations where the use of an EMI device may be appropriate when deployed with or in support of conventional firearms (New Zealand Police, 2008: 152 emphasis added).*

When presenting restrictions around CEWs, it is usual for police to provide caveats such as 'unless extreme or exceptional circumstances exist'. There are some identifiable reasons for this 'fluidity', which will be discussed in the next section of this chapter, but at the outset it must be acknowledged that the extent to which police policy effectively guides (or

prohibits) police behaviour has been much debated amongst police scholars (Skolnick, 1975; Skolnick, and Fyfe, 1993; Grimshaw and Jefferson, 1987; Walker, 1993; Dixon, 1997). Concerns about 'weapons drift', which have been present in discussions of sublethal weapons for several decades, reveal a cynicism about the capacity of policy to control use of force effectively (The Council for Science and Society, 1978).

There is no body of research to show that good policy produces good outcomes and it is almost axiomatic in criminological parlance that even the most carefully crafted rule will inevitably be broken. In relation to policing, scholars such as Walker (1993) do argue that policy is a still 'viable avenue of reform' and many have devoted careers to improving police rules and directives (Walker, 1993: p 53; Skogan, 2006). Others take a more cynical view dismissing policy as 'the public relations arm of policework' (Grimshaw and Jefferson, 1987: p197). In any case, there are observable limitations on the capacity of policy in itself to prevent poor outcomes especially in relation to use of force (Bayley and Garofalo, 1989; Rappert, 2004). Certainly there are many examples of police behaviour that demonstrates officers' capacity to breach policy (albeit with greater or lesser degrees of accountability). A further concern is that policy will always provide somewhat fluid guidance to police, given that it can be altered at any time (McCulloch, 2001: 172). Dixon (1997) has argued that when police practice moves outside policy requirements, there is a tendency to change policy in order to include the practice rather than take steps to rein the practice in. The present analysis does not directly support this argument, showing instead a significant tightening of procedures, especially around the justifications for CEW use. For example QLD and WA's policies moved from using CEWs to 'prevent injury' to using them to 'prevent serious injury'. Still, policy alteration has been a key response when controversial incidents have occurred in Australia, accompanied by a strong measure of denial on the part of senior police in relation to any fault in previous policies or on the part of police (this argument is illustrated in more detail in Chapter Five).

When undertaking policy analysis, it pays to keep in mind the limitations of this approach. The precise impacts of use of force policy on the control of excessive force are impossible to measure with any degree of scientific precision and will remain so given the infinite nature of the variables involved. In addition, policy is only a viable artefact to examine if it is understood that it enshrines particular biases. Thacher (2008) has argued that any effective analysis of police policy must recognize that, in general, policy tends to favour the needs and interests of policy makers and police managers over and above those of frontline police. As such, particular agendas ought to be evaluated on whether they address 'the *right* mix of human interests' (Thacher, 2008: 47). Thacher argues that determining this mix requires firm ethical and political judgments:

It raises questions about the claim that different groups and interests ought to have on social development – specifically, on the development of relevant knowledge-or, put differently, it raises questions about the extent to which there is a social interest in satisfying the knowledge interests that each group has (Thacher, 2008: 47).

Identifying the nature of both 'knowledge interests' and 'social interests' in the CEW debate requires a phronetic approach. In terms of policy, a number of groups have a stake in how policy is constructed: policy makers, weapons users and police critics or oversight bodies who represent members of the public (especially those most vulnerable to CEW use). In light of this, the remainder of the thesis examines the triggers for CEW policy innovations and change in Australia, the restrictions placed around use of CEWs and the degree of transparency reflected in individual policies in order to better understand whose interests are being served and how policy might be improved.

As noted by Adams and Jennison (2007), in relation to CEWs specifically:

Knowledge regarding the impact of a new technology on an organization and its operating environment tends to be limited in the early stages of adoption. As the level of implementation increases, policies and practice evolve. This development demands continuous research and reflection to ensure newly generated information is updated into the knowledge base (Adams and Jennison, 2007:448).

This is especially so in Australia, where very little work has yet been done outside the sphere of official inquiry. Debates about the appropriate place of CEWs in the use of force continuum provide an excellent example of the evolving nature of this knowledge base. Further, they illustrate the profound impact of technology on policing policy and practice.

USE OF FORCE: SEQUENTIAL OR SITUATIONAL?

Universally, CEW policy places the onus on individual officers to decide when it is appropriate to use a CEW. In her examination of CEW policies across British Columbia, undertaken for the Braidwood Commission's inquiry, Karen Ryan (2009) notes that:

The policies examined generally allow for a great deal of discretion or latitude in the use of the CEW by police officers, including reliance on the officer's subjective judgments...Arguably, within such guidelines use of the CEW may be considered appropriate in every case. An officer's subjective belief that the subject will become aggressive or assaultive-even when the subject's behaviour poses no immediate threat to anyone - is sufficient justification for the use of the CEW (Ryan, 2009: 492).

This is problematic on a number of levels but especially because it means individual officers are held responsible for poor decisions rather than institutions being accountable for poor policy, guidelines and training (Nicholson, 2009). In many ways, the policies that surround CEW use present a special case in policy analysis because knowledge about the weapons' effects and implications has evolved very rapidly in the last five years. As discussed in Chapter Two a great deal of our current knowledge about CEWs has emerged from use in the field (nationally and internationally) rather than the researcher's laboratory.

A striking example of this is the admission by Taser International that deployments to the chest ought to be avoided (Taser International, 2009). The warning appeared in a Taser

International Training Bulletin entitled "*Medical Research Update and Revised Warnings*" in October 2009. This 'revision' came about after several deaths in the US following such deployments, notably that of Robert Heston. The legal proceedings around Heston's death brought the company under significant pressure as did independent medical opinion presented by Dr. Zian Tseng to the Canadian Braidwood Commission in May 2008, arguing that such deployments could be dangerous. The new 'product advice' required immediate re-instruction for officers and a radical overhaul of police policy directives, and raised concern about the future liability of police (see Daigle, 2010).

This development was significant for police both nationally and internationally because one of the key benefits originally attached to CEWs was their ability to slot neatly into police training because of a phenomenon known as 'muscle memory'. The automatic reflex of officers reaching for their guns and aiming for the largest body mass, a universal technique in police training, made CEW training easy to incorporate into use of force training modules. This situation was seriously altered by the new advice about chest deployments and was quickly reflected in policy alterations, notably so in Australian policies developed post 2009 (NT, WA and Vic). In October 2010, a year after the new 'training bulletin' was issued by Taser International, Thinh Ba Le died after being 'chest tasered' by NSW police. It is unclear what warnings were provided to police in NSW at that time, although the available policy does not include any specific warning about chest deployment (this is further discussed in Chapter Six).

Given the confusion and mixed messages that are present around the intended purpose of CEWs, it seems reasonable to question the appropriateness of placing the onus of liability on individual officers. Guided by training, written policy provisions and often by diagrammatical representations of decision making processes, operational (and sometimes inexperienced) officers must make decisions of critical importance. Ideally they should be able to rely on clear, concise and well-developed policies around use of force. Articulating appropriate tactical options seems to invoke the concept of a force continuum by necessity, especially in determining whether or not CEWs reduce the use of firearms. Still, there has been a significant movement away of the notion of a linear 'force continuum' towards a circular 'tactical options' model in providing directives to police on use of force. This trend deserves to be unpacked in the context of the arguments presented in this thesis about the impact of CEWs on the principle of minimum force.

Force continuums have traditionally been represented in flat linear progressions such as in figure 4 below:



Figure 4: Typical Use of Force Continuum Model

(source: Wallentine, 2009:1)

The use of linear models can be traced to 1978, when the LAPD utilized a use of force 'barometer' which clearly illustrated a progression of use of force options, from verbalization through to deadly force. Each 'officer reaction' is matched to a 'suspect action' to guide police in making justifiable decisions about proportionality.

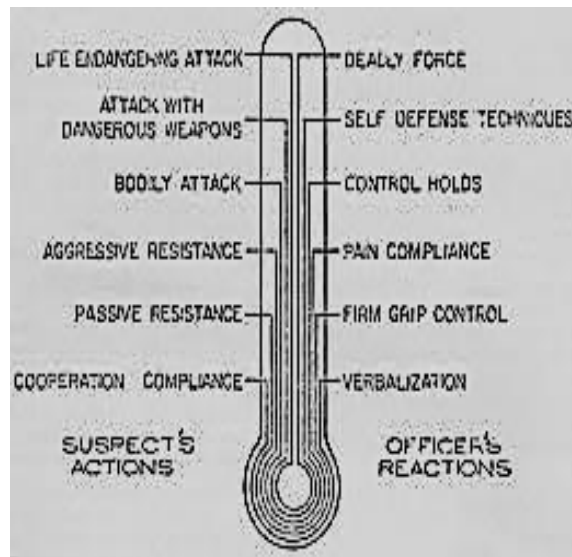


Figure 5: LAPD Use of Force Barometer, 1978

(Source: Nicholson, 2008: 10)

The model does not incorporate sublethal weapons specifically, although LAPD introduced CEWs in 1981, as explained in Chapter Two. Criticisms of linear models focus on their failure to provide officers with a sense of the fluidity of police encounters and the need for constant reassessment of tactics. More sophisticated versions of the linear continuum have

since been developed in attempts to address this, generally depicted as a set of stairs such as in figure 6:

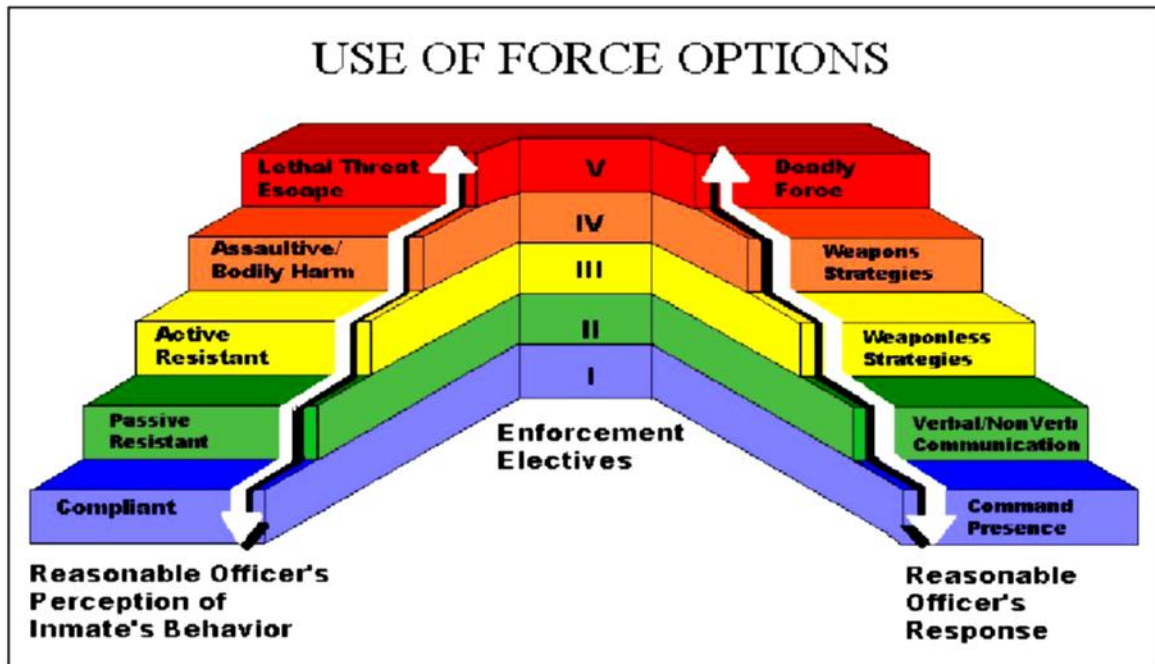


Figure 6: Use of Force Options Model, Texas

(source: The Royal New Zealand Police College, circa 2006: 50)

This diagram represents the option of de-escalation more clearly. It preceded the landmark US case, *Tennessee v Garner* (471 U.S. 1, 1985), that overturned officer's right to use force against a fleeing felon, so represents both 'lethal threat' and 'escape' as thresholds for deadly force. Sublethal weapons sit on the orange step and are meant to control assaultive behaviours causing bodily harm. In this diagram, sublethal weapons are one step down from firearms.

In Dec 1993, a report prepared for the International Association of Chiefs of Police shows the relative precision of discussion around how sublethal, or less-than-lethal (LTL) weapons were sequentially conceptualized in the United States at that time:

*As the LTL program has evolved, so has the idea behind it. At one time, the search for nonlethal weapons was considered a search for an alternative to deadly force. Today, it is viewed as an effort to find tools or devices that subdue subjects without harm. Although these tools can be lethal if used inappropriately or in unusual circumstances, they are not considered weapons in the usual sense nor are they seen as alternatives to deadly force. **Deadly force is at the top of the use-of-force continuum, and LTL devices are simply lower rungs on the same ladder.** To distinguish between 'less-than-lethal' and*

'nonlethal' the latter refers to a device that cannot cause death no matter how it is used (Pilant, 1993:2 emphasis added).

Such sequential conceptions of use of force, including the very notion of a linear continuum, were once standard, but have demonstrably fallen from favour in policing since the mid to late 1990s (Peters and Brave, 2006; The Royal New Zealand Police College, circa 2006; Buttle, 2007; Wallentine, 2009). A number of reasons for this have been suggested. For example, Aveni (2000) argues that the shortcomings of the continuum device are attributable 'to the very nature of the shifting nature of law and the public perception of policing. These devices have been hampered (if not cursed) by attempting to create a black-&-white menu of options from a world of grey facts and circumstances' (Aveni, 2000: 1). This view is reflected in commentary such as that offered by Peters and Brave (2006) below, discussing the influence of the Fourth Amendment's objective reasonableness standard on North American policing:

Force continuums often give the perception that officers must use minimum force, but that is not the constitutional standard...When the continuum standard is used, critics of the police often have a field day, because even though an officer's use of force was legally permissible, the officer may have violated the often more restrictive continuum standard (Peters and Brave, 2006: 8).

Legal traditions around excessive force are clearly context bound and the degree to which the ideal of minimum force underscores police policy is highly variable amongst policing jurisdictions. This makes local contexts and interests central to the useful analysis of sublethal weapons. It is also worth noting that Michael Brave, co-author of the article cited above, has declared links with Taser International, heading their litigation department and is also a strong proponent of 'Excited Delirium' as a cause of in-custody deaths (see Chapter Two).

More sophisticated critiques argue that force continua (or sequential, incremental organization of tactics) do not support good risk management practices. Wallentine (2009) argues that use of force practices, training regimes and reporting procedures are all negatively impacted by the continua concept. Arguing against all 'mechanical force continua' (in favour of enhanced training in threat assessment and more detailed reporting), Wallentine makes the observation that use of force reports are likely to be tailored 'to correlate...to the steps in the agency's continuum' where one exists (Wallentine, 2009: 6). More detailed and nuanced reporting procedures, in Wallentine's view, are 'a valuable risk management tool, helping prepare for litigation and perhaps even persuading potential plaintiffs' counsel from filing a lawsuit in the first place' (Wallentine, 2009: 7). On a broader view of risk management in policing, more detailed reporting is also desirable for its preventative and educative properties.

In any case there has clearly been a strong shift within policing policy, from the early 1990s onwards, towards circular, situational use of force models (and away from linear force continuum models). Notably, this shift coincides with the broader introduction of sublethal weapons and especially the proliferation of Taser International's heavily marketed weapons.

All Australian jurisdictions now utilise a version of this basic situational tactics model in their use of force policies (see figure 7 below).

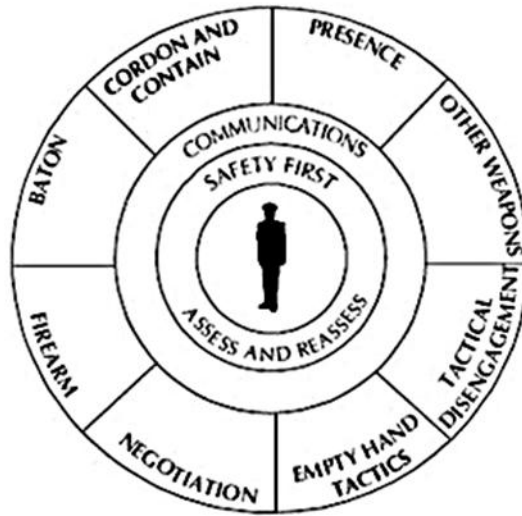


Figure 7: Circular Situational Tactical Options Use of Force Model

(source: Nicholson, 2008)

This situational rather than sequential model was first introduced by Victoria as part of Project Beacon at the same time as OC spray was introduced (The Royal New Zealand Police College, circa 2002). As can be seen, this model provides no indication of what level of force is proportionate to what kind of behaviour. A version of this simple model was then adopted by all Australian police and incorporated into the National Use of Force Guidelines in 1998 (Nicholson, 2008). This occurred despite the availability of the arguably more sophisticated Ontario model, developed in Canada in the early 1990s, versions of which have now been adopted in the US, Canada and New Zealand (see figure 8 overleaf).



Figure 8: Ontario Situational Behavioural Model

(source: Nicholson, 2008)

This model has developed into the Incident Management Intervention Model (IMIM) in Canada, and is used by the RCMP which operates federally and in most Canadian provinces. The IMIM incorporates both English and French language and captures more of the dynamic nature of critical police encounters, but arguably provides less concrete guidance to frontline officers than the more linear Ontario model which clearly indicates that where death or serious bodily harm is predicted, firearms are the appropriate response. (see figure 9 overleaf).

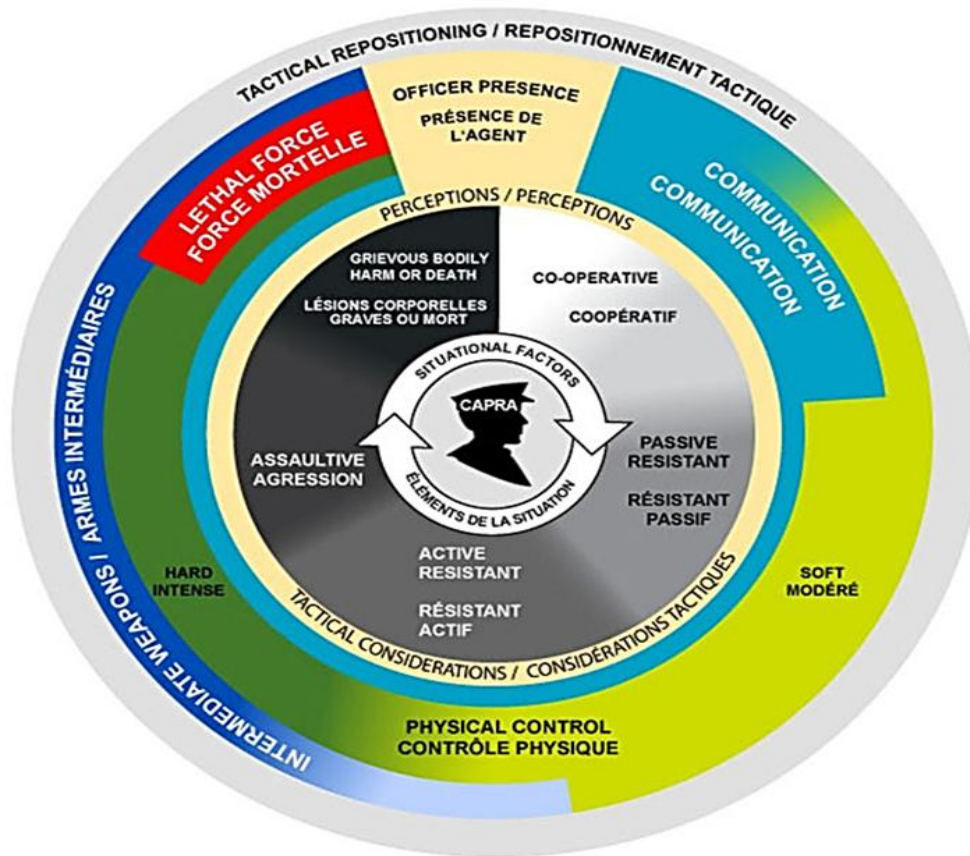


Figure 9: Canadian Incident Management Intervention Model

(source: Royal Canadian Mounted Police, at <http://www.rcmp-grc.gc.ca/ccaps-spcca/cew-ai/imim-migi-ann-eng.htm>)

This model indicates that hard impact weapons are appropriate only for assaultive behaviour and soft force for passive or resistant behaviour. Training would, presumably, provide the knowledge of whether CEWs are defined as hard or soft impact, but only this model is publicly accessible, reinforcing Buttle’s argument that such models provide more support to officer’s rights than those of citizens in a courtroom (Buttle, 2007, see below). This reinforces the sense that CEWs are designed to sit alongside sprays and perhaps batons in the sequential, but dynamic framework. Since public statements strongly suggest that CEWs reduce lethal force, it is therefore vital to know what directives are used in training and policy to augment the cognitive, pictorial tools that are used by police. Arguably some concrete directives should be offered in training settings that utilise the notion of a linear progression of tactical choices (Nicholson, 2008).

Buttle (2007) presents a well-grounded critique of such circular models, referred to by the British term of ‘conflict resolution’ models. In arguing that training British police in use of

force, based on such circular model, is both too infrequent to produce 'highly skilled users of force' and too focussed on teaching 'a simplistic offensive form of defense' (via a focus in training on weapons use), Buttle suggests that the British approach 'has no credible form of governance' (Buttle, 2007: 178). He argues:

Rather than one set of responses for one set of behaviours, the (circular) conflict resolution model relies on personal preference for a given strategy... The problem with leaving the definition of what is acceptable use of force to the subjective experience of individual officers is the potential for justification of inappropriate force...Unlike the continuum of force, the conflict resolution model offers no discrete categories that can be used to justify claims of excessive force made by members of the public (Buttle, 2007: 176).

Providing evidence for this view, Buttle draws on interview data gained by him during his own research:

*Officer 21: You may have somebody who's using the same offender profile, same level of violence, same impact factors...Then four different officers come up and they deal with it differently. So why is that? The reason why is because all the officers are different. Their decision is based on experience and **what they are confident with**. One may use a baton because they're quite confident with the baton. The next person isn't confident with the baton so they use CS (OC) because they've used CS before and experienced how often it worked so they've got the idea that they didn't get hurt. The next one doesn't like any of them. So he uses verbal skills, he talks to them and gets their confidence and brings them over (Buttle, 2007: 175-176, emphasis added).*

According to this argument, circular or situational models are 'too ambiguous to provide the appropriate instructions for the use of force' and are 'biased towards the justification of behaviour when the use of force becomes a legal matter' (Buttle, 2007: 177-178).

Still, confusion and contradiction are evident in this central debate - much more than is desirable when these discussions concern such a widely adopted use of force option (especially one with so many safety questions still hanging over it). Both the idea and the general term 'force continuum' are still frequently used in discussions of police use of force as a basic, organising philosophy (see Nicholson, 2008; National Institute of Justice, 2009). Where minimum force is considered important, it is difficult to abandon some sequentially based organising framework. At the same time, the Federal Law Enforcement Training Center, auspiced by the US Department of Homeland Security has recently removed the concept entirely from its training curriculum (Wallentine, 2009). In an Australian context, the Western Australian Police Commissioner was adamant in arguing that the force continuum was irrelevant when debating CEWs on a nationally televised current affairs program in 2010 (SBS, 2010):

I think there is a misguided view here, that there is some hierarchy (of) use of force options where the taser comes just below firearms. That is not the case. In Western Australia a

police officer can use a range of use of force options and there is no hierarchy...It is wrong to suggest there is some sort of hierarchy because we don't have a hierarchy of use of force options in Western Australia (SBS, 2010: transcript).

It might be considered misguided to assume that there is a hierarchy of options *today*, but it is clear that in the not too distant past the concept was prominently used to teach about and evaluate police use of force. That it has fallen from favour is evident in statements such as that quoted above and also policy documents. A similar denial of the force continuum's value can be found in Association of Chief Police Officer's (ACPO) Operational Use of Taser Policy (2008) which says:

2.1 In light of the Human Rights' Act the need for a range of 'less lethal' options, and personal safety tactical options in conflict management by police, has become an imperative for the service. Police are required to justify any use of force, showing that it was proportionate and legal, and that there was, at the time, an absolute necessity, particularly where potentially lethal force is used. Available less lethal technologies work in different ways and each may offer unique advantages in specific circumstances. The Association of Chief Police Officers (ACPO) believe that having a range of options available is likely to provide the most appropriate response to any given situation. This will include Conducted Energy Devices, HOSDB currently only authorise the Taser.

*2.2 It has been demonstrated that where Taser has been used, it has contributed to the effective resolution of the incident. Taser is not a replacement for existing personal safety tactical options, but is **an option that should be considered alongside others**, such as negotiation, batons, incapacitant sprays, dogs and L104A1 launchers. **These do not constitute a hierarchy of lawful force** and should be viewed as a range of approved options from which the most proportionate and appropriate should be selected, according to circumstances, in order to meet the obligations set out in this document (ACPO, 2008:2, emphasis added).*

Note here, ACPO make no specific mention of firearms at all in this statement, although it is clear that CEWs are not meant in any way to replace them and that they sit with a range of other sublethal options that, it is argued in this policy, should not be arranged in a hierarchy.

The denial and dismissal of linear or hierarchical use of force models is arguably linked to the introduction of sublethal weapons. It is in marketer's interest to encourage situational models if they wish to continue to market their weapons as life-saving technology in the absence of hard evidence that they can effectively replace firearms. It also assists police in justifying the acquisition of cutting edge policing technologies that allow them to appear more efficient and professional in line with the 'technofallacy' thesis (Corbett and Marx, 1991). The 'saving lives' mystique of CEWs (and other sublethal weapons) furthers a range

of interests which have ensured its propagation and have engendered attempts to reject hierarchical use of force models.

Arguably, from an operational policing perspective, and also from the perspective of parties who sit outside policing, hierarchies have significant benefits and there is no reason to sacrifice these benefits when developing more sophisticated use of force models. Some argue that calls to abandon the notion of force continua are based on straw man arguments: operational police do not assume that a suspect's behaviour will escalate in a predictable fashion and know very well that a continuum does not require them to cycle through each available option before arriving at the appropriate one (Nicholson, 2008; Fridell, Ijames and Serkow, 2011).

Nicholson (2008), an ex-police officer who produces an e-magazine that comments on Australian law enforcement issues, argues that operational police require very clear guidance about where use of force options sit in relation to one another for a range of important reasons. A clear sense of use of force tactical progressions is required for training police in use of force and providing them with assistance should they need to justify their actions to superiors or in court. It is also necessary for the purposes of providing clear representations of appropriate options for specific circumstances to those with outside interests, including the media, the legal community, independent oversight bodies and academics (Nicholson, 2008).

In criticising what he regards as deliberately ambiguous circular models, Nicholson argues that:

Australian Police agencies need to take a certain amount of responsibility for the actions of their Officers. Showing them an ambiguous model, and sending them to deal with violence, and then expecting those same Officers to justify their actions in Court is not sufficient, and that current thinking in use today needs to be abandoned. It is simply a form of neglect (Nicholson, 2008: 12 emphasis added).

For Nicholson (2008) and arguably for many other police practitioners, it is 'obvious that a clearly-defined model is better to learn and understand than something designed to be ambiguous' for the purpose of protecting policing organisations from litigation (Nicholson, 2008: 9). Clear and uncomplicated directives and respectful assumptions about officer's common sense capacities during use of force incidents are requirements of use of force training tools. Because of this, Nicholson argues strongly against the wholesale denunciation of linear models. He sees newer, circular use of force models as a valuable tool for incident managers and linear models as important training tools (Nicholson, 2008). He nominates three criteria for evaluating diagrammatical representations of use of force options as follows: they assist officers to select appropriate options for achieving safe and effective responses to a variety of critical incident scenarios; they illustrate clearly appropriate options to outside parties; and they clearly represent the need for officers to

constantly re-evaluate the appropriate options (Nicholson, 2008: 14). On this basis, Nicholson highlights the benefits of the CEW related diagram adopted recently by New Zealand. The following diagram is available to officers on a printed card which can be carried for easy reference:

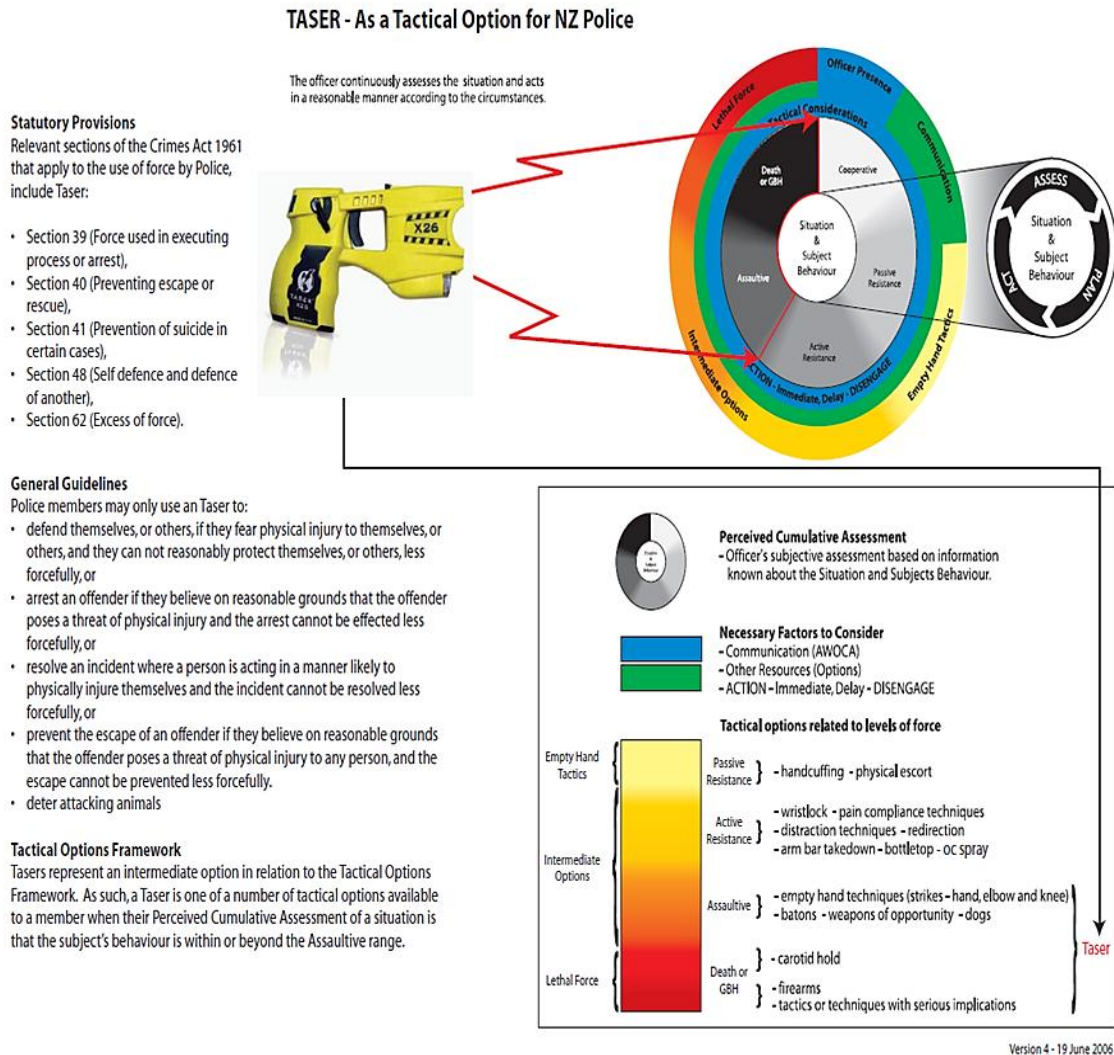


Figure 10: New Zealand Police Taser Tactical Option Card
 (source: www.police.govt.nz/resources/2006/taser-trial/taser-tactical-options-card.pdf)

Using clear language and a colour code this card clearly shows officers that Tasers® are meant to span the intermediate force and lethal force levels on a continuum. As will be demonstrated in the following section, Australian models have not presented this kind of information clearly. Having incorporated a clear linear continuum in relation to CEWs and

in providing an easily transportable diagram to operational police, New Zealand joins Canada in setting standards for CEW policy into the future.

New Zealand's model borrowed from Canada, which has been the major innovator in terms of use of force models over the last thirty years (Nicholson, 2008). CEW policy across Canadian jurisdictions has been tightened and made uniform as a result of the Braidwood Commission. What were once quite liberal policies, as reflected in Ryan's (2009) observations cited earlier in this chapter, were tightened in 2010 to reflect Braidwood's recommendations. In particular, a requirement to warn before deploying a CEW was added and the threshold for use raised to causing or about to cause bodily harm (Royal Canadian Mounted Police, 2010). In addition, six 'medically high risk' situations are clearly identified (probe mode deployment for longer than five seconds, elderly persons, children, a person that a member has reason to believe is pregnant, an acutely agitated or delirious person or someone a member has reason to believe has a medical condition that may be worsened by a CEW). CEW use has been defined as activating a CEW, drawing a CEW from its holster and also making reference to a CEW in the course of gaining control of a situation, which is the broadest definition of all jurisdictions examined in this analysis. RCMP are also required to request medical assistance, where possible, *before* deploying a CEW in a medically high risk situation.

The development of more precise and restricted CEW policies in Canada reflects a loss of public confidence in police which is clearly related to the introduction and use of CEWs. The title of the Braidwood Commissions report was *Restoring Public Confidence* (British Columbia, 2009). Not all Australian jurisdictions have followed this pattern, although most show the ripple effects of Canada's experience.

'A DIFFERENTIATED USE OF FORCE'

It has so far been argued that where sublethal weapons ought to sit in relation to other tactical options (especially firearms) in a use of force continuum is, as yet, far from settled. Internationally, nationally and regionally, the significant passage of time since the introduction of CEWs does not appear to have resolved the conundrum. In North America CEWs have been used as intermediate weapons since the early 1990s, although many agencies have subsequently tightened their formerly permissive policies. For example, in 2004 police in Florida were being pressured to tighten their policy because of reported abuses including the use of CEWs against two children by Miami-Dade police. The first of these incidents involved a six year old who was self-harming and the second a twelve year old girl who was running away from an officer (Kealing, 2004; Kreeger, 2006). Policy dictated that CEW use was permissible when a person was actively resisting arrest. A grand jury was held to inquire into key safety questions around use against vulnerable groups, especially children. The final report of the grand jury recommended that officers be provided with information about vulnerable groups against whom CEWs should not be used, including 'small children' (Kreeger, 2006: 8). This example is representative of a clear

pattern surrounding CEW use in Australia, where public outcry at controversial incidents has shaped and refined policy (usually making it more restrictive).

As discussed in Chapter Three, in response to the recommendations of the Braidwood Commission (2009) policy was also tightened in Canada to reflect a higher level of threat being required before the use of a CEW could be justified. The Braidwood Commission also recommended that use be confined to persons committing felonies only (British Columbia, 2009). This general trend towards tighter restrictions contrasts with British CEW guidelines which have broadened the permissions around CEW use. Predictably, police in Britain began constructing policy from a different standpoint from their North American counterparts, given their vastly different approaches to use of force.

British police began a trial of CEWS in 2003. They were initially restricted to Authorised Firearms Operators (AFOs) for use only 'in circumstances where authorized firearms officers are authorized to carry firearms' and 'only (to) be deployed alongside conventional firearms' (ACPO, 2007). However, in line with Dixon's (1997) arguments about policy morphing to incorporate practice, British deployment directives and policy have broadened in order to encapsulate the realities of CEW use in the field. This means they are now used by 'Specially Trained Units' (STUs) and their use has been approved outside firearms only incidents. This shift is justified by reference to Article 2 of the UN Basic Principles on the use of Force and Firearms which says:

Governments and law enforcement agencies should develop a range of means as broad as possible and equip law enforcement officials with various types of weapons and ammunition that would allow for a differentiated use of force and firearms (United Nations, 1990).

It is useful to examine the changes in wording that have accompanied the shift from a very restrictive to a more liberal policy.

In 2007, the policy designed for AFOs read as follows:

Taser is not a replacement for existing conflict management options, but is an option that should be considered alongside others, such as negotiation, batons, incapacitant sprays, dogs and baton guns. These do not constitute a hierarchy of lawful force and should be viewed as a range of approved options from which the most proportionate and appropriate should be selected, according to circumstances (ACPO, 2007: 2).

In 2008 however, as CEW use expanded in the UK, ACPO policy was adapted to include both AFOs and STUs, as mentioned above. Regulation 2.2 in the new policy for STUs remained the same, although 'conflict management options' became 'personal safety tactical options', placing an emphasis on individual responsibility and the need for responsible self-defence (see ACPO, 2008: 2). The STU policy provides guidance on CEW use 'outside of the firearms criteria'. It says:

6.3 The Taser should not be regarded as a replacement for other issued “work equipment” or for conventional firearms but rather one of a number of personal safety tactical options. An officer may also need to resort to another option if the device does not have the effect intended.

6.4 In circumstances where Taser officers have been deployed to an incident, the decision to deploy Taser will include the understanding that it accompanies the full range of conflict management options available to those officers.

6.5 It would be inappropriate for commanders or supervisory officers to attempt to restrict the deployment of a Taser trained officer to a particular use of force option (ACPO, 2008: 10).

The policy cautions officers about the single shot capacity of Taser X26® and against use on an armed person because of the potential for involuntary muscle contractions.

The move away from situating CEWs strictly alongside firearms in the UK reflects the reality that the weapon is not well suited to armed confrontations, but is extremely useful in controlling other physically threatening scenarios. Policy analysis clearly shows the utility of CEWs as intermediate weapons, not intended exclusively for saving lives, but also for affecting arrests in incidents which, in the officer’s view, may involve injury to police or suspects. The next chapter will explore this in detail in relation to Australian jurisdictions.

CONCLUSION

This chapter has provided a critique of use of force models that underpin CEW policy in national and international jurisdictions that use them. It demonstrates how the introduction of sublethal weapons has required the broadening of individual officer’s ability to use discretion, and how this has shaped use of force models in Western democracies including Canada, the United States, Britain, Australia and New Zealand. Situational use of force models have replaced the force continuum, although the continuum clearly emphasises the use of minimum force to a greater degree and is more restrictive around choice of weapons for particular circumstances. Many of the models currently in use are unclear or ambiguous about where CEWs sit in relation to firearms, tending to allow some elasticity in terms of what kinds of behaviours warrant their use. This clearly reflects the reality that CEWs do not carry an ‘explicit agenda’ (e.g. saving lives) but have a much broader remit in most jurisdictions. Only New Zealand (and possibly Canada) seem to provide clear instructions for their officers on this vital point.

The directives provided to police through policy and guidelines rests on the particular use of force model that underpins use of force training. This policy must carefully dictate a path between the parameters of overly restricting police options and allowing too much discretion in the face of imprecise directives. It remains unclear to what extent policy can effectively prevent the misuse or abuse of CEWs by police, but there is a clear imperative to

develop clear and practical directives for police who use them. This is essential for accountability, transparency and the occupational health and safety of police officers. The following chapter presents a detailed examination of CEW policy in each Australian jurisdiction (excluding SA and Tas where policies were not accessible). Modelled on an analysis of Canadian policy undertaken by the Braidwood Commission, the analysis is designed to interrogate the detail of Australian policy specifically in the light of broader international developments (British Columbia, 2009). The tabulated and discursive analysis will compare and contrast each state's directives to police before deploying a CEW, during the deployment and afterwards. It provides a foundation for assessment of these policies against the rhetoric used to support the introduction of the weapons, discussed in Chapter Three.

CHAPTER FIVE: JUMPING THE GUN - AUSTRALIAN CEW POLICY

The immediate focus of a national inquiry would be to provide assurance to the Australian public that our law enforcement agencies are acting lawfully and professionally and to provide clear and unequivocal guidance to those agencies as to what is acceptable and what is not in different situations.

The central focus of the inquiry should be on the use of Taser stun guns and capsicum spray as there is some difference between jurisdictions as to whether these new pieces of equipment can be lawfully applied only to regain control in very serious altercations where lives are at risk (Biles, 2010).

This chapter presents an analysis of CEW policy from all Australian jurisdictions where policies were available²⁰. It includes a tabulated policy analysis that has been modelled on the Braidwood Commission's analysis of Canadian CEW policies (see British Columbia, 2009: Appendices D, E and F). These tables complement a broader comparison of policy in Australia that considers pre-deployment, deployment and post deployment directives provided to police. Some aspects of policy such as technical advice, especially concerning the storage and maintenance of CEWs, have not been considered in any detail although they form a significant portion of the directives. The focus in this chapter remains on provisions that concern thresholds for use, situational restrictions around use, aftercare and reporting procedures in each jurisdiction. It also records a trend towards more restrictive policy during the first five years of CEWs being used by general duties police in Australia.

Many of these policy amendments can be traced to the handing down of the Braidwood Commission's comprehensive report on the circumstances of Robert Dziekanski's death. In QLD, these effects were almost immediate, as the controversial death of Antonio Galeano occurred just six days before the report was made public, in June 2009 (this is discussed further in Chapter Six). By May and June of 2010, WA and NT had both begun reviews of CEW policy and use. The Timeline that has been included as Appendix 1 shows this flow on

²⁰ QLD, WA, NSW, NT, Vic and AFP.

effect across Australian jurisdictions using CEWs at the time. This chapter tracks the path of policy development and content in Australia. The influence of Taser International's training programmes and User's Guides is more prominent in some states than others, and evidence of this influence is noted.

It should be mentioned at the outset that the AFP moved towards general issue of CEWs in mid-2011 and so this jurisdiction was a last minute inclusion in the research. The policy provided via a Freedom of Information application included significant chunks of redacted text and therefore the tabulation of the policy was difficult. The small amount of information made available has been included in this discussion, which notes areas where information was withheld. Also of note is the use in Victoria of two sources of directives for police, one in policy, included in the Chief Commissioner's Instructions (CCI) and the other in Pilot Guidelines provided in the Victoria Police Manual (VPM). The CCI has been updated several times in the course of the use of CEWs in that state, and this analysis is based on the policy that was obtained via the Freedom of Information application described in Chapter One. The difference between policy and guidelines may be only semantic, but definitions of both terms suggest that the former is more binding than the latter term which allows for use of officer discretion in utilising that guidance in a given circumstance.

The following chapter presents a breakdown of policy, regulations and guidelines that follows a temporal framework. It illustrates broad trends that are observable in Australian CEW policy development to date. It intends to provide a 'pulse-check' of current policy as well as a reference point for future efforts to critically analyse such policy.

PRE-DEPLOYMENT CONSIDERATIONS

UNDUE INFLUENCE?

A key concern around CEWs internationally has been the role played by product manufacturers, marketers and distributors in providing training materials to police. Taser International provides a Master Instructor's course which certifies officers to become trainers. Although this thesis has not sought to analyse Australian CEW training materials in detail, this would be a useful undertaking for the future. Examined here instead is the extent to which the influence of weapon's marketers is evident in policy itself. In the view of the Braidwood Commission, it is 'inappropriate for law enforcement agencies to rely exclusively on the manufacturer's training materials, when they encroach into policy areas or issues of medical risks that may be under dispute' (British Columbia, 2009: 142). In Braidwood's view, there should be a clear separation between *how* to use a CEW (which should be the remit of trainers) and *when* to use one (which should be governed by policy developed by government in consultation with communities and policing agencies). It is inappropriate for policy to be guided by manufacturer's advice. Braidwood's recommendation to Canadian police was that Taser International's advice should therefore be confined to how the weapon works best and how it ought to be maintained.

In Australia, WA, NSW and NT policies reveal the influence of Taser International in various ways. WA is the only jurisdiction that makes specific reference to 'Excited Delirium' in its policy, which as previously argued is a medical condition that Taser International and its affiliates have advocated strongly as the real cause when people die following the use of a CEW. It is assumed that this emphasis is also reflected in training advice in jurisdictions reflecting a strong reliance on Taser International material. This subject was extensively investigated during the Braidwood Commission where a range of psychiatric and medical experts offered their opinions about the reasonableness of using a CEW against a person who may, on the basis of Taser International's advice, be considered by police to be suffering from 'Excited Delirium'. The experts unanimously rejected the usefulness of the term and argued instead that subjects were likely to be experiencing an 'acute delirium' which is a syndrome of symptoms and not a disease in itself. At the Braidwood hearing, Dr. Joseph Noone expressed the opinion that:

Highly agitated individuals, even more so if they are in delirium, are at very high risk of further medical compromise. To "taser" such vulnerable individuals would be contraindicated medically due to the risk of death (British Columbia, 2009: 253-254).

Yet, CEW use against such people is not prohibited in any Australian jurisdiction. In WA, officers are warned only that if they choose to deploy a CEW against a subject displaying signs of 'Excited Delirium' their choice to do so will be 'subjected to a greater degree of scrutiny' (Force Regulation 1.6.1: 2010).

Policy in that state was overhauled in 2010 following the CCC report, as explained in Chapter Three. The later 2010 policy distances itself from Taser International somewhat, by rephrasing advice about recertification from 'Master Instructors can maintain their status by recertification through Taser International at the discretion of the Officer in Charge of OSTTU' in 2007 to 'Master Instructors can maintain their status by recertification at the discretion of the Officer in Charge of OSTTU' in 2010. This is perhaps an attempt to deflect criticism, but the Master Instructors course is still compiled by Taser International employees.

NT policy also reflects significant reliance on Taser International material, utilising graphics and sometimes direct text from Taser International material. It uses the term ECD, the acronym preferred by the manufacturer (labelling the item a device instead of a weapon). It also makes reference to Taser International Instructor Certification lesson plans in presenting the case for the weapon's safety (Northern Territory Police , 2009: 9). The NT policy also includes Taser International's product warning about continuous, repeated and simultaneous exposures saying:

Minimize Repeated, Continuous, or Simultaneous Exposures. Reasonable efforts should be made to minimize the number of ECD exposures. ECD Users

should use the lowest number of ECD exposures that are objectively reasonable to accomplish lawful objectives and should reassess the subject's resistance level before initiating or continuing the exposure (Northern Territory Police, 2009:21).

Such exposures are prohibited in some jurisdictions, as this is further discussed in the following section. NSW also uses the acronym ECD, provides a history of Taser International's product in its policy, and utilises Taser International certification for their instructors.

The company's influence in Australia, however, can still be regarded as limited compared to the US. This is evidenced by the inconsistency in Australian jurisdictions on whether or not voluntary exposure to a CEW during training is allowed. It has been argued that such exposure is likely to result in officers developing a greater appreciation of the effects of the weapon (Goldman, 2008). Research performed by Taser International's Mark Kroll reveals that 55.5% of 2082 respondents to a survey (sent to all Taser® certified instructors, although it is not noted which jurisdictions were included) encouraged exposure to Taser® while 27.8% made it mandatory (Kroll, 2008). Taser International Training Bulletins have recommended a 'sample hit' in the past (British Columbia, 2009: 139). In the Introduction to the Taser International affiliated volume, *TASER® Conducted Electrical Weapons: Physiology, Pathology and Law*, 'Dr. Jeffrey Ho proclaims 'the ultimate level of commitment' having 'experienced the amazing effects of this weapon' and joining 'the special club of over 1.6 million people that know what it feels like to have your body briefly controlled by special electrical waveforms' (Ho in Kroll and Ho, 2009: xv). The internet, especially YouTube, is replete with examples of officers being exposed to CEWs during training and weapon's distributors have been filmed 'taking a hit' in line with what appears to be the Taser International ethos. The number of fatality free voluntary exposures has been widely used to provide evidence of the weapon's safety (Kroll, 2008; Kroll and Ho, 2009). There have however been injuries to officers during training in the US and subsequent legal action (Goldman, 2008; Trahan, 2011). This is despite the extensive steps taken by Taser International to warn officers of the potential for harm presented by CEW exposure (see Appendix Two: 201).

The Braidwood Commission recommended that voluntary exposures be prohibited. Most Australian states are clear on this matter and do not allow voluntary exposure under any circumstances, with the exception of Queensland and Western Australia. Queensland policy allows voluntary exposures undertaken as part of training by a qualified instructor (QPS Reg 14.23.7, 2009). The policy states:

*Exposure is to be limited to one five second cycle and is not to occur unless the officer being exposed has read a QPS approved facts/information sheet **and signed the appropriate waiver prior to the exposure** (QPS Reg. 14.23.7, 2009).*

WA has moved slightly in their position on voluntary exposures between the 2007 and 2010 policy. In 2007, 'under no circumstances' could voluntary exposure occur during training, but by 2010 this had altered to allowing voluntary training exposures 'under no circumstances...unless specifically authorised by the Commissioner of Police'. The reasons for this change are unclear, but might reflect a desire on the part of trainees to experience the effects of a CEW first hand. There is a demonstrable kudos attached to showing you can 'take a hit' and certainly the tendency towards machismo is often noted in the literature as a key characteristic of police cultures (James and Warren, 1995; Reiner, 1985, 2000b). Reiner, in particular, has emphasised the 'action-oriented' nature of operational police culture (Reiner, 2000b). This is especially evident around the issue of voluntary exposure. As Australian Rules footballer Adam McPhee, son-in-law to George Hateley, enthused in a Melbourne newspaper, he's been 'Tasered', his wife's been 'Tasered' and his baby son 'will get Tasered when he's old enough' (Byrne, Coster and Firkin, 2009). As Jeffrey Ho's statement quoted above reflects, such eagerness is not confined to Australian distributors: the UK distributor also boasted in 2007 that he had been 'Tasered' 200 times (BBC News, 2007). It is not known how often such voluntary exposures occur in Australia and this would be a fruitful avenue for future exploration in terms of understanding the sociological forces behind such enthusiasm.

Another detectable variance in Australian policies relates to their accessibility. Although Britain, Canada and many US jurisdictions have opened their policies up to public scrutiny by making them available on the internet, only QLD and NSW have followed suit in Australia. Western Australian policy was tabled in Parliament and hence is also accessible, although perhaps not so readily for members of the general public. Police in the Northern Territory provided me with access to their review document, as well as their updated policy document for this research when requested. To gain access to policies in the three other states, Vic, SA and Tas, Freedom of Information applications were undertaken. This was also necessary in order to access AFP policy, as already mentioned, which was released in a redacted form and did not reveal many of the most salient details. In Victoria, the FOI process was undertaken in conjunction with the Federation of Community Legal Centres, which resulted in access to all policies, including the SOG and the FRU. Two FOI applications, which were taken to the level of review, were unsuccessful (in SA and Tas).

Police organizations that refused to grant access to policies (or redacted them) all cited operational secrecy as the key reason. This imperative was considered more valuable than the benefits of transparency, principally accountability and increased legitimacy. It is, however, difficult to see what operational secrets could be divulged about CEW in one state when policies are freely available in other states (and operator's manuals for Tasers® can be downloaded from the internet). Certainly, one is entitled to presume that CEWs operate and are maintained in largely the same ways across the country. Policy items such as those examined here, which all reflect the Braidwood Commission's analysis and capture the range of potential deficiencies in policy (which can be seen to apply universally), are

unlikely to jeopardize operational secrets in any case. Still, some jurisdictions refused to assist the current research, although other states saw it as extremely valuable, expressing interest in the outcome. This variance in transparency is unacceptable. All CEW policies should be publicly accessible for the central purpose of maintaining legitimacy through public trust. Some Australian policing agencies are evidently more mindful of this factor than others.

The final point for discussion in this analysis of pre-deployment policy items is the manner in which Australian policies define CEW use. Again, variance can be observed. The scope of definitions is important for its implications in terms of reporting, accountability and successful oversight and also for attempts to prevent mission creep. Those jurisdictions with broad definitions, and which require record keeping in relation to the full range of CEW functions, open their level of reliance on CEWs to greater scrutiny. Such information as how frequently CEWs are used to threaten but are not deployed and the circumstances in which such presentations occur is vital to know if the use of CEWs is to be properly understood and regulated. No Australian jurisdiction has broadened their definition to the extent that even a verbal threat to use a CEW must be recorded, as in Canada (British Columbia, 2009). There are obvious difficulties in ensuring that such uses were accurately reported and police reluctance to commit to more paperwork can be predicted. As these issues have never been examined in detail, however, it is difficult to draw conclusions about the value of such broad definitions although they make sense to those concerned with accountable use of force.

The coercive capacity of CEWs is well documented and the effect of drawing and pointing a CEW (or verbalisations that threaten same) provide a fertile ground for inappropriate use. Deployments in probe or drive stun mode are required to be recorded in all Australian jurisdictions and all except Victoria require the reporting of CEW presentations. While defining use as 'when CED is drawn from the holster' Victoria only requires reporting of probe deployment or use in drive stun mode (Victoria Police, 2010: 5)²¹. Victoria and NSW are set apart from other states because they utilise Tasercams, which operated when the safety catch is released, capturing video and audio. Policy in both states requires the cameras to be switched on as soon as a CEW is unholstered. This works to ensure that some record of every threat to use a CEW exists. In practice, these requirements may work to

²¹ It is understood from personal correspondence that this policy has since been updated to require a record to be kept when the CEW is unholstered at the discretion of the senior officer (Personal Correspondence, 2012). The old policy did require the device to be switched on when unholstered (this activates the audio and video recording attachment - Tasercam).

discourage compliance with policy, as officers may seek to avoid what they may perceive as excessive scrutiny. A lot rests on individual officer's discretion as to how transparent patterns of use can be.

On the whole though, Australian jurisdictions reflect an understanding of the importance of clear definitions for the purpose of accurate reporting. It is entirely another matter, beyond the scope of the present work, whether the required reporting occurs and whether adequate checks are kept on those records. Victoria's Office of Police Integrity found poor record keeping practices in relation to OC spray (Office of Police Integrity, 2009). There is a significant role for integrity agencies in Australia in ensuring that this aspect of CEW use is carefully scrutinised.

THRESHOLDS FOR USE

Each Australian state articulates thresholds for CEW use quite differently. Some policies accentuate the CEW's utility as a defensive or protective weapon, others their capacity to affect arrest or to resolve a situation without injury. QLD and WA have both altered the wording of their policies to bring them into line with the Braidwood recommendation that thresholds for use should be determined by whether a subject is actually causing bodily harm or it is reasonably foreseeable that they will imminently cause such harm. They require a threat of serious injury rather than just injury in their policies. The tightening of policy in these states and the variety of thresholds offered to police across Australian jurisdictions is reflected in the table in Appendix Three (see Table 4: 209).

The table shows the tightening of thresholds in WA and QLD. QLD policy, updated in 2009 presents just one key justification, preventing serious injury. This represents a significant narrowing of previous criteria. Physical assault to police and active resistance to police were dropped from the new policy, as was 'attempting to apply physical force to anyone'. This significant change followed the CMC-QPS report on policy, training and monitoring which followed the death of Antonio Galeano, as mentioned.

A similar requirement for preventing serious injury is also present in Victorian policy, which also requires that other tactical options and de-escalation attempts be considered inappropriate before CEWs can be deployed. NSW is the only jurisdiction to explicitly mention the protection of human life as one of the justifications for CEW use, which is surprising given the emphasis on saving lives amid the CEW public relations rhetoric outlined in Chapter Three. The NT, on the other hand, added 'real and imminent risk of serious harm' in its updated policy, which expanded an already broad set of thresholds that includes defence against injury, affecting arrest where injury is threatened (note that seriousness is not a consideration), resolving incidents where injury is threatened and defending against attacking animals. No policy recommends the use of a CEW to avoid a deadly threat. The range of thresholds available all demonstrate the role played by CEWs in controlling threatening scenarios and preventing injuries, rather than providing any evidence that they are intended to replace the use of firearms. Victoria's CCI guidelines

direct that only one CEW should be carried in two person patrols, ensuring that officer's deploying the weapon can always be covered by a firearm. Officers on one person patrol or 'one up' are not permitted to carry a CEW. Victoria is the only state to enshrine this directive in policy, although the NT does advise about the importance of having back-up when deploying a CEW and NSW provides that only senior officers can carry CEWs 'one up'.

DEPLOYMENT CONSIDERATIONS

GENERAL ISSUES

The material discussed in this section is presented in tabulated form in Appendix Four (Table 5: 211). Beginning with the issue of requirements to provide verbal warnings, only the NT makes warnings mandatory whereas in all other states such warnings are only required 'where practical'. There may be circumstances where it is tactically difficult or undesirable to warn a suspect of the presence of a CEW and this is probably the main reason for the high degree of equivocation on this issue that is evident across Australian jurisdictions. Another deterrent capacity of the CEW is its laser spotting or laser painting capacity, the use of which is advised by policy in NSW and NT only. These two jurisdictions also advise arcing or sparking of the weapon as warnings. A Taser® CEW makes a menacing electrical sparking sound when used in this mode which may add to the likelihood of surrender without deployment. In the X26© model, this can only be achieved when the probe cartridge is not connected. The X2© can spark with the cartridge attached. Interestingly, one jurisdiction, WA, specifically advises against arcing, arguing that this practice may reduce the effectiveness and battery life of the CEW.

In terms of the key issue of multiple deployment only the NT provides specific guidance to police on the number of CEW cycles allowed:

if an incident requires the continuous or multiple deployment of an ECD/s for more than three (3) cycles (15 continuous seconds), members must re-assess all the risks and consider all use of force options in order to resolve the incident with the least amount of force possible (Northern Territory Police, 2009: 51).

All other jurisdictions are far less precise on this matter, as will be discussed in more detail under the heading Modes of Use.

The NT also advises specifically about the need for back-up when facing a subject armed with an edged weapon, as Vic have required carriage by one officer only and confined CEWs to two person patrols. All other jurisdictions have overlooked this potentially important directive which serves to highlight the potentiality of CEW failure to operational police. Such advice should be clearly provided in all CEW policies. Explicit information on the links between CEW use and deaths or serious harm is provided in three jurisdictions only, QLD (since 2009), NSW and NT. It is not known what advice is offered to police in each jurisdiction during training.

TARGETING ADVICE

The targeting advice included is remarkably inconsistent across Australian CEW policies. Targeting advice is a key aspect of CEW policy as experience has shown that some sites on the body are more vulnerable to injury when a CEW barb is embedded. Also, medical researchers independent of Taser International have demonstrated the propensity of a CEW to affect heart rhythms increases when CEW barbs are vectored across the heart (British Columbia, 2009: 228; Robb, Close, Furyk and Aitken, 2011). Only three jurisdictions provide explicit warnings against deployment to the chest; WA has done so since 2010, the NT since 2009 and also Vic, although all stop short of prohibiting such deployments. As mentioned, new information about appropriate target areas for CEWs has been consternating to police. The design of CEWs, in replicating a firearm, is intended to allow reliance on reflexes developed during firearms training. In such training, officers shoot at the largest body mass, the centre of the chest. The NT advises officers to avoid the chest 'where practicable' and WA identifies such a deployment as a risk situation that will be subjected to greater scrutiny. In Vic, chest deployments constitute a 'medically high-risk' situation. Given that the level of uncertainty about the risks associated with chest deployments caused Taser International to add a new product warning in 2009, it is concerning that these warnings do not appear in all Australian CEW policies (TASER International, 2009).

In relation to other vulnerable areas of the body, only the face and eyes are universally identified as targets to avoid. Only Vic identifies throat, while NT, WA and Vic identify the groin. Once again, given the significant pain and potential for injury presented by CEWs, there should be nationally uniform guidelines to regulate the directions and advice offered to operational police. The variation that is evident in Australian policy does little to engender confidence that all CEW policies are as comprehensive as they should be.

WARNINGS PROVIDED TO POLICE

The policy items discussed so far tell police what they *ought* to do in relation to CEW deployments. Policies also present some explicit warnings to assist police in making decisions about what they *ought not* to do. These also play an important role in regulation of use of force. Warnings provided to police using CEWs across Australia fall into three categories: the purposes for which CEWs can be justifiably be used, the contexts and environments of their use and the mode of use. Compared to the latter two categories, warnings about purpose are relatively few and are particularly disparate. Only NT policy specifically mentions that CEWs must not be used as a compliance measure, while QLD and Victoria warn against use for punitive or coercive purposes or to rouse unconscious people. The other states include no specific advice about purposes for which CEWs should *not* be used. Arguably providing these negative boundaries is a key way to assist decision making, especially when complemented by a range of positive boundaries. Not only do police need

clear advice on when to deploy CEWs, but also when they should not be considered an appropriate option.

There are many more warnings provided concerning the context or environment of an event. All states except WA agree that CEWs are not to be used against passive resistors (an item that is both purpose and context related). Vic and QLD note that CEWs are not intended for crowd control. All states but NSW warn against use on occupants of vehicles, or on people in handcuffs. Vic and QLD include caveats with their warning about handcuffed subjects, such as 'except in extreme circumstances to avoid imminent injury'. Only WA and NT note a fairly universal warning, internationally speaking, about not deploying a CEW on a subject who is in or near water (one of the earliest CEW proximate deaths in the US was of a man standing in a body of water) (Allen, 1992). The jurisdictions are unanimous in warning against secondary injuries due to falling from a height and against using a CEW near explosives or flammable gases, although NSW is less explicit in its warning when compared to other states. QLD is the only jurisdiction to warn against using a CEW near OC spray, although Victoria mentions the necessity of carrying CEW compatible OC Streamer when carrying a Taser®. It is possible that other jurisdictions have also acquired non-flammable OC so do not need to provide such a warning. The final item in the context category is the warning against using a CEW against someone with a firearm (see Appendix Four: 208)). Only the NT provides this very telling warning, which mirrors New Zealand's policy. The extent to which other jurisdictions reinforce this point in training, if at all, is not known. The observation of police training would be a useful avenue for future researchers wishing to provide less speculative assessments of this policy item.

It is interesting to note the different language that is used to deliver these warnings in various jurisdictions. For instance, the NT uses the phrase 'should not' (bolded in red) before listing its policy items. QLD is also clear, saying 'a Taser should not be used in either mode' before listing their prohibitions. Both jurisdictions follow this with a range of caveats, however, such as 'unless exceptional circumstances exist' and 'where practicable' WA and Vic are evidently also reluctant to be overly restrictive of officers' discretion. The policies bring risks to the attention of police but do not advise directly against any of them. Instead they remind officers that these are high risk deployments which may be subjected to greater scrutiny. Arguably, this propensity to leave a 'grey area' means that policy does not provide officers with the guidance that a person who is unfamiliar with the history of CEW use internationally might need in order to make justifiable decisions about CEW use.

NSW policy stands out because it presents very few specific warnings to officers. Advice about environmental hazards is offered in a single paragraph and says:

Assessment of the surrounding environment should be made prior to the use of TASER, with consideration given to crowded situations and secondary hazards, for example, location, flammables, traffic hazards and proximity to bodies of water, etc.(New South Wales Police Force, 2011: 15)

The only other context warning provided is against use on passive non-compliant subjects (NEW SOUTH WALES POLICE FORCE, 2010: 17). It has to be noted, however, that the policy that appears on the internet is intended for the public and perhaps police have included more specific warnings in the policy they provide to guide officers. It is possible that senior police in NSW consider that making such warnings public may jeopardise their operational safety. Unless this is the case, or warnings are provided in training rather than in policy (which is unacceptable in terms of transparency in any case) then NSW policy is extremely deficient when compared to other states on the provision of clear warnings to their officers about identified hazardous contexts for CEW deployment.

Moving on to consider policy items concerning the mode of use, again there is a lack of agreement on the limits of appropriate CEW operation. All Australian policies allow for use in drive stun mode, although WA has restricted use in this mode to circuit completion only. This mode of use will complete the neuro-muscular capture of a CEW when only one barb makes contact with a subject. If police are able to get close enough to a person to apply a drive stun this will complete the circuit and allow police to control them. Vic allows drive stun for this purpose and also when probe mode will be ineffective due to close range and people are at risk. NSW also stipulates that drive stun is only allowed in exigent or exceptional circumstances.

In terms of the important question of how the number of CEW deployments are limited by policy, the analysis shows that Australian jurisdictions all identify multiple deployments as risky to a greater or lesser extent, although QLD is the only jurisdiction that explicitly prohibits the use of more than one CEW at a subject simultaneously, saying officers 'must not' deploy CEWs in this way. It has done this subsequent to the death of Antonio Galeano, who died following up to 28 CEW deployments (according to the downloaded data from the device). The previous policy had included no such warning.

In relation to multiple deployments of a single device QLD's 2009 policy is less direct, stating:

Officers should be aware that there may be technical or physiological reasons why the device is not working as expected on a particular individual. Therefore, if the initial application of the Taser in either the probe or drive stun modes is not effective, officers should reassess the situation and consider other available use of force options.

Officers are not to use the Taser in a prolonged fashion by holding the trigger down for a period greater than five seconds unless exceptional circumstances exist.

Additional cycles (one trigger pull – five seconds) may be applied in exceptional circumstances after the officer has reassessed the situation prior to each additional cycle.

Officers are reminded that a subsequent use of the Taser or any prolonged use (greater than five seconds) will be scrutinised and will need to be justified. While all use of force is scrutinised, officers should be aware that the greater the use (multiple or prolonged) of a Taser, the greater the level of scrutiny that will be applied.

Officers should be aware that multiple or prolonged uses of a Taser have been linked to deaths, particularly where:

(i) use of the Taser was accompanied by the use of restraints or chemical incapacitant sprays (e.g. OC spray);

(ii) subjects had underlying health problems such as heart conditions or mental illness;

(iii) subjects were under the influence of drugs and/or alcohol;

(iv) subjects were struggling violently for a sustained period; or

(v) a combination of these factors existed.

There are cases where such persons exposed to the effects of Taser have died some time after being exposed. It is however, recognised that there are circumstances where the only alternative may be the use of a potentially lethal firearm or where the activation of the Taser irrespective of the additional risk is absolutely necessary to protect life (Queensland Police Service, 2009).

This provides officers with a detailed explanation of the risks involved with prolonged or multiple deployment, but stops short of expressly prohibiting such use. The NT policy directly cites Taser International's warning about prolonged deployment, as mentioned previously. It also says:

*Members need to be cognisant of the fact that multiple, repeated or continuous deployment of an ECD on a human subject **will increase the risk of injury to that person.** Therefore multiple, repeated or continuous deployment of an ECD should be avoided where operationally practicable. It is recognised that resolution of an incident may require, in rare circumstances, multiple, repeated or continuous deployment of an ECD. In such circumstances members must continually assess all of the risks with the view to minimising the number and frequency of ECD usage upon a human subject. This must include comprehensively assessing the safety risks to member/s and others present while considering all use of force options available (Northern Territory Police, 2009: 21 emphasis original).*

These two jurisdictions emphasise the need for constant reassessment when deciding about how many times to use a CEW, depending on the circumstances.

Multiple deployment is also one of the few warnings included in the NSW policy, but it also stops short of prohibiting such use stating:

Multiple use of the TASER should be avoided where practicable and must be justified in all the circumstances following assessment of the subject and in accordance with the Tactical Options Model. Note, multiple cycles or prolonged use of TASER may increase the risk of serious injury or death (New South Wales Police Force, 2011: 17).

In Victoria multiple deployment (defined in that state as activation of probe mode for more than five seconds) is identified as a medically high risk situation, but is not directly prohibited in any way. Rather, the policy offers the advice that ‘members should be mindful that deployment of a CED in (such) circumstances may increase the medical risk’ (Victoria Police, 2010: 3).

The regulation of multiple deployments represents one of the major sticking points in the regulation of CEW use internationally. The Braidwood Commission recommended that multiple uses be avoided ‘unless an officer is satisfied, on reasonable grounds, that the five-second discharge was not effective in eliminating the risk of bodily harm and a further discharge will be effective’ (British Columbia, 2009:20). Considering the large body of evidence suggesting that multiple deployment represents the most dangerous mode of CEW use, it is interesting to note the degree to which CEW policies nationally and internationally provide information to officers about these dangers, while placing the burden of deciding when to repeat CEW use on operational police. This issue will be further discussed in Chapter Six and also in the Conclusion of the thesis.

VULNERABLE GROUPS

It is now well established that some people are more vulnerable to negative outcomes from CEW use than others. These groups can be distinguished as those who have personal characteristics that make them vulnerable and those who have health conditions that make them so. Australian jurisdictions do not yet agree on these issues, and they provide different advice to their officers. As the Table 5 (Appendix Four: 211) shows, NSW has either chosen to exclude the identification of vulnerable groups from its policy or it is providing this advice during CEW training (see pg. 210). The publicly available policy in NSW provides no advice to officers whatsoever that might help them (or the public) decide whether a subject presented a reasonable candidate for CEW use, unlike other states where elderly people, children or juveniles and pregnant women are all clearly identified as vulnerable to negative after effects of CEW use.

NT is the only jurisdiction to specifically identify and address the issue of the possibility of increased risk when using CEWs on Indigenous Australians. In Chapter Seven of the policy entitled ‘At Risk Persons’, NT reinforces the possibility of injury or death following CEW use and identifies the level of risk as a factor of both how the CEW is used and the characteristics of the person it is used on. Eight at risk groups are identified:

- *The very young*
- *The very old*
- *Pregnant women*
- *Those with pre-existing cardiac problems or lung disease*
- *Osteoporosis and pre-existing bone, muscle, joint or ligament problems.*
- *People with a drug dependency*
- *People who experience mental illness*
- *People with alcohol addictions* (Northern Territory Police, 2009: 27).

Although perhaps expressed in less than desirable terms, the NT acknowledges the high number of interactions between police and Aboriginal people and sets it against the reality that Aboriginal people do suffer greater rates of disease than other Australians, especially cardiovascular disease which is the leading cause of death amongst Aboriginal and Torres Strait Island people (Heart Foundation, 2008; Heart Foundation, 2011). Officers are advised that a CEW 'should not be deployed upon any human subject' within these categories 'where practicable'. The policy then goes on to say:

As aboriginal people make up the greatest portion of those arrested within the Northern Territory, the population on which an ECD is likely to be employed will contain a significant portion of these individuals. This group has a significantly higher chance of heart disease, lung disease and other illnesses which lower their overall health than in the broader population.

When considering all of the circumstances and assessing the safety risks to members and others present of any particular incident, members must take into account not only the above at risk person types but the aboriginality of the human subject (Northern Territory Police, 2009: 27 emphasis original).

One in three Territorians identified themselves as Indigenous in the 2006 census, and the NT has the fourth highest number of Indigenous people in Australian jurisdictions (66,600) (Australian Bureau of Statistics, 2007). Both NSW and QLD each have an Indigenous population of almost 150,000 and yet include no acknowledgement of the increased vulnerabilities of this population group. Three of the six deaths that have occurred in Australia proximate to CEW use to date have involved Aboriginal men, as discussed in Chapter Six. Suffice to say for now that this factor is a serious and glaring hole in Australian policy and provides a key rationale for the introduction of nationally uniform guidelines developed for an Australian context.

The NT identifies the greatest number of vulnerabilities and risk factors associated with CEW use in its policy (including use against persons with a firearm), but like the other jurisdictions, it stops short of forbidding CEW use against any of these groups:

In each of the circumstances mentioned above there is no specific cut off level or absolute prohibition point but the characteristic mentioned is a factor for use that must be balanced against other identified risks that may exist. (Northern Territory Police, 2009: 19).

In terms of specific vulnerabilities, WA mentions just four that are specific to a subject's health; heart conditions, 'Excited Delirium', known or suspected mental health issues and finally a rather odd policy item – 'subjects who do not recover within a reasonable time' (WA, 2010: FR-1.6.1). This last item is perhaps intended to warn against repeated deployments of CEWs. In any case, WA compares very poorly with other jurisdictions (although the publicly available NSW policy is worse). Other states provide a more comprehensive and reasonable set of warnings and identified vulnerabilities to police, although as mentioned they do so using different language and are extremely reticent in terms of absolute prohibitions even in circumstances that are known to be high risk.

The deployment directives provided to police across Australia are very inconsistent and each jurisdiction seems to have something to learn from the others. While the NT, QLD and Vic list a comprehensive range of warnings and restrictions although all arrive with caveats of various sorts that ensure that policing organisations can always blame officers for poor decisions when things go wrong. WA, QLD and NSW fail to alert their officers to the increased vulnerability of Aboriginal Australians, despite having the three highest populations in terms of pure numbers (Australian Bureau of Statistics, 2007). Significant improvements will need to be made if Australian police are to be given the reliable and independent information they need to safely carry sublethal weapons into their workplace.

POST-DEPLOYMENT CONSIDERATIONS

The final aspect of policy considered in this discussion is the advice offered to police about what to do after a CEW had been used. Once again, a range of requirements can be found in Australian policy, reflecting quite diverse cultures of accountability across the states. These items are organised around three themes: aftercare, reporting requirements and evidence collection.

AFTERCARE REQUIREMENTS

All states provide advice to their officers regarding appropriate aftercare following CEW deployment. Only NSW, NT (since 2009) and Vic all make medical attention mandatory after a deployment. QLD directs the deploying officer to ensure first aid or medical attention is provided 'if required' (QLD 2009: 14.23.9). WA stops short of a blanket requirement for medical care and instead provides officers with a 'Taser Aftercare Kit' and requires members to remove CEW probes and provide first aid:

Removal of the probes by members is only permitted in those circumstances where the probes have not embedded themselves in the areas of the body described above. Where removal is appropriate and it is practicable to do so, the wounds should be treated at the scene with a sterile wipe and a small 'band aid' from the Taser Aftercare Kit. If not practicable at the time, then such treatment is to be administered as soon as possible and prior to release from custody (Western Australia Police, 2010: 1.6.7).

Officers in WA are also provided with a broad list of circumstances in which a situation becomes a medical emergency requiring urgent medical attention. Where a person has a known or suspected heart condition, is displaying signs of positional asphyxia or 'Excited Delirium' or has had a significant blow to the head as a result of a CEW related fall, policy calls for an ambulance to be summoned 'as a matter of urgency'. The policy also stipulates, in the same section but in a different set of dot points, that officers 'must seek medical care' for 'the subject' when they are known, suspected or claim to be pregnant or suffering from mental health conditions. Further, medical assistance must be 'provided immediately' if a person does not recover within a reasonable time, asks for it, is reasonably suspected of suffering from a medical condition or has the probes embedded in a sensitive body part (such as eyes, tongue, lips or genitals). It is not made clear in the policy whether 'medical assistance' constitutes basic aftercare techniques or professional medical assessment. Arguably, policy is deliberately ambiguous about such issues in order to provide officers with as much information as possible whilst also avoiding direct liability being attributable to the organisation when undesirable outcomes occur.

Some Australian jurisdictions have gone a step further than the Braidwood Commission's benchmark recommendation that paramedics be called to 'every medically high-risk situation, preferably before deployment of a conducted energy weapon or, if that is not feasible, then as soon as practicable thereafter' (British Columbia, 2009: 21). The Commission defined medically high-risk as:

Medically high-risk situations include, but are not limited to:

- *deployment in probe mode across the subject's chest;*
- *deployment in probe mode for longer than five seconds;*
- *deployment in any mode against:*
 - *an emotionally disturbed person;*
 - *an elderly person;*
 - *a person who the officer has reason to believe is pregnant; or*
 - *a person who the officer has reason to believe has a medical condition that may be worsened because of the deployment (e.g., heart disease, implanted pacemaker or defibrillator, etc.) (British Columbia, 2009: 21).*

Vic has drawn directly on the Canadian report's categorisation in defining high risk situations for its officers. It adds several other categories that reflect a good understanding of the emerging knowledge around safe CEW use (juveniles and children, persons of low body weight, persons under the influence of drugs and persons with pre-existing heart conditions) and has also made medical attention a requirement for every deployment.

WA has also been influenced by Braidwood's recommendations; identifying a range of risk situations and requiring medical care for most vulnerable groups (excluding Indigenous people). They also add children to their list of vulnerable groups, but unlike Vic choose to name 'Excited Delirium' specifically as a risk requiring attendance of an ambulance. The Braidwood Commission found the term 'excited delirium' unhelpful and rejected both the notion that 'Excited Delirium' counted as a medical diagnosis and the notion that police officers ought to be placed in a position where they needed to make a medical diagnosis in any case (British Columbia, 2009: 262-263). This is evidently an observation that senior police in WA have chosen to reject, for their own reasons, despite having accepted other aspects of the Commission's observations. This seems to hold true across Australian jurisdictions, where Braidwood is followed on some items, but not on others. Once again, the defining characteristic is the lack of uniformity in representing the imperative of medical assistance following CEW deployment.

REPORTING REQUIREMENTS

Reporting requirements should be considered a key aspect of CEW policy because of the range of modes of use that exist. As might be expected, all Australian states and territories have strict reporting requirements for CEW use, but as discussed earlier, definitions of use differ quite markedly. Every jurisdiction except Vic requires recording of all presentations. The Vic CCI examined for this research (12/10) require only deployments be reported, although it is understood that this has subsequently been updated to require the reporting of presentations at senior officer's discretion. WA requires the widest range of reporting (where arcing and laser dotting must be reported). NSW and NT also require officers to record laser dotting. In confining reporting requirements to deployments only, Vic is well out of step with the rest of the country.

Any jurisdiction that does not require reporting and recording of presentations or threats to use CEWs runs a risk of unregulated mission creep. Although the reporting of every mode of CEW use may represent a significant procedural frustration for police (in that they must fill out more paperwork) it is arguably one of the most important aspects of CEW regulation. From the point of view of those concerned about police over-reliance on use of force it is crucial that threats to deploy be recorded. Without such information it is not possible to construct any deep understanding of the impact of new weapons technologies on the practices and outcomes of policing in particular locations. Unless officers in all jurisdictions report the use of CEWs in all modes proper accountability cannot occur.

In addition, only WA, QLD and NSW state specific requirements for data downloading, specifying time periods allowed between deployment and downloading information from the Taser® inbuilt data chip. Only WA specifies that data chips should be routinely downloaded and checked against records (every three months). WA also expressly requires that downloaded data be retained (for a period of 4 years). Once again, WA is strong in the area of reporting requirements compared to other states. Victoria's 2010 policy however is by comparison quite inadequate.

Reporting culture in Vic. is evidently quite poor. In its parliamentary report on use of force by and against Victoria Police in 2009, the OPI was critical of record keeping generally in that state, saying:

There appears to be significant under-reporting in relation to use of force. The current central collection of information about use of force is under-utilised, unreliable, outmoded and antiquated. Although Victoria Police records substantial statistical data that is capable of contributing to the analysis of trends in the use of force against or by members, there is little evidence that Victoria Police is actively monitoring or strategically examining that data to inform police training and improve police practices (Office of Police Integrity, 2009: 58).

In relation to CEW use specifically, rates of use compared very favourably with other states. The OPI argued that it was 'clear the specialist training of these (SOG) police contributes to their prudent use of Tasers' (OPI, 2009: 34). However, the review expressed concern at the lack of formalised internal review or oversight of CEW use, 'given the controversy associated with these devices' (OPI, 2009: 33). It noted that 'neither the Specialist Support Department nor Corporate Management Risk Division has conducted function audits of Taser use' (OPI, 2009: 33). VicPol responded by implementing a panel to oversee each deployment during the trial. The panel incorporated senior police and a community representative, the Chief Executive Officer of the VFCLC.

Importantly, the OPI (2009) review also found that although Tasers® provide an accountability framework through the production of auditable data, specialist police within VicPol were not utilising these options. Printouts of data from the devices were not being attached to incident reports, although policy required this. The OPI review provided the pressure needed for VicPol to report improvements in procedures:

Files examined by the OPI Review Team did not contain these printouts, but Critical Incident Response Team managers have recently advised that printouts are now being dealt with as required by the Standard Operating Procedures. As the weapon has the capability to recall 2000 discharges, their previous non-compliance can be rectified. However, the OPI Review Team findings highlight the importance of regularly auditing processes and procedures (Office of Police Integrity, 2009: 32).

No mention is made in the OPI report of the issue of recording the unholstering or threat to use the weapon.

Related problems with downloading data were also mentioned in the 2009 NT CEW evaluation (which provided policy recommendations that were fed into the updated policy document). Here, comments are made about the potential problem of devices being mishandled (rendering them 'useless') and this is used to support a request for a download dedicated officer who could transverse the major towns in NT and would be 'trained to competently carry out the required downloads' (Northern Territory Police , 2009: 74). Recording deployments and the manner in which such reports are recorded present a clear area where policy refinement is urgently needed in Australia.

Turning to the issue of what requirements are stipulated in policy concerning oversight of CEW deployments, it is evident that each jurisdiction stipulates a different level of internal review, as shown in Table 6 (see Appendix Five: 215) . It is difficult to interpret the implications of these differences at this early stage of CEW use and without having full access to police records for the purpose of this research. Another notable difference exists in the structure of the forms used by police to report the details of CEW use. The nature and degree of the details provided by officers (and the accurate oversight of these details) is extremely important for the accurate analysis and comparison of the data. Although access was not gained to all use of force forms, those that were examined during this research reveal that very different levels of detail are required between the jurisdictions. Ideally, Australia should develop not only national guidelines for CEW use, but also uniform reporting requirements and potentially software that could be used to develop a nationally comparable database to allow researchers and police managers to access the information needed to properly identify and understand usage trends and patterns that will emerge in the future.

EVIDENCE COLLECTION

Yet another area in which a troubling disparity of standards exists is in the area of evidence collection. During the Taser International seminar attended by the author during the course of this research, evidence collection processes were discussed in detail. The Taser International representative was at pains to explain to an audience made up mostly of police trainers from across the country that spent CEW cartridges can provide a wealth of forensic evidence to assist in incident investigations – but only when handled correctly. In particular, the need for loosely winding the CEW cables was emphasised. Clear advice about such matters is provided only in WA, QLD and NT. Because advice is not offered in each jurisdiction, this is another area that national guidelines should address in the interests of accountable use of CEWs in Australia. Another disparity is present concerning the amount of time that evidence such as spent cartridges should be retained.

ADDRESSING INCONSISTENCIES

The move from specialist only to general issue use of CEWs has occurred in the context of local and international controversy about the safety of these weapons, and resulted in significant policy overhaul in Australian jurisdictions. Changes have been influenced by local and international events, including deaths and complaints about police behaviour. The trend had been towards making policy more restrictive. Thresholds for CEW use have been raised to reflect the purpose of preventing serious imminent injury rather than just 'injury' or 'assault'. Still, Australian policies lack uniformity, each having been developed separately and influenced by different factors. It would be more desirable to have a set of national guidelines for CEW use and it is hoped that steps will be taken towards developing these into the future. Even in the knowledge that police are unlikely to adhere to them strictly, the forging of national guidelines would compel Australian police to engage in conversations about CEW standards, share knowledge and potentially raise standards of use and accountability in some states. More importantly it would assist in regulation of CEW use, providing complainants with clear and accessible knowledge about the agreed limits set around CEW use. Such a move would serve to help bolster the notions of police accountability and legitimacy and would also reinforce Australia's flailing international reputation as an accountable democracy (Biles, 2010).

There is some evidence that pressure for the establishment of such guidelines began to mount in the days following the death of Thinh Ba Le in NSW on October 5th 2010, which is further discussed in the next chapter. Two days later *The Australian* reported that such guidelines were being 'drawn up' by police Commissioners (Bita, 2010). Reportedly, the Australian and New Zealand Policing Advisory Agency (ANZPAA) and police unions were drawing up drafts for national guidelines. On the following day, David Biles, a respected senior criminologist published an opinion piece, also in *The Australian*, presenting the case for national guidelines, an excerpt of which is quoted at this chapter's beginning. The following week an 'international forum' was reportedly held in QLD to 'share ideas and lessons on the use of Tasers' (Barry, 2010; Queensland Police Service, 2010). No outcomes of this forum were reported and no national guidelines have been produced at the time of writing. Indeed, a search of the ANZPAA website for the word 'Taser' yields no results.

ESTABLISHING NATIONAL GUIDELINES: TOWARDS ACCOUNTABILITY

The use of Tasers in Britain is governed by centralised guidelines produced by ACPO which, as briefly discussed in Chapter Four, leave significant room for officer discretion and are based on a situational use of force (Buttle, 2007). Similar 'best practice' or 'model' guidelines have been produced by the Police Executive Research Forum (PERF) and the International Association of Chiefs of Police (IACP) in the USA. The PERF indicates that CEWs (termed CEDs) are an intermediate weapon for resisting, actively aggressive or self-harming people. Providing equally broad, discretionary based advice, the IACP says the weapons are for 'to subdue violent or potentially violent individuals' (International Association of Chiefs of Police, 2005). The Canadian Association of Police Boards (CAPB), The Association of Chiefs of Police (CACP) and the Canadian Police Association (CPA), peak

policing bodies in Canada have also put forward policy positions or commentary on doing so²². Close analysis of these documents has not been included in this research, as none have had a demonstrable impact on Australian policy changes. The Braidwood Commission's recommendations, now utilised across Canada also serve well as formal national guidelines. These have been considered more closely in this work since there is a clear link between these and the development of state based policies considered here. Still, Australia is lagging well behind other democracies in terms of our recognition of the importance of uniform guidance for police using CEWs. Given that we have been using the weapons for over a decade, and they have been used as general issue weapons in some states for over four years, the issue of model policy deserves attention. This should come from incumbent oversight bodies, peak policing bodies and more funded academic research. Although little well-informed, public debate about this issue has yet occurred in Australia, suggestions about what national guidelines might include can be drawn out from the findings of this thesis.

PRE-DEPLOYMENT GUIDELINES

Perhaps one of the most important considerations pre-deployment is the method and mode of the delivery of training to police using CEWs. It is clear that the advice of weapons manufacturers about how best to utilise their weapon must play some part in the development of training modules, however, it is inappropriate for manufacturers to dominate the training regime. There should therefore be independent delivery and oversight of training in order to ensure that officers develop an unbiased perspective on the utility of CEWs, as well as safety margins for use. There is no reason why instructors must be certified by manufacturers, only that they be experienced in handling the weapons and familiar with international experiences and protocols. Training should be regularly updated, and recertification should be annual, at a minimum.

Guidelines should require that CEWs sit on a hierarchy of force options that provide clear directives on what types of behaviour warrant what types of weapons. In other words, thresholds for use should become uniform in Australia. At present there is no uniformity around this key issue, and a national public debate should decide once and for all whether

²² The three bodies all released documents on the same day, 24th Feb, 2009. This was around 16 months after the death of Robert Dziekanski at Vancouver Airport but before the Braidwood Commission's report was handed down in June 2009. The CACP and the CPA jointly issued their position document, but the CAPB released a separate document, which declined to endorse some of the policy positions. In particular it was reluctant to endorse the position that CEWs were 'intermediate weapons', saying further discussion and 'national consensus' was required first.

CEWs are an 'intermediate' or 'critical' level weapon. As has been demonstrated, most states now stipulate that CEWs be used only to prevent *serious* injury. This still leaves a significant degree of officer discretion in predicting what level of injury may result from a subject's actions, but would still go some of the way towards preventing use in order to obtain compliance from an unarmed but resisting party.

Related to this point is the manner in which each state and territory defines 'use' of a CEW. In order to ensure that sufficient data is available to outside parties seeking to examine the methods of use, it is essential that all jurisdictions record all possible usage modes accurately and to achieve this, 'use' must be defined as broadly as possible. The Pilot policy used by VicPol (and released under FOI for analysis in this research) did not require the recording of presentations initially, nor the use of 'laser dotting'. This omission allowed for coercive use of CEWs to not be recorded. The definition of use has since been amended to include drawing of a CEW, and this must be recorded (pers. comm., 2012). The public should be fully informed about the requirement of police to record such information, and be aware of the thresholds for use. They should also be informed of the importance of their role in holding police to account by making complaints about police who use the CEW inappropriately. Police oversight bodies in each state could play a role in educating the community about CEWs.

Also notable is issue of the carriage of CEWs by officers carrying out one person (or 'one up') patrols. The analysis in Chapter Five shows that Victoria is the only state that explicitly rejects such carriage, reflecting a clear appreciation of the limitations of CEWs during armed conflict. NSW policy carries a provision that only senior officers may carry a CEW when they go 'one up', but prohibit such carriage otherwise and NT warns against it. This policy item is significant for a number of reasons. It potentially enhances officer safety by ensuring that armed back-up is always available when CEWs are deployed. It also potentially limits the opportunities for 'mission creep', which would arguably be greater if officers were to be allowed to deploy CEWs when alone and virtually beyond scrutiny. The directive that officers should not carry CEWs when patrolling alone should be included in any future guidelines.

DEPLOYMENT GUIDELINES

National guidelines should clearly articulate which population groups are vulnerable to harmful outcomes from CEW use. The guidelines should actively limit use against vulnerable groups. What these limitations should look like (a prohibition, a limit on number of deployments, increased oversight) should become consistent. For instance, in the Australian context, police in every jurisdiction should follow the lead of the NT and clearly identify Aboriginal people as a vulnerable group. Guidelines should also clearly state that CEWs have been linked to deaths, and that some circumstances amplify this risk. Police should be fully informed about the dangers of use against mentally ill or drug or alcohol affected people. At present, statistics show elevated usage levels against these groups,

which seems to contradict the broader evidence base about the most dangerous circumstances for use (see Chappell, 2010). The examples discussed in Chapter Six will further demonstrate this.

Guidelines should prohibit multiple and prolonged deployments and limit the use of drive stun mode to the completion of the electrical circuit only. The coercive capacities of drive stun mode and the severe pain that it causes fit within the definition of torture, as the UN has clearly identified (United Nations Committee Against Torture, 2008). Uniform targeting advice and training should be provided to police, reflecting the evidence that chest deployments are dangerous. This would allow police to make informed decisions about whether CEW use was appropriate in the circumstances faced, since they are trained to fire weapons (in general) at the largest body mass, and will need to be prepared to resist their muscle memory if they are to avoid instinctively firing into the chest.

The guidelines should also prohibit the use of CEWs in crowd control situations. The injuries sustained by Constable Butcher during the incident involving the McLeod family show the limitations of CEW use in a group (Cox, 2009, 2011). Officers leave themselves vulnerable to attack from outraged parties who may see this relatives or friends subjected to CEW. This is an unfortunate reality of human instincts and police should not expect that CEW use will pacify an angry mob.

Finally, guidelines should provide clear warnings about the propensity of CEWs to be ineffective, and warnings should be provided about use against people armed with any type of weapon. Following the lead of New Zealand Police, the guidelines should also warn police about the importance of being covered by a firearm when choosing to use a CEW in such circumstances.

POST-DEPLOYMENT GUIDELINES

Guidelines should require mandatory medical attention for anyone subjected to a CEW. Medical assessments about the effects of a CEW use should not be left to the judgement of individual police officers who lack the training required to ensure that no ill effects have resulted from a deployment. Enshrining this practice would help produce more accurate knowledge about the frequency of the weapon's use as researchers could potentially access ambulance or medical records when undertaking research into usage rates. It would also ensure that anyone who is injured by a CEW receives adequate care, both directly following an incident and also in the weeks following. This may help ameliorate any psychological trauma experienced as a result of the event.

In relation to evidence collection, all police should be provided with accurate, clear and consistent advice about the collection, retention and disposal of used CEW cartridges. This is essential for occupational health and safety and also for accountability. Furthermore it is essential to ensure that accurate and detailed records of CEW uses are kept. Ideally, a national database could be established in order to ensure that comparable data could be

produced. This would optimise police transparency and accountability and would facilitate opportunities for effective oversight. It can be predicted that ensuring compliance with such a guideline would be a significant challenge. Core cultural traits of operational policing suggest that there is little sense in being confident that every CEW presentation will be accurately recorded. Perhaps the best way to keep a check on the demonstrated tendency of CEWs to creep away from their designated uses is to ensure that oversight agencies retain a dedicated, close watch over recorded CEW uses (along with complaints made by members of the public). Requiring a report to the relevant state body every time a CEW use is reported could yield significant benefits. The knowledge that all CEW related paperwork will be scrutinised by an oversight body will almost certainly assist in limiting the occurrence of mission creep in Australia.

CONCLUSION

This chapter, in combination with Chapters Three and Four, demonstrates the manner in which CEWs challenge traditional perceptions of minimum force. Not only do they defy the concept of a clearly defined force continuum, but it is clear from the examination of policy presented here that policies used to restrain their use fail to bear out claims made about their utility in the public discussion (as discussed in Chapter Three). These policies show that the main purpose of CEWs is to provide an alternative to intermediate levels of force in order to prevent injuries to police and suspects. They are not intended solely as a replacement for lethal force, although occasionally they might serve this purpose. This runs contrary to the rhetoric pervading the public debate, as demonstrated throughout this discussion.

The chapter also demonstrates the significant variance across the policies guiding CEW use by Australian police. It has argued that these differences are closely linked to the gradual move away from the use of a precise linear continuum to guide police in their use of force towards circular situational models which place a great deal of onus on individual police in deciding when it is appropriate to use a CEW. Given this reality, policy should provide officers with as much information about the weapons they are using as possible. Overall, there is evidence to show that Australian jurisdictions have attempted to provide better information to operational police as policy makers accumulated wisdom in each state. Still, according to this analysis, no Australian jurisdiction has yet produced a comprehensive CEW policy and it remains the case that improvements could be made. Some suggestions for model national guidelines drawn from the policy analysis concluded the chapter.

The final chapter presents a descriptive analysis of prominent CEW related events in Australia. The Australian experience provides a unique opportunity to test if patterns identified internationally are endemic. The relatively short span of time since their introduction, seven years, along with the highly centralised nature of Australian policing structures (meaning we have few policing jurisdictions compared to the USA) allows for a phronetic examination of national events. This process can reveal trends and patterns

emerging (or replicating) in the social sphere. The incidents described in the next chapter, which include controversial CEW deployments (some proximate to deaths in custody), official evaluations and reviews as well as incidents that have resulted in legal action, provide a set of details through which to examine the key questions that this research seeks to answer. These relate specifically to the use of CEWs on the ground and reflect the capacity of existing policy to prevented (or limit) poor outcomes.

CHAPTER SIX: LIGHTNING STRIKES: 7,000 TASERS²³

I am appalled at what we have seen happen since the disgraceful outcome last week of the attack on Matthew Butcher. I read with great disgust about the 20 youths who attacked a police car and taunted the police officers by saying, "Draw your Tasers and give us an excuse." That is what they were saying to our police officers (Robert Johnson, Minister for Police, Western Australia, 2009).

'When tasers came out, people were scared. No talk about what taser is for or what it does. Police only explained afterwards. Tasers was used inside the compound with a locked gate. We could see him using it' (Aboriginal community member, Northern Territory quoted in Pilkington, 2009).

Analysis of government and independent reports along with available use of force data reveal a significant number of controversial incidents have coloured the use of CEWs in Australia since their introduction. It is possible to identify only a small number of these incidents that received significant attention from the media. Predictably, these have involved deaths and serious injuries, although not all Australian CEW proximate deaths were widely reported. In the absence of death or injury, it is usually the existence of video footage (usually CCTV) that has helped to draw attention to an incident. The media has played a prominent role in the shaping of public perceptions of CEW use by Australian police.

This chapter will examine a selection of these incidents in seeking to show that CEWs are having a negative effect on the principle of minimum force in Australia. It will also collate the publicly available information about CEW usage rates and patterns more generally. It aims to build several related arguments: that Australian CEW policy not only reflects inadequate understandings about the possible effects of CEWs but that this has led to a failure to instruct police adequately about their use, with fatal results. Further, the chapter argues that mission creep is certainly occurring in Australia in relation to CEW use. Finally, the analysis shows mission creep and deaths are prominent in those states that were first to make CEWs general issue.

²³ The approximate number of CEW units purchased by Australian police before October 2010 (Bita, 2010).

To begin it must be said that there have undeniably been examples of CEW use that faithfully reflect the stated purpose of the weapon. It is true that some lives have probably been saved, although as already mentioned, arriving at a figure of exactly how many is impossible, despite Taser International recently including a ‘lives saved’ counter on their website (www.taser.com). At the time of writing, it measured over 80,000. In the course of this research cases have been encountered where it could be concluded that a firearm would have been a reasonable option for police had a CEW not been present. But the evidence suggests such cases are uncommon and the majority of people against whom CEWs are used are unarmed. This ratio is repeated across jurisdictions, nationally and internationally. The following presents a detailed discussion of how CEWs are being used, as well as how they are being misused and sometimes abused by police in the Australian context.

Official reviews also represent a fruitful site for analysis in the context of phronetic research. As Rolston and Scraton have observed that official inquiries represent ‘a terrain on which the “battle for truth” is contested’ (Rolston and Scraton, 2005: 550). For critical observers, public inquiry has long played a significant role in normalising and legitimising excesses of state power that threaten public confidence in state institutions such as police (Burton and Carlen, 1979; Scraton, 2004; Rolston and Scraton, 2005). It is therefore unsurprising that ten of the eleven separate inquiries that have taken place in Australia between June 2007 and April 2011 have repeated and reinforced the notion that CEWs represent nothing more than an extra, potentially lifesaving option for police involved in critical incidents. The exception to this is the VFCLC report, which is the only one authored by a Non-Government Organisation. These Australian reviews will be discussed in more detail in this chapter.

Jurisdiction	Author	Title	Type	Date
AFP	Deputy Chief Police Officer (Response)	Report on the Use within ACT Policing of the Taser X26	Review of Specialist use	June 2007
NSW	NSW Ombudsman	The Use of Taser weapons by New South Wales Police Force	Review of 5 years of Specialist use	Nov 2008
QLD	QPS/CMC	Review of the Queensland Police Service Taser Trial	Review of Limited General Use	July 2 2009
	QPS/CMC	Review of Taser Policy, Training and Monitoring and Review Practices		July 2009

Jurisdiction	Author	Title	Type	Date
	CMC	Evaluating Taser Reforms: A review of Queensland Police Service policy and practice	Policy review	April 2011
WA	WAPol	Post-Implementation Review of Taser	Review of general issue use	May 2010
	CCC	The Use of Taser® Weapons by Western Australia Police	Review of general use/ response to complaints	October 4 2010
Vic	OPI	Review of the Use of Force by and against Victorian police	Review of specialist use of Taser	July 2009
	Federation of Community Legal Centres	Taser Trap: is Victoria falling for it?	Independent review of specialist use	September 2010
	VicPol	Conducted Energy Device Pilot Project: Interim Evaluation Report	Interim review of limited general issue trial	February 2011
NT	NTPol	Review of TASER within the Northern Territory Police Force	Review of 12 months of use as general issue	June 2009

Table 3: Australian Reports and Reviews 2007-2011

TOM SWIFT'S MISADVENTURES IN AUSTRALIA

Chapter Three outlined the slow creep of CEWs into Australian policing, driven by Coroner's recommendations and a marketing campaign that used well networked Australian former police to spruik the wares of one particular manufacturer. It also demonstrated the pattern that once WA adopted the weapons, first for specialist police and then as general issue, other policing jurisdictions followed suit. The chapter sought to demonstrate the various technofallacies that have also driven the adoption of CEWs, meaning police have been almost compelled to embrace the new technology in order to appear professional – even though it was difficult technology to understand and also posed real problems in terms of

maintaining traditional models of force continua. There is no doubt that being well-equipped is deeply entwined with 'professionalism' in policing (Ericson and Shearing, 1986). This expectation is so strong that it has eclipsed the careful consideration a range of other consequences that have flowed from the use of CEWs.

In Australia, it did not take long for these unintended consequences to begin, although they would receive scant public attention until sometime later. The first death associated with CEW use in Australia was in May 2002, when 56 year old Gary Pearce died two weeks after a CEW deployment (New South Wales Ombudsman, 2008). No link was officially made between the deployment and this man's death at the time, and police claimed to be unaware of it until the Ombudsman's report released in November 2008 (AAP, 2008b). The link was always tenuous, since the death occurred so long after the CEW had been deployed and there is much conjecture over whether it is possible to draw a causal link (New South Wales Ombudsman, 2008).

In the meantime, heavy marketing continued in Australia and CEWs were adopted into specialist policing at a rapid rate during 2002/2003. In 2004, Michael Eddy died while being arrested by Queensland police. Eddy was sprayed repeatedly with OC spray and died at the scene. Eddy was not subjected to a CEW, they were not available at the time. His death is significant to this discussion because it resulted in the first appearance of the term 'Excited Delirium' in an Australian Coronial inquest. It provides the first evidence of the emigration of the term from the US to Australia. In 2007, when the finding was eventually made available, the Coroner rejected the diagnosis as being responsible for the death, but still found that Eddy had died 'from restraint asphyxia compounded by the effects of amphetamine use and extreme exertion' (Office of the State Coroner, 2007: 25). The OC spray was not mentioned as a contributing factor, although the finding states that:

During the course of the investigation the O.C spray can was examined and found to be empty. Inspector Turner gave evidence that a can would normally contain sufficient gas for six to eight applications and so it seems that considerably more spray was used on this occasion than is usual (Office of the State Coroner, 2007: 13).

The Coroner returned a similar finding in the CEW proximate death of Mark Conway in WA in April 2010. Amphetamines were also implicated in this death that occurred in August 2007. The finding was similar to the Eddy case in that it was extremely delayed, and also in that it failed to engage at any length with the possibility that sublethal weapons may contribute to lethal outcomes when used in particular circumstances.

THE DEATH OF MARK CONWAY

Mark Conway, an Aboriginal man, died after swallowing a bag of amphetamines *and* being subjected to a CEW three times, in drive stun mode for a total of 19 seconds. This occurred during an attempt by police to arrest and handcuff him on a busy Fremantle road. His death occurred in the back of a police van shortly after the event, allegedly whilst on the way to

the police station. The Coroner cleared police of any wrongdoing, and instead attributed the cause of death misadventure (specifically acute methyl amphetamine toxicity) (Jones, 2010). No connection is made between this death and the acute vulnerabilities clearly demonstrated by Conway at the time of his death. Police observed Conway swallowing a small plastic bag during his arrest. One tried to retrieve it, thinking it was food, but Conway refused to open his mouth. The bag was subsequently revealed to contain methyl amphetamine (WA Coroner, 2010).

It was reported that witnesses called police to the scene after observing Conway's disorderly and dangerous behaviour by a roadside. The Taser was used in direct contact with Conway as he lay on his stomach on a median strip, with one hand in cuffs. Police said 'He was trying to buck us off, he wouldn't release his right hand, he was trying to escape, he was trying to push us off and get away,' (Guest, 2010). While the question of why two officers had to resort to three drive-stun Taser discharges in order to cuff one hand was not addressed, the Coroner found that while the officers involved were 'a little hazy about the powers under which they were acting', in all the circumstances 'the use of the Taser in drive stun mode was reasonable in bringing the deceased under control enough to remove him from the roadway' (WA Coroner, 2010: 47, 52).

Several policy deficiencies can be noted in this case. WA policy at that time provided no warnings against CEW use on either mentally ill or drug affected people (although the updated 2010 policy does warn against the former). There were no warnings against drive stun mode or prolonged deployments either. Policy has since changed to allow drive stun mode only to complete an NMI circuit. There are still prohibitions against prolonged or multiple deployment in WA policy, except to say they will be subjected to 'greater scrutiny' than single deployments. This is despite significant international consensus on the danger of repeated CEW deployment (see British Columbia, 2009; Holder, Robinson and Laub, 2011).

As discussed in the Chapter Six, Western Australian policy now requires medical assistance in risk situations (where one of those identified is 'Excited Delirium'). This was also the case at the time of Conway's death although the updated policy provides more specific detail to help officers decide (specifically by including pregnancy and mental health issues as situations requiring medical attention). Had the officers in this case sought immediate medical care for Conway, whilst they may not have saved his life they would have provided a much more accountable representation of police conduct than is evident in this case. 'Excited Delirium' was not raised as a potential cause of death in this case, as may have been the case had it occurred in the USA. This is perhaps because WA policy already identified the condition as a 'medical emergency' and police clearly did not respond to Mark Conway as if he was a high-alert medical risk. It might also be related to the fact that Conway's amphetamine ingestion was enough to be found an obvious cause of death. Regardless, the Coroner in this case did not engage with the issue of the dangers associated with using CEWs against drug affected people. It is probably the case that little was known about this

risk in Australia at the time of the death (mid 2007). This is despite the fact that Amnesty International had highlighted the issue and warnings to this effect were later included in NT's 2009 policy (Amnesty International, 2007, 2008).

To all intents and purposes, nothing of value about CEW use was learned from Mark Conway's death. Although the circumstances would suggest, given what we currently know about CEW use, officers ought to have taken different actions (specifically calling for urgent medical attention) the death is not associated with CEWs publicly. Prior to the Coronial finding, which disappeared from the print media within two days, a single descriptive article had reported Conway's death (Eliot, 2007). Like the death of Gary Pearce a few years before, this death and its links to CEW use escaped public attention.

MISSION CREEP IN WA

Nonetheless, unfettered public support for CEWs began to wither in WA when usage figures emerged in November 2008. At this time Shadow Police Minister, Margaret Quirk publicly decried the frequency with which the weapons were used. She revealed that Taser use had risen from 178 times during 2006 to 804 times during 2007. Certainly, there were many more Tasers available in 2007 than there had been in 2006. Police Commissioner O'Callaghan defence of CEWs in the media shows a very liberal attitude towards their use and arguably provides an insight into police views about their utility beyond critical incidents involving life or death. He argued the following:

In 2008 we have had 852 withdrawals, that is not necessarily about the usage of them but the withdrawals of them. Of that 852 we have had only had 14 complaints. We consider them safe ... and I can say since Tasers have been introduced in WA and rolled out to all police officers no one has been shot with a firearm by a police officer, that is a good thing.

If someone deploys a baton it is likely kneecaps and elbows are going to be broken and obviously the recovery time for that is long. If someone deploys AC (pepper) spray the recovery time is up to an hour. The recovery is for the use of a Taser is instant as soon as the Taser is withdrawn.

In the past police officers had to engage in hand-to-hand combat to resolve situations. I don't want police officers to do that, they don't need to place themselves in danger. If someone attacks the police officer, it is likely the police officer will withdraw a Taser and I am not offering any apologies for that.

The officers like them for resolving violent and dangerous situations, and they are very effective at doing that (Clarke and Thomson, 2008).

Perhaps no-one had been shot, but by the time this statement was made to the media, Kevin Spratt (also an Aboriginal man) had been subjected to 13 CEW uses in the East Perth Watchhouse after being arrested by police (11 times in drive stun mode and twice in probe

mode). He was also subjected to a CEW another 11 times during a cell extraction the following week (Corruption and Crime Commission, 2010). Altogether, Spratt was 'tasered' 41 times in a single week according to one report (Perpitch, 2011). The event was not made public until 2010, when the CCC review of CEW use in WA was released. However, it is now known that Commissioner O'Callaghan was privy to this information at the time the statement quoted above was made. In testimony to a further CCC investigation into the adequacy of the WAPol response to the incident, conducted in April 2011, Commissioner O'Callaghan stated that he became aware of the event 'within a week or so of the event occurring' although he had allegedly not viewed the footage 'in its entirety' (Corruption and Crime Commission, 2011: 652 and 655).

The August 2008 incident, the most controversial in WA in terms of the media coverage it received, was brought to the attention of WA's Corruption and Crime Commission following a complaint made by a district officer shortly after the event (Corruption and Crime Commission, 2011: 653). It was not brought to public attention until the CCC report was released in 2010. This report included a DVD of CCTV footage of the event and this was widely run across Australian television networks, and also internationally. The incident calls into question any notion that CEWs are restricted to incidents where they might prevent lethal force – Kevin Spratt was not only unarmed but already in custody when the weapons were used on him 13 times (CCC, 2010). The footage captured provides compelling evidence of excessive force, causing widespread debate and condemnation, as has been observed before when such incidents are caught on film and shown on television (see Skolnick and Fyfe's discussion of the Rodney King incident, 1993).

Soon after the release of the 2010 CCC report, WAPol announced they would conduct an inquiry into police conduct in this matter. As part of this, a media conference was held to introduce a 'timeline' of the events leading up to Spratt's arrest. This timeline, which outlined details about Spratt's previous interactions with police, was released to the public (Knowles, 2010). This caused uproar and the document was later labelled a 'litany of lies' compiled to tarnish Spratt's reputation (Rimrod, 2011). It was then announced that the CCC would take over the investigation and hearings were held during April, 2011. In February, 2010 charges against Spratt of obstructing police were overturned on appeal in the Western Australian Supreme Court. Charges of assault and obstruction laid against people who have been subjected to CEWs have also been overturned in several other examples, discussed below.

Police involved in the Spratt incident were subjected to internal disciplinary processes. When the incident was made public in 2010, serious questions were raised about why criminal charges against police were not considered appropriate. A further review of the incident was conducted by the CCC, and from this it emerged that police believed that Spratt did not want charges laid against the officers involved because he could not remember the incident.

When questioned by the CCC about the Spratt matter, the Police Commissioner argued that the heavy use of CEW was in part related to officer's fears of contracting blood and saliva borne diseases (CCC 2011: 682). This may be one aspect of the CEW's utility that encourages 'mission creep', as police come to see the weapon as key to their occupational health and safety. At the time of writing, the outcome of this most recent inquiry into the Spratt incident has not been reported.

TASER IGNITIONS

The next events to unfold in WA both call into question the Commissioner's confidence in CEWs and demonstrate (by that time) the well-established hazards of using CEWs around flammable liquids or gases. This risk is identified almost universally in CEW policies nationally and internationally as a result of a number of cases where people or objects have ignited following CEW use in the USA (The Associated Press, 2007; Zachariah, 2009; British Columbia, 2009). The two events (both in WA) involved deployments of CEWs which each resulted in serious burns being suffered by the targets, one of whom was an Aboriginal man residing in the remote community of Warburton. When these incidents occurred, WA policy provided a clear 'reminder' to police 'not to deploy (a CEW) in the near vicinity of flammable liquids or fumes' (Western Australia Police , 2007: FR-1.6.3). These examples illustrate again the limitations of policy proscriptions around CEW use.

The Warburton incident occurred in July, 2009 when police attended a property to execute an arrest warrant on Ronald Mitchell. The man's sister reported that her brother was sniffing petrol in a house when police knocked on the door. Recently released from prison, Mitchell was reluctant to speak to the police, but after a series of verbal commands eventually went to the front porch - with a container of petrol and a lighter in his hands. Police reported that he then ran at them with the container, and refused to stop. Immediately upon the CEW deployment, the man's upper body burst into flames. He was reported as having burns to 20% of his body (Guest, 2009).

Again, Commissioner O'Callaghan immediately defended his officers, as is so often observed in controversial policing incidents (Ryan, 2000; Biles, 2010). Database searches undertaken for this thesis show that this incident prompted national media attention (ABC Lateline, 2009). In an interview he intimated that the cigarette lighter not the Taser® may have caused the man's skin to ignite, and argued that the man had a history of violence. He also argued that there were no specific prohibitions against using a Taser in the circumstances, although 'police are advised that they should, where possible, avoid using them in circumstances where there's flammable liquid' (Sapienza, 2009b). In fact, the policy at the time clearly stated:

Specific risks emerge from the use of Taser and operators are reminded...not to deploy in the near vicinity of flammable liquids or fumes (WA Use of Taser Policy, 1.6.4).

In this interview, Commissioner O'Callaghan invoked the standard arguments around CEWs being a better alternative than lethal force, saying that had the incident happened two years previously, the only option would have been to use a gun (Sapienza, 2009). Such reference to lethal force renders this a 'worst case', such as those that are frequently invoked in order to justify CEW use (Rappert, 2004). No review or disciplinary action in relation to this incident has been publicly reported.

A second CEW related ignition occurred in February, 2010 in Forrestfield, a suburb of WA's capital, Perth. In this case, the offender reportedly locked himself inside a house, threatening to burn it down (AAP, 2010). A petrol can was thrown at police, and the man was threatening to get matches when a CEW was deployed. He subsequently suffered burns to his arms and body and was taken to hospital. Police argued again that CEWs were likely to result in less harm to the man than firearms (AAP, 2010). This argument worked to deflect attention away from other strategies that might have been used in this incident, such as containment and negotiation and also from the clear policy breach that occurred. Again, no review or discipline was made public.

A number of other incidents suggest that the 2007 CEW in WA policy was not only sometimes ignored but was also deficient. In April 2009, a CEW was used against a 17 year old male who was behind the wheel of a moving vehicle in Geraldton, a regional city north of Perth (ABC, 2009). This caused the youth to crash into the side of a crowded nightclub, but no injuries were reported. Although arrest was effectively achieved, in this case police were lucky that they did not cause significant injuries to others in their efforts to prevent the youth from doing the same. Regulations provided no warnings about this risk at the time, but were included in the updated 2010 policy (see Table 5, Appendix Four: 211).

ASSAULTS AGAINST POLICE

Further incidents that occurred in WA illustrate the presence of mission creep. Each concerns charges laid against members of the public who have been subjected to CEW during the course of their interactions with police. In each case, charges have either been dropped or acquittals have resulted. The most prominent incident concerned a police officer who was partially paralysed after being 'king hit' by the son of a man the officer had just deployed a CEW in drive stun mode against. The resulting court case was labelled in WA media as 'the most recognised in the state's history' (Cox, 2011) and resulted in a record compensation payout for the officer involved.

The first incident occurred in February 2008, during the day outside The Old Bailey Tavern in Joondalup, outside Perth. Three police were in attendance at the incident where a CEW was used in an attempt to control 56 year old Robert McLeod, who suffered from a heart condition. The man's 29 year old son Barry, having observed the CEW being used on his father then targeted the officer who had used the CEW, Matthew Butcher, with what the media described as 'a flying headbutt' (Cox, 2009). Three members of the McLeod family (including brother Scott McLeod, 36) faced a suite of charges of in the District Court

including obstructing a public officer and assaulting a police officers (Sapienza, 2009a). The McLeod's argued that Barry's reaction was instinctive and a result of his knowledge that his father might be seriously harmed by the CEW because of his heart condition; he had not intended to seriously harm the officer, only to protect his father. Vision of the event was captured on a bystander's mobile phone and was made public during the McLeod's trial. As such, it is available to be viewed on the internet (The Age, 2009).

Robert and Barry McLeod were acquitted of all charges, although the older brother Scott was found guilty of making a threat to kill and fined \$4000 dollars (Egan, 2009). McLeod's acquittal caused uproar; as police threatened to resign, Kevin Rudd (then Prime Minister) made public statements to the media expressing his dismay (Ninemsn, 2009; Cox, 2009). Headlines such as 'Family 'disgusted' as police attackers acquitted' followed. The officer was later awarded 3.3 million dollars compensation (in January 2011). Throughout the debate, the appropriateness of using a CEW for crowd control is considered. This operational danger is acknowledged in QPol's policy (and also now in VicPol's), although policy in WA shows it was not identified as a risk at the time of the incident.

In the McLeod example, it can be argued that CEW use escalated a non-life threatening situation. The District Court jury was directed to acquit the men if they found that police had acted unlawfully in the circumstances. They did acquit despite the presence of graphic footage of the incident being present on the internet. The jury may also have taken into account that the elder McLeod collapsed with a heart attack a few minutes after the incident (Egan, 2009). CEW use was never linked to this non-fatal heart attack (since the barbs missed and did not make full contact)²⁴. Still, these issues were obscured in the media by a focus on the overtly aggressive nature of the attack on the officer and crucial aspects of the event's context were lost the media representation. This incident shows that considerations about CEW use are not all tied to what occurs after the deployment and that courts can bring the focus back to the tactical decisions made by police in deciding a case's outcome. This highlights the importance of questions around the practical use of CEWs such as existence of mission creep, accountability for use outside policy and also for critical analysis of policy itself.

Liam Bartlett, a prominent WA journalist on the *60 Minutes* television program, labelled the legal action 'publicly and personally offensive' in print media, squarely blaming punches thrown by Robert McLeod for the incident (Bartlett, 2011). He writes:

²⁴ It has recently been reported that Robert McLeod has launched a wrongful battery civil action against Matthew Butcher, WA Police and the State of Western Australia (Cox and Cordingly, 2012).

Robert, Barry and other son, Scott, won the lottery when a jury decided they were not guilty of assaulting police. It's still not clear what planet the jurors were living on when they agreed that a "flying head-butt" constituted self-defence but the only person crashing back to earth in the wash-up was Constable Butcher.

Remember Robert McLeod is a man who has no compunction about treating our institutions like dirt. Despite already having two heart attacks to his name, Robert McLeod was quite happy to throw a few punches and launch a few kicks against uniformed police. His initial eagerness to be involved should be matched by his preparedness to accept the consequences of his own actions (Bartlett, 2011).

This editorial dismisses outright the significance of context, and especially the presence of 'family ties' in the course of the incident. This, and broader issues related to the use of sublethal weapons (batons and CEW) during the McLeod incident deserve much fuller analysis than they have so far had. Until this is done police will fail to learn valuable lessons about safe contexts for CEW use. The McLeod family is still pursuing legal action at the time of writing, while the CCC conducts a review. Overall, this incident shows that CEW can undermine the principle of minimum force, with harmful outcomes. Clear warnings should be given to police about the possible adverse outcomes of using CEWs for crowd control.

A second WA incident noticed in the media again involved a family. Ryan Walker was subjected to a CEW in January 2010, in the presence of both his parents. CCTV footage contradicted the police version of events in this case, which also occurred outside a public venue, this time at night. Media reports suggest that Ryan was 'tasered' (and his mother's ankle broken by police who were removing her from the scene) after the family 'began questioning officers about their handling of a melee outside the club' (Robinson, 2010). Police alleged that Ryan punched an officer during a brawl involving a number of people outside the nightclub, but the camera's footage showed 'a massive discrepancy' between the version of events offered by police and what was captured on CCTV: there was no evidence that Ryan had thrown the alleged punch (Robinson, 2010). As a result, the court dropped charges laid against Ken and Raelene Walker, their son and a 23 year old friend. It awarded the Walker family close to \$15,000 court costs. Four officers were disciplined (Jones, 2010a).

In this example, media was much more sympathetic towards the family's view of events. Public reticence about the propriety of the circumstances was most evident when the WA Premier apologized to the Walker family saying, 'I apologise to the family concerned...They should not have been put through that ordeal which they have' (Robinson, 2010). Two further incidents, both in Kalgoorlie, have resulted in acquittals after CEWs were used against people subsequently charged with assaulting police. These cases also share the presence of family ties, both involving charges against two sets of brothers, the Boords and the Stevens.

The first incident involving Robert and Andrew Boord, occurred at the Kalgoorlie racecourse in September 2009. Reportedly Robert was subjected to a CEW twice after he disobeyed an officer in his effort to assist his brother, who was involved in an altercation inside the racecourse (Lampathakis, 2010). The Magistrate, Felicity Zempilas, referred this case to the professional standards section of WAPol and criticized police for using the CEW as a compliance tool. WAPol was forced to pay costs to the brothers of \$12,000 (Lampathakis, 2010).

Another incident occurred in January 2010 outside a Kalgoorlie nightclub. Though few precise details are available, media analysis shows that two brothers, Justin and Brett Stevens, were charged with assaulting and obstructing police. These charges were again heard by Magistrate Felicity Zempilas (ABC Goldfields, 2010). Justin was acquitted of both charges, but Brett was found guilty on the latter. The court found that an officer kicked Justin Stevens while arresting him and also deployed a CEW against both brothers, although the number of times is not reported. Notably, the evidence showed a discrepancy between police reports about how many times the weapon was deployed and the information obtained when the weapon's data chip was downloaded. The magistrate recommended that CEW reports be made more comprehensive and that re-calibration of internal clocks be carried out more frequently to improve the accuracy of the data (ABC Goldfields, 2010).

These examples all show the presence of mission creep in WA in relation to the rationales stated for the introduction of CEWs and in relation to policy; the use of firearms would be totally unjustified in each and CEWs did not replace them or save endangered lives. Arguably, to some degree, their use increased the harms rather than minimising them. Conclusions of the courts in each case reflect the concern that CEW use undermined the principle of minimum force in each example. The fact that each incident occurred in WA, the first state to embrace the CEW as a general issue weapon, can be read in two ways. Perhaps WA stands out simply because more incidents were reported or taken to court in that state than in others. Alternatively, the events reflect WAPol's ill-considered policy at the time that CEWs were made general issue weapons. Further, it suggests there may be something to the old adage 'to a man with a hammer everything looks like a nail' (see Chevigny, 1995). This argument, that police are always keen to make use of new weapons technologies once they have been issued, is supported by the Australian experience of CEWs; those states that rushed to deploy them as general issue have had more controversial deployments than others.

Evidence from Qld supports this position. A prominent example occurred when a CEW was used against a 16 year old girl on Brisbane's inner-city Southbank (McKenna, 2008). It happened on the evening of 11 April 2008 (the day that the CEW trial was extended to all operational officers in Dutton Park, Metropolitan South Region) and resulted in significant criticism of police tactics. Events unfolded when the girl refused to 'move on' from a garden where a second girl lay unconscious (Wray and Chudleigh, 2009). Reportedly, security

guards held the first girl down while a police officer used a CEW in drive stun mode on her thigh (McKenna, 2008b). She was charged with obstructing police but these charges were dismissed by a Magistrate (in November, 2008) who recommended disciplinary action against the officer involved (McKenna, 2008b).

This incident was also captured on CCTV, but the QPS refused to release the footage and attempted to oppose media coverage of the incident because it was held in the Children's Court (McKenna, 2008b). In July 2009, following a further investigation of the case, the chairman of the CMC made a statement in a media release that the incident represented excessive force and use outside policy demonstrating 'very poor policing' (media release, CMC, 2009). The CMC recommended discipline for the officer concerned. The officer claimed that he thought the girl was aged between 16 and 20 and did not know she was a juvenile (McKenna, 2008b). There are differences between QPol policy used at that time and the updated 2009 policy in that while warnings were supplied against use of CEWS on 'juveniles' in 2008, the 2009 policy uses the phrase 'children or persons of particularly small body mass' (both supplying the caveat 'except in extreme circumstances where there is no other reasonable option to avoid the risk of injury'). In the 2009 policy, this is changed to 'risk of serious injury'. It seems that QPol has thereby retained the right to use CEW against juveniles, but not especially small ones unless the risk is significant. CEW use against the girl at Southbank would probably still fall outside the updated policy, although it would be open for police to argue that she was not of significantly small body mass to preclude the use of the CEW.

Clearly, there are significant differences in the dynamics of each of these incidents and in the issues that arise from them. However, all provide examples of CEW use in circumstances where firearms would never be considered and indicate a reluctance, on the part of courts and oversight bodies, to accept such use as reasonable. Arguably, these unfavourable legal outcomes helped set in a motion the move towards developing more restrictive policies in Australian jurisdictions, especially WA and QLD, as discussed in the previous chapter.

Another key theme that emerges from this examination of CEW introduction in Australia concerns use during police interactions with Indigenous people. This arises primarily because of the disproportionate number of interactions between these two groups, and the logical conclusion that this will result in disproportionate CEW use by police. As previously discussed, this is important because Indigenous people are likely to be at greater danger of harmful effects after CEW use.

TARGETING ABORIGINAL AUSTRALIANS

Australian research shows clearly that the overrepresentation of Aboriginal people in our criminal justice system is a direct reflection of their high levels of interaction with police (Bird, 1992; Cunneen 1994, 2001, 2009). This makes the broad dissemination of CEWs especially troubling not only because of the disproportionate impact the weapons have had

on Indigenous Australians as individuals but also in terms of the efforts that have been made to heal historically problematic relations between police and Aboriginal people (Cunneen, 2001). Given what we know about the damaging effects of saturation style policing in Indigenous communities, it is concerning to consider the flow-on impacts of electrical weapons. Of course, these are not yet known given that we are only a single decade into this particular experiment in social control. Nonetheless, what we do know at this early stage is both disconcerting and predictable.

The overrepresentation of Aboriginal people in CEW use is evident in most states where significant reviews have been conducted. For example, it is evident in WA's CEW statistics as reported by WAPol in May 2010 and also in the October 2010 CCC report. Both show that around 30% of uses in WA involve Indigenous people. The WAPol (2010) report highlights the fact that CEWs are used against non-indigenous males at a ratio of 3:1 compared to indigenous males. It does not, however, include any contextualizing demographic data or per capita ratios (Western Australia Police, 2010: 126). The CCC review, released almost six months later, shows that not only are CEWs used disproportionately against Indigenous people in WA, but use had grown from 16% of all uses in 2007 to 30% in 2010 (CCC, 2010: xiv). While the CCC identified use against 'particular groups' as a concern, it stopped short of recommending specific warnings be added to policy and so far this has not been done in WA. In QLD, Indigenous overrepresentation was also evident in the 2008 QPS Trial evaluation (8% of recorded uses were against Aboriginal people, who make up 3-4 % of people who come into contact with police). It was noted that the rate of deployments was no higher than the rate of use against Caucasians (QPS, 2008: 19). By 2011, the CMC was able to report that almost 22% of CEW uses were targeted at people identified by police as Aboriginal or Torres Strait Islander (based on racial appearance) (CMC, 2011: 72). Although this method of identification is flawed, it reflects that Queenslanders who appear Indigenous are over seven times more likely than Caucasian Queenslanders to be subjected to a CEW incident (CMC, 2011: 72). In addition, the Indigenous groups were also more likely to be subjected to the threat of a CEW rather than a deployment compared to their Caucasian counterparts but also grossly overrepresented in incidents involving deployments (CMC: 2011: 72-73).

In response to this data the CMC recommended:

That:

a. the QPS Taser policy (Section 14.23.3 of the OPM, under 'Deployment of a Taser') be amended to include the following statement after '(v) a combination of these factors existed': 'Officers should be aware that Indigenous people are more likely to suffer from underlying health problems such as heart disease, lung disease and other illnesses that may increase their risk of experiencing adverse health effects when a Taser is deployed against them.'

b. the QPS Taser training be amended to address the above policy change (CMC, 2011: Rec.5).

There is no evidence that these recommendations have been implemented as yet.

Specific concerns that the use and misuse of CEWs may negatively affect Indigenous Australians have been raised in the public arena by medical bodies, criminologists and community lawyers since 2008 (AAP, 2008; Cooper, 2008; Ryan, 2008; Pilkington, 2009; Fenech, 2010). Regrettably, these concerns were not taken into account by most policy makers in Australia, with the exception of NT as demonstrated in the previous chapter. As a result, a disproportionate number of the most serious CEW abuses on the public record in Australia involve Aboriginal people. One particularly disturbing incident involved the use of a CEW against a teenage Aboriginal woman in late term pregnancy. This incident was raised in the media by the chief executive officer of the Aboriginal Legal Service (ALS) in WA, who said that:

She was kicking up at her boyfriend being arrested and mishandled by police so they ended up trying to calm her down...It's escalated into some dispute and they've Tasered her. She had lots of bruises on her from where she was handcuffed and burn marks from the Taser (Fenech, 2010).

Beyond these comments, the incident received little media attention. It is not known precisely when this incident occurred, although the most recent WA policy identifies use against pregnant women as a risk situation which will therefore be subjected to extra scrutiny: it is therefore *not* strictly prohibited. Fortunately no permanent harm was reported in this case, however the ethics and necessity of using a CEW to gain control of a woman in the late stages of pregnancy remain highly questionable. This incident illustrates a differently nuanced 'worst case' than that which Rappert (2004) had in mind when he used this phrase in relation to CEWs.

In the media, the CEO of the WA ALS went on to identify a core problem that impacts heavily on the proper regulation of CEW use, especially against Indigenous Australians living in remote communities. Responding to the release of the CCC report, he spoke about the barriers encountered by Aboriginal people seeking to report abuses at the hands of police:

But to have the science and statistics around it is very welcome for us because it's difficult when we, as an Aboriginal group, say 'this is wrong' most people don't want to listen...Many of our people are terrified and frightened to take civil charges against police because they feel they will be mistreated by police and possibly have Tasers used on them (Fenech, 2010).

These issues link directly to other concerns about under-reporting incidents (in both a quantitative and a qualitative sense). Whether or not police accurately capture the nature of events in the use of force forms that they complete following a CEW deployment is a crucial

issue. Police may downplay some events in their reports, or fail to report a threat to use the weapon, in addition many people would predictably feel afraid to report an officer who has 'tasered' them. Given the experiences of the McLeod and Walker families, who both experienced significant financial difficulties before being compensated by the courts, many people would not have the resources nor perhaps the inclination to question the behaviour of police through official mechanisms. Such concerns are not limited to Indigenous people, but also relevant to homeless people, young people, the mentally ill and a whole range of other vulnerable people. This means that while figures do show that disproportionate use is present, it may be the case they only partially capture the extent of the problem. Without a full appreciation of this aspect of CEWs, there can be little prospect of proper regulation of CEW use by police in Australia.

ACCIDENTS AND CALAMITIES

Further incidents in Australia are worthy of note because they highlight some less well recognised CEW hazards. Each has counterparts from overseas (often US jurisdictions) and so are not just 'one off' accidents. In February 2009 an officer suffered minor burns after accidentally deploying a CEW to his own arm whilst trying to break up a brawl in Martin Place in the Sydney CBD (AAP, 2009, 2009b). In March 2010, a more serious incident in WA hospitalised a junior officer when a senior officer 'failed to warn his colleague he was about to fire his Taser' whilst arresting a man in Perth (Phillips, 2010). Police explained to the media that the junior officer suffered a broken finger when the CEW barb punctured the bone, saying:

At the time of deploying the Taser the struggle between other police and the person of interest was occurring...One of the officers struggling with the POI moved his hand into the line of fire and as a result was struck by both probes in the hand, receiving an electrical shock (Phillips, 2010).

These incidents demonstrate the operational limitations of using CEWs to effect 'everyday' arrests.

There have also been examples of CEWs being lost, both here and overseas. A QLD officer lost a CEW in its holster in dense bushland in June 2010 while he was searching for a wounded Kangaroo. It was not found until almost five months later, several kilometres from where it was thought to have been lost (AAP, 2010). The record shows a number of accidental deployments as well, and suggests that officers are disciplined for these deployments with more frequency than other types of misuse (Victoria Police, 2011; Queensland Police Service, 2012).

Without doubt the most serious incident was the shooting death of Adam Salter, 36, in NSW in November 2009. This death brings into focus the full gamut of unforeseen consequences that CEW carriage can bring. Adam was shot in the shoulder by a senior police officer during an incident in the kitchen of his father's home where he was self-harming with a knife.

Since the rhetoric surrounding the power of CEWs to save lives had been accepted, the media naturally asked the question of why a CEW was not used in this instance, since the officer was carrying one (Watson, 2009). In fact, the officer had yelled 'taser, taser, taser' before deploying her firearm leaving open the suggestion that she mistook her firearm for her CEW (New South Wales Coroner, 2011: 16). The officer denied this in her statements to police during the investigation, arguing that she definitely intended to deploy the firearm. Openly acknowledging that she regarded CEWs as unreliable in critical incidents, Sergeant Bissett testified the following when asked why she did not draw the CEW on her belt:

'Because of the space, the confined space, because Abela (her fellow officer) was on him. I've already tasered someone and it didn't work. I don't think that the taser is so accurate. For the taser to work both prongs have to go in and, if one prong misses, it's not effective. Plus, if both prongs have gone in, depending on the movement, the wires are so thin that they can break anyway. If they break, it doesn't work so he could still stab him and they were still moving. The guy and Abela weren't standing still...' (New South Wales Coroner, 2011: 16)

Such circumstances are not without precedent: there have been cases in the USA involving officers mistakenly shooting suspects when they had intended to draw a CEW, often resulting in lawsuits and out of court settlements (Leonard, 2010, Msnbc, 2011)²⁵. If the deployment in this case was in fact a mistake, it is possible that events in the United States persuaded police that it would be best not to admit to a mistake.

In the inquest finding, the Coroner outlines a number of 'difficulties with the police version of events' (New South Wales, Coroner, 2011: 19-25). He found that:

It seems likely that at the critical time Ms. Bissett intended to use her taser and, in the event, made a mistake but, if that be not the case and she always intended to go for her gun, it is difficult to see that she gave the use of a less deadly alternative any real consideration (New South Wales Coroner: 24).

²⁵ One of the most prominent cases involved the shooting of an African American man by a Caucasian transit police officer in Oakland California (Leonard, 2010). The officer, Johannes Mehserle, was charged with second degree murder as it was alleged that he intentionally fired his handgun into the back of Oscar J Grant III. Mehserle testified that he thought he was deploying a CEW and was subsequently found guilty of involuntary manslaughter, sparking widespread protest (Leonard, 2010). Six other officers in the case testified that they had made the same mistake, deploying a firearm when they meant to use a CEW (Leonard, 2010). The officer was sentenced to two years in prison and served eleven months after concessions for time served and good behaviour (Msnbc, 2011).

This shows the real operational limitations of CEWs. Although their utility in self-harm scenarios has been well demonstrated, there are also significant concerns that have not yet been acknowledged. While questions regarding the use of CEWs on the mentally ill and human rights compliance remain unresolved, it is hard to discount the reality that there are several examples in the available data of CEWs being used effectively to de-escalate similar scenarios. Such events are prominent in the case studies included in the Victorian CED pilot interim evaluation and also noted by the WA CMC (Victoria Police, 2011; CMC, 2010). All this shows that significant uncertainty exists around the role played by CEWs in the application of minimum force.

At the time he was shot, Adam Salter was being treated by paramedics for a self-inflicted knife wound to his chest. Witnesses testified that he was not threatening any of the several people in the room (including his father, paramedics and two police officers). Still, the officer's clear rationale for the shooting was fear for the life of the junior officer present at the scene, as Salter had jumped up and reached for the knife that was left in the kitchen sink (New South Wales Coroner, 2011; AAP, 2011b).

The Coroner was deeply critical of police testimony and the quality of the subsequent investigation. He termed the after-event walkthrough conducted by police as 'a failure and disgrace', outlining how it resembled a coaching activity rather than a fact finding exercise (New South Wales, 2011: 33). He further outlined defects in the 'seriously flawed' critical incident report produced by police, which ignored the evidence of Adam Salter's father and the paramedics present (New South Wales, 2011: 37). He further expressed concern that the investigation failed to reassure the community about the circumstances of the death. Stopping short of referring the matter to the Police Integrity Commission (PIC), he noted that the family would be well advised to take that course. An investigation of the internal police review has recently commenced (Bibby, 2011).

This incident exposes the flaws in the argument that CEWs are useful in critical incidents, showing the doubts that are beginning to be experienced by officers who are being asked to rely on them. It gives rise to the suspicion that the weapon is ill-suited to most scenarios which might require the use of firearms. Had a CEW been deployed, there is no guarantee it would have been effective. It may have missed its target or the outcome may have been fatal even if it had connected. The thing most likely to have saved Adam Salter's life was proper risk assessment and containment of the scene, specifically removing the knife from his vicinity.

The outcome also arguably demonstrates the dangers associated with the 'situational model' of use of force, and the emphasis placed on use of force in police training for such incidents. The most basic failures in observation and management of the scene (especially in terms of the police failure to remove the knife from the scene when they had the opportunity) resulted in a fatal outcome. In response to the incident, Adam Salter's father, said:

I was the only one to do anything to stop him. The trained people shot him. To hell with danger, it was my son's life. If police think about danger, they should get a different job (AAP, 2011).

In saying this, he reflects the reasonable expectation of the community that police will use minimum force. The finding gives prominence to community perceptions about the justification of this shooting, and the current review will have to consider the role of the CEW in the outcome. Whether that review furthers the Australian debate about the problems associated with CEW use, in particular the special challenges to accountability that CEWs present, remains to be seen.

USE AGAINST PEOPLE WITH A MENTAL DISORDER

The fatal outcome of the police interaction with Adam Salter raises another key issue about the way CEWs are used in Australian policing. All major institutional reviews that have been carried out so far point to high levels of use against mentally ill people (QPS, 2008; New South Wales Ombudsman, 2008; Northern Territory Police, 2009; CMC, 2010; Victoria Police, 2011). In the QPS 2008 statistics, it was reported that 24% of CEW targets had an unspecified mental illness (QPS, 2008: 19). Also in 2008, the NSW Ombudsman's report indicated that 68% of people 'subjected to a Taser application' suffered from a mental illness (New South Wales Ombudsman, 2008: 59). NT's 2009 report indicates that over 43% of uses involved people with mental illness (NT, 2009: 70). In WA, the CMC raised concerns about the gradual rise in the percentage of CEW deployments involving mentally ill people, reporting that:

In December 2007, 6% of Taser weapon deployments were reportedly against mentally ill subjects. This rose to 7% in July 2008 and 9.5% between July and September 2009. This data reasonably raises the issue of mission creep in relation to Taser weapon use against people suffering a mental illness (CMC, 2010: 62).

In Vic, the OPI (2009) found that police required more training in dealing with people with a mental illness, and 73% of people involved in CEW incidents during the first six months of the pilot were identified as having a mental illness (Office of Police Integrity, 2009; Victoria Police, 2011). This very limited pilot trial produced only 11 CEW uses in the field (there were 12 in total but 1 involved an accidental deployment at the police station). The figure of 73% thus reflects only 8 uses against mentally ill people, and none of these involved actual deployments (Victoria Police, 2011). The threat of CEW use was used to affect arrest in each reported case. The interim report found no evidence of mission creep based on these early findings, although the implications of the data, from the perspective of police, are that CEWs are extremely effective weapons to use when dealing with critical incidents involving the mentally ill. This belief was also evident in material that emerged from the small set of targeted interviews conducted for this project. When asked why the two particular

locations had been chosen for the Victorian trial, a Police Association representative replied:

We think they've been chosen because there's a high incidence of psychiatric illness in those areas. There is a psychiatric ward at Bendigo and I'm not so sure there isn't one in Traralgon. We don't actually know why, but that's what we think... Anecdotally members tell us 'there's a lot of nuphys²⁶ around here, so we feel better when we confront these people' (Interview no. 3).

Research evidence shows that mentally ill people in Victoria have also been significantly overrepresented in police shootings incidents nationally (Task Force Victor, 1994; Kesic, Thomas and Ogloff, 2010). While the number of people killed by police with firearms in Victoria has dropped since the introduction of Project Beacon in 1994, the rate of representation of mentally ill people amongst this number remains the same (Kesic et al, 2010). Given the amount of conjecture that still circles around the issue of whether people in a mental health crisis are more susceptible to fatal or life threatening outcomes following CEW use, this data is concerning. It raises a separate set of ethical concerns that require consideration, which although beyond the scope of the present study, might form the focus of future research. Specifically, such research would measure the longer term outcomes for mentally ill people who have experienced CEW use during a mental health crisis or suicide attempt. The key concern for the present study, however, is to understand how CEWs are used in practice and the evidence suggests that mentally ill people are one vulnerable group that feature in the usage statistics.

In the same way that official statistics regarding CEW use against Aboriginal people are fraught with potential inaccuracies related to imprecise identification, the figures around people with a mental illness are probably also inaccurate to some extent. Police are not mental health experts, and may as a result misidentify or fail to properly identify a subject as having a mental illness. Further, it can be difficult to distinguish between an existing mental health condition and the effects of acute drug use. This is noted as a problem by several researchers attempting to investigate interactions between police and mentally ill people (Kesic et al, 2009; O'Brien, McKenna, Thom, Diesfeld and Simpson, 2010). Nonetheless, given the widespread acknowledgement of the issue, a number of questions must arise about the propriety of using CEWs against this group. Concerns have been raised by medical professionals in both Australia and New Zealand (O'Brien, McKenna and Simpson, 2007; Robb, Close, Furyk and Aitken, 2009; O'Brien et al, 2010; Edinger and

²⁶ I have learned through anecdote that 'nuphy' is a term used by some police in Victoria to describe mentally ill people. It is apparently an acronym of 'needed urgent psychiatric help yesterday'.

Boulter, 2011). Medical researchers in Australia have produced just one article to date specifically addressing the use of CEWs against people with a mental illness (Edinger and Boulter, 2011). This Western Australian research makes a number of recommendations for tightening CEW policy, including providing more warnings about the risk to mentally ill people and making medical attention mandatory. Currently in Australia, research on this issue remains limited and much more will be needed in the future if the current rates of use against mentally ill people continue to rise as they have been.

MISSION CREEP AND VULNERABLE AUSTRALIANS

Several controversial Australian incidents reflect the dangers associated with the use of CEWs against vulnerable groups, in circumstances which may not be considered proportionate and do not reflect the use of minimum force. Examining these bears out the reality that mission creep has manifested in Australia and has had fatal consequences. Each incident demonstrates the inability of policies or guidelines to prevent fatalities, or to restrict the use of CEWs to those requiring critical force. The perceived operational utility of CEWs (presumably fuelled by technofallacies) has had negative results in several prominent examples.

Andrew Bornen, a sixteen year old Queenslander, died in Ipswich in February 2009 after a CEW was used, but not deployed, during his arrest. Bornen was intercepted by police after residents reported a man wandering the streets behaving strangely. It was thought that he had a machete, but in fact he carried a baseball bat (Office of the State Coroner, 2010). When police located Bornen, who had a blood alcohol level of .197, they claimed that he 'brandished the bat in threatening manner' (one said he believed it was a machete) so one officer drew a CEW and the other a firearm (Office of the State Coroner, 2010).

The Coroner rejected police evidence that Bornen had been threatening, as he had no history of violence of any kind, and immediately complied with their order to drop the bat and get on the ground (probably fearing that the CEW would be used). Nonetheless, witnesses heard police yell 'get down on the ground, get down on the ground now' (Coroner's Court, 2010). 'Without resistance', Bornen lay down face down on the road on which he was standing (Coroner's Court, 2010). While one officer 'covered' him with his CEW, the other applied handcuffs. Following this, the officer with the CEW reholstered it and proceeded towards the police car to switch on its lights. At that moment, a car approached the scene. The woman driving the car could not see Bornen on the road, nor the officer waving frantically for her to stop. She ran over the boy who was lying handcuffed on the road, killing him almost instantly.

The Coroner referred the case to the Department of Public Prosecutions, although no criticisms were made of policy. The Coroner said, 'the evidence illustrates a failure to properly apply the mandated risk management procedures, rather than a deficiency in the procedures' (Office of the State Coroner, 2010: 13). Echoing the Salter finding, where the presence of weapons seemed to obfuscate the most basic safety steps, he referred to the

requirement to make continuous risk assessments (emphasised in QLD's circular use of force model) and argues this was not properly done. He found that the officer's actions in ordering Borden to lie on the road contributed substantially to his death. The threatening nature of the tool used to obtain this compliance was not considered in the finding. This failure to directly engage with the issues stemming from the presentation of the CEW in this case is disappointing and represent a lost opportunity to more fully interrogate the possible implications of mission creep in relation to the use of CEWs for gaining compliance from young people, which is a troubling trend emerging in the Australian data.

This case reflects the dangerousness of confrontational police tactics, which have long been recognised (see Task Force Victor, 1994). Public sentiment towards police in Queensland however was evidently strong enough to permit a sympathetic view of the matter as the outcome of a terrible mistake (Gray, 2010). The Queensland Council for Civil Liberties president, however, spoke out against police actions saying the incident was an example of CEWs becoming a 'de facto first option' (AAP, 2009c). They saw the case as raising serious issues about the 'automatic' use of CEWs and their use against children. Little or no comment was made about the fact that a firearm had also been produced; the presence of the CEW seemed to obscure this fact. This is another aspect of sublethal weapons use that remains to be fully understood: might the reassuring possibility of recourse to a 'less lethal' option work to increase the presentation of firearms in order to obtain compliance? In terms of the present analysis, Andrew Borden's death provides a clear warning of the unforeseen consequences of the widespread use of CEWs, especially against frightened young or otherwise vulnerable people.

As in so many cases involving errors of judgment on the part of police before this, no charges were laid (AAP, 2010b). The boy's mother expressed disgust and dismay in the media at her lack of recourse. She was amazed that no charges had been laid, thinking police would at least be charged with manslaughter (AAP, 2010b). The role played by the use of a CEW in this case has not been analysed in any depth until now, although it is hoped that police gained insight into the dangers associated with threatening young people with CEWs and firearms as an option of first resort in order to gain compliance.

GOTTLIEB RUBUNTJA

Two months after Borden's death (which attracted very little media attention outside QLD) another death occurred in Alice Springs in the NT. This time the link to CEW use was much more direct. Gottlieb Rubuntja, a 39 year old Aboriginal man, collapsed and died following two (or possibly three) CEW deployments and a 'not inconsiderable amount' of OC spray being sprayed in his face twice, both of which failed to contain him (Coroner's Court, 2010). After spending a significant time resisting arrest, during which he pulled one of the CEW barbs out (rendering it ineffective) and attempting to grapple the weapon away from an officer, Rubuntja began to lose his strength and breathe in a laboured way. He was put in

recovery position by police, who commenced CPR and called an ambulance. Ambulance officers failed to resuscitate him (Coroner's Court, 2010).

The evidence suggests that at the time of his death Rubuntja may have been suffering the onset of a serious mental illness and also had heart disease. He had no previous dealings with police but was causing concern for his family in the days leading up to his death. On that day, his mother called police, who attempted to take him into custody so a mental health assessment could be made at Alice Springs Hospital. Given all these factors, this incident could be termed a 'perfect storm' because it contains so many risk factors. Such cases present a significant challenge to medical professionals tasked with finding causes and contributors to death. In this case, the pathologist was particularly cautious, finding that a confluence of elements resulted in serious stressors to the heart that caused the death. The way the doctor words his conclusion is notable. He stated it was:

more likely a combination. I have to say I don't believe it's my opinion that the Tasing of itself was the cause of death. I don't believe that. I believe it hurts quite severely and that would contribute to the stress that this man was likely suffering. But I could not, I would have to be very careful of my wording but I don't believe I could isolate that as a particular event in this circumstance (Coroner's Court, 2010: 29).

It is of course, known only to the pathologist himself why he felt he had to be cautious in his wording but, on the balance of the evidence (and considering Taser International's propensity to litigate when people say adverse things about their product) it seems logical that the doctor was specifically reluctant to pinpoint CEWs as a cause of death. This provides evidence of a certain hierarchy of credibility, the maintenance of which becomes a key concern for those on the ground, and especially forensic pathologists. It was submitted that Rubuntja may have been suffering a heart attack at the time police attended and that this may have been the cause of his strange behaviour. Although there is no specific mention of 'Excited Delirium' in this finding, it reflects the trend in the US towards reluctance to implicate CEWs in the outcome.

The downloaded data showed the CEW had been deployed against Rubuntja 8 times over 2 minutes and 14 seconds (Coroner's Court, 2010). Police argued that only two of those activations were effective, as the others occurred after the barb had been removed, preventing the electrical circuit from being made. When this occurs, a CEW makes a tell-tale cracking noise, which civilian witnesses confirmed they heard (although at the time they did not realize that the activations were ineffective). Given that Rubuntja continued to run around during the incident he could not have been experiencing the kind of incapacitation that an effective CEW deployment would cause (NMI). Still, the important issues in the context of the present research are not about whether the CEW contributed to the outcome, but that it did not, in any way, help prevent it.

The CEW use was ineffective; it failed to obtain compliance (despite a warning and the officer 'laser painting' Rubuntja). In fact, the evidence suggests that both the use of the CEW and the subsequent use of a significant amount of OC spray may have inflamed the situation. In his highly agitated state, Rubuntja fought until he died. It is worth noting that although he spent a short time being restrained while lying on his chest, no signs of positional asphyxia were present at autopsy. The Coroner concluded, somewhat ambiguously, that 'on the evidence the actions of the police in relation to the deceased may have contributed to his death BUT they may not have' (Coroner's Court, 2010: 44 emphasis original).

He deals with the family's assertion that the CEW was a major cause of death by saying:

I note that as part of the submissions delivered on behalf of the family their Counsel...submitted that the "inescapable logic of the evidence before the court" was such that there was an "unacceptable risk of death" and, as such, the use of Tasers in the Northern Territory should be discontinued. I do not accept this submission and I do not agree that this is the only conclusion that can be reached upon the evidence. Indeed, in my view, the use of Tasers is preferable (despite any inherent risks) to the use of deadly force with high powered guns and revolvers. In this regard, I refer to the findings in the death of Eduardo Concepcion [2001] NTMC 25 handed down in Darwin on the 25 January 2001 (Coroner's Court, 2010: 43)²⁷.

Nonetheless the Coroner noted that he considered the CEW use 'premature and inappropriate' (Coroner's Court, 2010: 42). In the context of the present research, this finding is telling. It shows the degree of ambiguity, and the difficulties encountered by both legal and medical professionals attempting to negotiate the prevailing hierarchy of credibility around CEWs.

In his finding, the Coroner in the Rubuntja case recommended that police be trained not to use CEWs for compliance only, stating:

police training in relation to the use of Tasers be such that police understand quite clearly that Tasers should not be used simply as a compliance tool and their use should only be considered in the most serious of circumstances (Coroner's Court, 2010: 47).

He further found that amendments be made to NTs Good Practice Guide to reflect Taser International's targeting advice in relation to target areas and direct police that the point of aim should be:

²⁷ Concepcione's death was discussed in Chapter Three (p.90).

to the back when practical and that where such shots are not practical the point of aim should be to the lower centre of mass for front shots (Coroner's Court, 2010: 47).

Police had made this amendment in their 2009 policy, and the finding was probably influenced by debates about the safety of chest deployments in North America occurring in the context of the Braidwood Commission hearings. Robert Dziekanski had died in October 2007, well before Rubuntja but the finding was released just two months following this incident and so would have been known to the Coroner by the time the finding was handed down August 2010. The question that must ultimately be asked of this incident in terms of the current study is would firearms have reasonably been used in this situation were it not for the CEW? The most likely the answer to this question is no. In this case, CEW use was clearly for compliance and bore little relation to the prevention of lethal force.

ANTONIO GALEANO

The most controversial CEW proximate death in Australia to date happened in QLD two months after Rubuntja's death in the NT and less than a week before the Braidwood findings were released in Canada. In the early hours of Friday June 12, 2009 police were called to attend a home in Brandon, a suburb of Townsville, where Antonio Galeano, 38, was causing a domestic disturbance. The earliest reports of the event suggested the man was naked, violent and very aggressive when police arrived. Police used a CEW in the arrest, and the man apparently 'collapsed and died while being handcuffed' (Kellet, 2009). The Police Union President put forward his views in the media the same day, saying:

Although a Taser was used by police, at this stage I believe that it is unlikely that this will ultimately emerge as the cause of death, due to other contributing factors...I believe that the deceased had caused a number of injuries to his person prior to police arriving and whilst police were trying to apprehend him and it is possible that toxicology reports could also be helpful to the Coroner.

*It should also be noted that **if the police officers did not have a Taser available in this case, they would certainly have had to resort to use of a firearm** due to the level of danger that they were exposed to given that the deceased armed himself with a number of weapons (Kellet, 2009, emphasis added).*

Such statements to the media by police are highly problematic, especially when they contain information that is likely to be prejudicial to a fair assessment of the circumstances. As a Coronial finding in this case has not yet been delivered, it is difficult to recount the events in this case with any certainty. Further examples of statements made by Ian Leavers, the Police Union President include:

We're talking about a person with a history of violence involving the use of weapons. He was armed with an iron bar and may have had access to firearms.

For some minutes after (being tasered) he was talking to police when he suddenly slumped and died (Michael and Ironside, 2009).

These statements fall into a clear pattern of denial and blame-shifting that is evident after many deaths in custody, particularly in cases where events are contested or controversial. The practice of official bodies blackening the reputation of people who have died this way is present nationally and internationally. This serves to deflect attention away from deficits in police behaviour and towards the human frailties of the deceased (Scraton and Chadwick, 1986). That this occurs so frequently is perhaps best explained by Alexander's notion of 'dirty hands' whereby the moral burden of deaths in custody is concentrated in the hands of a few, namely police and other custodial officers. As such, the public is uncomfortable with scrutinising their actions too heavily (Alexander, 2000).

Given the conjecture surrounding the lethality of CEWs, Leavers second statement is very telling, and suggests that police were already switching towards 'damage control'. One of the key issues in rebutting the notion that CEWs may cause death is that electrical death occurs immediately after the current is active. The length elapsing between CEW use and death would be a key factor in a pathologists (and the public's) mind in a case such as this. Considered in light of Becker's thesis of hierarchies of credibility, it is clear to see why such statements should be prohibited by law, as was noted in the Task Force Victor report which recommended:

That consideration be given to enacting legislation prohibiting senior police officers from publicly expressing opinions concerning loss of life arising from police action prior to the completion of relevant inquiries (Task Force Victor, 1994: 4).

Since police statements to the media presented a scenario that suggested the community has been saved from a violent rampage, there was little information that was sympathetic to Galeano in media reporting and little emphasis on the fact that he had recently been discharged from a mental health facility. Also, he did not have 'a number of weapons' but instead was armed with a towel railing (widely termed a 'metal bar' in reporting) which he had broken off the wall of the bathroom into which he had retreated (McKenna, 2009; Michael and Ironside, 2009). Further, while it was initially reported police had deployed their CEWs only 'up to three times' it was soon apparent from the downloaded data that the Taser was deployed not 3 but 28 times (McKenna, 2009; CMC, 2009). Police have since argued that the CEW was defective, and that it is not possible to tell how many of the recorded activations had an effect on the man and that the officer only pulled the trigger two or three times (McKenna, 2009). Ten days after the death, a 'union spokesperson' commented in the media:

It is very possible that this bloke died of excited delirium...He had a heart condition, apparently caused by his drug habit, and was basically a walking heart attack. This

confrontation alone, even without the use of a Taser, may have killed him (McKenna, 2009).

On the Monday morning following the Galeano incident, QPS commanders halted the CEW roll-out that was underway in QLD at the time, and a CMC investigation was immediately commenced (CMC, 2009). The joint CMC/QPS review reported a month later, making a series of policy recommendations (CMC, 2009). It would seem that QPol reacted promptly to the events (and the publicity generated) since the review found that both policy and training had already been altered to address most of the risks the review identified (CMC, 2009). In particular, the CMC review noted that thresholds for use (from preventing injury to serious injury) had been raised and that the links between CEWs and injuries and deaths had been highlighted in policy (see Appendices Three, Four and Five). Again, this is typical of institutional responses to deaths in custody which demonstrate a practice of altering policy to deflect direct, official criticism.

The inquest finding in the Galeano case, which is yet to be handed down, will be of particular interest in the context of this research. While on the one hand, it seems clear cut that excessive CEW use (most likely brought about by ignorance of the weapon's capacity to be lethal) was a factor in Antonio's death, this possibility was rigorously denied by QPS. The statement made by the Union President that Galeano 'was talking to police' is strongly refuted by witness testimony at the inquest, which included evidence that the man's face 'turned black' after the CEW was deployed (Ironsides, 2010).

At the same time, Australian Taser distributor George Hateley distanced himself from the events, arguing via the media that it was extremely unlikely that the CEW unit had malfunctioned. He argued that he had instructed police 'to minimise the exposures as much as possible' (McKenna, 2009). Unless QPol can make the argument that they were not sufficiently aware of the dangers of multiple deployment or that the Taser® malfunctioned the actions of the officer in this case will be difficult to justify. It is possible that this case may cause significant disagreements between QPS and Taser International. Warnings about prolonged or multiple deployment were not present in the policy intended to guide the officers when the Galeano incident occurred, and this was one of the main alterations made in the up-dated policy which was released in September, 2009.

THINH BA LE

The last death reported in Australia at the time of writing was that of Thinh Ba Le²⁸. This occurred in Sefton, NSW October 2010 and occurred amid a storm of controversy raging around the excessive use of CEWs against Kevin Spratt, discussed earlier. It occurred early in the morning the day after footage of the Spratt incident in WA had been made public. The coincidental timing of these two events mobilised strong media attention to the issue of CEWs, and the first nationally televised debate about the weapons was held on the *Insight* program on October 10, 2011 (SBS, 2010). This represents a significant shift towards greater public questioning of the rhetoric about CEWs' harmlessness that was used to support their introduction. The program invited the Taser® distributor, police, lawyers, academics (including this author), two young men who had experienced CEW deployments and the parents of a man who had been shot by police (and who believed that a CEW may have saved their son's life) to present their views to the public. This program covered a range of viewpoints, including some that reinforced the harmlessness of the weapons, such as one young man who mostly joked about his experience of CEW use and also police who defended their choice to embrace the weapons and argued for their benefits (SBS, 2010). Controversial deployments were also discussed, including the Spratt incident and critical views were aired.

There remains little known about the events surrounding this death at the time of writing since the inquest is pending. This account has been put together entirely on the basis of media reports. It appears that Thinh was subjected to a CEW when he lunged at police with two knives after police had been called by a woman he allegedly assaulted (ABC PM, 2010). The CEW was deployed to the chest, Thinh was handcuffed on the ground and police quickly noticed he was not breathing. In the days following the death, the NSW Chief Commissioner defended CEWs, claiming they had saved lives (Minus, 2010). Notably, this death occurred well after Taser's new warning against chest deployment was issued, although the warning is not reflected in NSW policy.

CONCLUSION

In assembling a range of prominent examples of CEW use, this chapter has sought to demonstrate some of the outcomes of the deployment of CEWs as general issue weapons. It shows that mission creep is very evident and that most of the prominent incidents mirror circumstances that have unfolded overseas. These include burns resulting from CEW use, weapons confusion incidents and disproportionate use against certain groups, especially Indigenous people and those with mental illnesses. Such disproportionate use against

²⁸ As mentioned, there has very recently been another controversial death in NSW, that of Brazilian student Roberto Laudisio Curti on 18 March, 2012. Because of its recent occurrence this death has not been included in the dataset.

particular groups is evident in all states that have produced data about the use of CEWs by police. It is also reflected in the fact that the majority of people who have died proximate to the use of a CEW (or have been seriously injured) have also come from these two groups.

It is evident from this discussion that Australian jurisdictions assembled their policies in a hasty manner that took little heed of the accumulated experience of police overseas. The first jurisdictions to adopt wide usage of CEWs, WA and QLD, seem to have relied on information from limited sources. Prominent amongst these sources was the manufacturer of the CEWs they had purchased, whose corporate interests have coloured the advice they offered police about how to incorporate CEWs into everyday policing. Whilst it now appears that the understanding of CEWs (by the public and the police) is becoming more nuanced, this analysis suggests that police were initially provided with less information than they needed in order to develop the best possible instructions for operational officers who took the new weapons out on the streets.

The enthusiasm for CEWs in Australia (just as overseas) has been propelled and legitimized by a range of technofallacies. These fallacies fuel misplaced beliefs about the capacity of CEWs to provide a silver bullet solution. In particular, a belief in the explicit agenda of CEWs to minimise harm is sustained although there is little evidence that a significant number of lives have been saved so far since the introduction of CEWs. Instead, CEWS are frequently used in circumstances that would not warrant the use of firearms, reflecting the notion of netwidening. This suggests that much of the rhetoric used to introduce them was misleading, at best. The evidence presented here supports the argument that the principle of minimum force is sometimes eroded by the use of CEWs, rather than supported (which would only be the case if it were clear that CEWs reduced the use of firearms without the unintended consequence of mission creep). The concluding chapter will draw together these arguments and present a range of suggestions for the future direction of research in this area.

CONCLUSION: BELOW THE BELT

'Yes it's painful but it's painful for a very short time...I'd still rather be shot in the chest with a taser than a 9mm semi-automatic' (Greg Davies, Victorian Police Association Secretary quoted in Dowsley, 2012).

Collectively and globally, there must be an authentic conversation about the possible futures for mankind (sic) and the planet that does not privilege the already established practices of power habitually watched over and nurtured by the doyens of global high policing (Sheptyki, 2007: 78).

Through a phronetic examination of CEW use by police in Australia, this thesis shows that Australian jurisdictions have repeated many of the mistakes, accidents and misuses that are evident in jurisdictions internationally wherever CEWs have been incorporated into policing armouries. The analysis has demonstrated the interplay of a hierarchy of credibility and technofallacies, which have both privileged the interests of CEW manufacturers (and one in particular) and facilitated the acceptance of CEWs, a new policing experiment. Further supporting this acceptance is the background of the gradual paramilitarisation that has characterised Australian policing since its colonial beginning.

The events of the last decade include deaths following from multiple deployments, deaths following from deployments to the chest, accidental shootings resulting from 'weapons confusion', burn injuries to subjects when CEWs were used in the presence of flammable substance and a series of clear abuses of the weapon even where policy has attempted to prohibit such uses. Similar incidents had occurred overseas, sometimes repeatedly and particularly in the USA, well before policies controlling the use of the weapons in Australian jurisdictions were drafted. In some cases, such as in the death of Antonio Galeano, police policy included insufficient warnings to police about the potential dangers associated with CEWs. In others, as mentioned, the events occurred despite the presence of such warnings, as was the case in the two examples of in WA of burns being sustained by CEW targets.

The extent to which these events are the result of insufficient awareness on behalf of police, malpractice on the part of police or to the deliberate marketing strategies of Taser International is impossible to know. Evidence presented here demonstrates that a high degree of confusion and insufficient knowledge characterised the adoption CEWs in Australian policing. While Victoria remained uncommitted to CEWs until very recently, Tasmania is the only state to have declined to take up CEWs as a general issue weapon. As discussed previously, there is good reason for caution in regard use of force management in

Victoria. The state's disastrous history in relation to their use of firearms might suggest that it would be one of the first to rush to incorporate the new, apparently lifesaving technology. While this did occur in relation to Victoria's special response police (SOG and CIRT), it has not been the case for general duties police, who have been armed instead with semi-automatic weapons to replace older style six shot revolvers that were previously used (the pros and many cons of which must be left aside for another discussion). The extremely cautious approach to the broader deployment of CEWs that is evident in Victoria arguably results from the degree of strategic planning and careful appraisal of the facts that has occurred in that state. The amount of time taken by Victoria police to plan, conduct and evaluate the general issue trial, the locations chosen for those trials along with public statements made by senior police, especially former Chief Commissioner Simon Overland, indicate that Victoria Police are well aware of the of the operational limitations of CEWs (Miller, 2009). The Police Association take a different view, as reflected in the very recent statement made in the media by TPAV Secretary, Greg Davies who chooses instead to continue to cultivate the false notion that CEWs have an explicit agenda (to replace firearms)(Dowsley, 2012).

Other Australian jurisdictions are beginning to show a greater awareness of the problems associated with CEW use, especially mission creep, and policies have moved towards more restrictive standards with time. Unfortunately this process has come at the cost an unnecessary number of lives lost. There are two significant lessons that flow from this. The first of these points to the importance of good research and strategic analysis in policing, and to the wisdom of bolstering such a skill base in police organisations. The second lesson draws attention to the potency of new technologies in modern policing. There is little doubt that police were seduced by the marketing strategies and rhetoric adopted by Taser International in the process of selling their product. Senior Australian police and Union representatives consistently repeated Taser International's company line that CEWs have never been named as a 'direct' cause of death, which was simply not true. In reality, Taser International had commenced a concerted campaign against any Coroner or pathologist who attempted to draw such links in the early 1980s and continues that campaign at the time of writing. Crucial realities have been underplayed in the public debate and the efficacy of CEWs has been sold to the public in the absence of the full facts.

A CHAMELEON RHETORIC?

Illuminated by the notion of the technofallacy, this thesis has examined the rhetoric that surrounded the introduction of CEWs and found it strongly flavoured by the orthodoxies of Taser International. The possibility of fatal outcomes following CEW use was consistently denied and the significant dangers underplayed in police policy and the public debate. This is evident in the initially liberal nature of early Australian CEW policies, especially WA and QLD. The thesis has demonstrated that policies moved gradually toward being more restrictive with the passage of time. This finding reinforces the importance of careful assessment of the evidence and the benefits of creating restrictive policies around all new

weapons technologies. Such policies can be loosened if experience dictates, which is a better outcome for all concerned than the alternative which involves painful lessons learned only from grim experience.

Corbett and Marx's technofallacies help to make sense of many of the issues illustrated in this thesis. The widespread assumptions that CEWs were primarily intended to reduce firearms use can be linked to the fallacy of explicit agendas. As Corbett and Marx point out, it is often the case that technologies are introduced with a number of other goals (beyond those that are publicly stated). In the case of CEWs, cost savings from reduced organisational liability for workplace injuries seem certain to have played a part in the take up. The fallacy of novelty dictates that new weapons will invariably improve on old ones, and explain the uncritical way in which CEWs were initially accepted by police and the public. Corbett and Marx explain a widespread feature of 'technological fixes' for social problems, where newness equals goodness in many people's minds and where needing to appear up-to-date is a driving factor for the adoption of new technologies (Corbett and Marx, 1991: 4).

The fallacy of intuitive appeal is also evident, whereby the mystique of CEWs was built upon perceptions that 'they certainly seem as if they would work' as electricity is universally frightening. For police to harness this power made so much sense that 'near enough' evidence about their safety was viewed as quite acceptable, despite it being very obviously flawed in several respects. Here, the next fallacy of the free lunch (or painless dentistry) also helps explain why the pitfalls of CEWs received so little critical attention. The failure to question the moral and ethical reasonableness of arming police with electrical weapons can also be explained by the seventh technofallacy, that of technical neutrality. This assumes that any consequences of a CEW's use, whether good or bad, is a function of how the device is used and not related to the technology itself, which is rarely criticised. Both the fallacy of the sure-shot and the failsafe system also support the confidence that has been demonstrated in relation to the CEWs reliability, and the ability of manufacturers to sell their weapon as well suited to critical incidents without any significant public acknowledgement of the weapons significantly limited utility for use against armed suspects. The limitation is apparent in some police policies, especially Victoria where, during the weapons trial, officers using a CEW were required to be covered by an officer with a firearm. In NSW, CEWs were also prohibited for use by junior officers patrolling 'one up'.

While these fallacies help explain the uncritical acceptance of CEWs by consumers, this analysis shows that police have not always been completely seduced by them. Australian jurisdictions, especially Tas and the NT, have been more critical about the utility of CEWs than others. So while the notion of the technofallacy is useful, it does not account for every aspect of CEW use examined here.

THE NEED FOR RESTRICTIVE POLICY

This thesis also demonstrates that policy has not always prevented poor outcomes from CEW use in Australia. Several examples of CEWs being used outside policy restrictions have been provided. The evidence of 'mission creep' is enough to be overwhelming and there is clear disproportionate use against vulnerable groups, especially Indigenous people and people suffering from mental illness. The consequences of this overuse are yet to be fully understood, but given what we know historically about the impacts of police use of excessive force, it is unlikely that they will be positive in any way. In the presence of cultural forces such as a sense of mission and an orientation towards action, technofallacies and the trend towards paramilitarism it is easier to understand and predict the usage patterns that have been observed in Australia.

The final key question that this thesis sought to answer concerns accountability. Three main modes of accountability arose from the data here: independent oversight, Coronial inquests and court proceedings, both criminal and civil. It has proven difficult on the basis of the data to make definitive conclusions about police accountability for CEW use resulting in death, as only three of the deaths involving CEWs have had their inquests finalised (each is summarized below). Each of the deaths discussed below is that of an Aboriginal Australian. A handful of official inquiries have been finalised (and often involving close participation of police) and there have also been criminal and civil proceedings involving CEW use.

The first of the inquests, involving Mark Conway, found in essence that while the police involved in this incident showed insufficient understanding of policies and procedures, their use of a CEW in drive stun mode was nonetheless reasonable in the circumstances. This liberal assessment of police actions possibly stems from the fact that this death was the first in the country to be understood as proximate to CEW use (unlike Gary Pearce's death in May 2002) and so the Coroner was entering waters uncharted in Australia. There would only have been the North American backdrop to refer to, which was characterised by findings that were either in favour of the fact that CEWs had played no part in the fatal outcome, or were called to question by subsequent legal proceedings issued by Taser International. Additionally, as previously discussed, there was remarkably little media attention paid to the incident and so there was very little pressure for public accountability. A number of critical observations can be made about the police handling of this incident, but most importantly it should be noted that the use of firearms would have been very difficult to justify under the circumstances.

The second finding, handed down in July 2010, involved the death of Andrew Borden. This death was not caused by the electrical current of a CEW, but arguably by the confrontational attitude of the officers involved and their failure to risk-manage effectively. In this case, again the Coroner found that police had handled the situation badly, but recommended no charges and therefore there was no significant outcome in terms of greater regulation of CEW use against unarmed minors. In this case, the CEW was produced purely for the

purpose of gaining compliance and again, the use of firearms would have been very difficult to justify. Therefore, it cannot be said that the CEW was used for the purpose of saving life or preventing injury.

The third and final finding concerned the death of Gottlieb Rubuntja in Alice Springs. In this case, although the use of CEWs was labelled both premature and inappropriate by the Coroner, police were not held to account and instead recommendations were made about changes to training and targeting advice. NT policy was significantly overhauled as a result and the warning against use on Aboriginal people was included, although this was not in response to a Coroner's recommendation. Rather, it seems to have been done on the basis of a common sense appraisal of the emerging international evidence, and an understanding of the poor health status of many Indigenous Australians. Neither the Galeano nor the Ba Le inquests have as yet been finalised and so it is not possible to comment on their outcomes at this time. It will be interesting to see if they fit into the rather forgiving patterns evident in the first three cases.

Official inquiries have had an observable impact on CEW policy in Australia, usually resulting in more restrictive policy. While such inquiries do arguably provide a veneer of accountability that is limited in its longevity, the importance of ongoing oversight and interest in issues arising from police use of CEWs cannot be overstated. The outcomes of Australian court cases examined here are also relatively encouraging. They show a willingness to censure the use of CEWs as a compliance weapon. So far, the evidence suggests that Australian courts are unwilling to accept the use of CEWs in circumstances other than critical incidents and a willingness to guard against mission creep. Preventing this outcome may depend on the public's willingness to call police to account. Official inquiries are not direct mechanisms of accountability, although those that have been conducted so far in Australia and the generally controversial events that have triggered them have sometimes caused policies to be tightened. Overall though, this analysis shows that it is likely to be the courts that will most potently control the phenomenon of mission creep.

THE PRINCIPLE OF MINIMUM FORCE

In gathering the data presented, this thesis has ultimately sought to explore the impact of CEWs on the principle of minimum force. In some ways, this principle was co-opted by the proponents of all sublethal weapons. It has been reinvented to suggest that the introduction of CEWs would improve policing. This has been made possible through the recasting of the old maxim to become *minimum injurious force* rather than the more traditional meaning of *minimum coercive force*. The difference is subtle yet extremely important.

Perhaps the best evidence for this is found in the emphasis on the effectiveness of the coercive capacities of CEWs in media statements made by police managers. These statements demonstrate the degree to which coercive force has been normalised in modern Australian policing, and to which the potential pitfalls of this approach are being forgotten.

As discussed in the introduction, Peelite philosophies have never fully underscored policing practices in this country; however they are clearly present in the rhetoric of mission statements and policy. It is argued here that if the principle is to continue to be used by police, it requires clarification and refinement in circumstances where sublethal weapons are routinely deployed (especially when threatened but not fired).

A robust debate about this issue is required in this country, and others, if we are to be fully cognisant of the consequences of the proliferation of such weapons in modern state policing. The serious impact of coercive policing on democratic processes has been made clear during recent times across the world, especially during what has been termed the Arab Spring. While these have been extreme events they do highlight the importance of consensual policing styles in a modern democracy. If communities are to consent to their most vulnerable members being policed through the threat of electricity, they should at least be given the full set of facts about the possible implications.

If it is the case that sublethal weapons use by police will significantly alter policing styles in the future, the main consequence of concern is the fracturing of relationships with pockets of the community that already experience over-policing. Arguments about the benefits which flow from the use of coercive weapons based strategies in everyday policing rarely take account of the issue of police legitimacy. Fractured police/community relationships can severely undermine social harmony and make the job of policing ever more difficult. It is impossible to draw any conclusions about the long-term impact of sublethal weapons on the Australian policing landscape on the basis of this research, however, as it is simply too early to tell what the implications will be. It is hoped that this thesis will provide a starting point for a growing body of scholarship in Australia that explores these issues in more depth.

ACCOUNTABLE WEAPONS USE

In Australia, clear problems have arisen from the use of sublethal weapons, and especially CEWs, in the absence of effective accountability processes. History has already shown, especially in Victoria (the main field of this author's observations of policing), that the accountability of police for use of weapons remains lacking in several crucial aspects (see Harding, 1970; Freckelton, 2000; OPI, 2009). The factors contributing to this are well established: evidence about the circumstances in which weapons are deployed is generally supplied by police, use of force is investigated by police who may be sympathetic towards the point of view of those under investigation and it is difficult to attribute culpability to police when those involved are often amongst the most disempowered groups in society. Finally, where death or injury is the result of police actions, the record shows that juries are reluctant to bring down guilty verdicts against police who are seen as only trying to do their jobs in the best way they can. There seems to be a certain 'moral division of labour' that makes people reluctant to blame police for tasks that we are reluctant to undertake ourselves (Alexandra, 2000).

The main mechanisms for ensuring that weapons are used appropriately by police are law and policy. Internal and external disciplinary strategies rely on being able to make an appraisal of an officer's choice to use high levels of force. In addition, officers' ability to provide a transparent account of their decision to use a CEW, by reference to policy, is a key aspect of ethical use (Kleinig, 2007). While the law is well established in terms of the importance of proportionality, this analysis shows that policy is less clear in terms of the directives provided to police in choosing to deploy a CEW (or other sublethal weapon), and significant inconsistencies exist across Australia on several key issues. Without clear, uniform guidelines for officers (and those who assess their activities) to refer to, we are left to rely on evidence provided by police themselves when deciding about the appropriateness of their behaviours. The weaknesses in Use of Force models, discussed in Chapter Four, must be addressed in light of the ambiguities presented by sublethal weapons.

Although 'Use of Force' registers, now common in police agencies, provide some insight into what brought about a particular use of force outcome, the physical space provided for explanations of circumstances and decision making processes on the forms provided is limited. To add to this problem, police may not be inclined to produce well-reasoned treatises on the ethical intricacies of their decision making process anyway. This is a key limitation of several empirical studies of sublethal weapons use which rely on information supplied by police in understanding the dynamics of use of force encounters (Strote and Hutson, 2006; Adams and Jennison, 2007; Smith et al, 2007; White and Ready, 2007; Ready et al, 2007; Smith et al, 2007). Police will always, perhaps understandably, provide a positive account of their behaviour making any research that relies solely on police reports unreliable.

For this reason, we might applaud the inbuilt data chip that records the time, duration and frequency of a CEW's use. Some police departments are now purchasing CEWs with attachable audio-visual recorders to allow more open scrutiny of police decisions. These cameras still cannot assure us that we will always be privy to the full circumstances of each deployment (technology can be over-ridden) but there is probably good reason to support their use nonetheless. Ultimately though, as Kleinig has argued, the way to resolve the ethical problems of CEW usage most adequately is to ensure that all officers who deploy them do so only with 'an active sense of themselves as bearers of public trust committed to providing a better public service than those for whom they provide it could do on their own' (Kleinig, 2007: 291). Kleinig argues that only the most judicious (and minimal) use of CEWs will avoid an inevitable erosion of public trust in police, especially amongst already disenfranchised populations. He sets the importance of public trust against the importance of avoiding injuries to police officers and raises some important concerns regarding too much emphasis being too obviously placed on the latter. It is of course, difficult to make definitive judgments about where the balance between these two important 'goods' should lie, but Kleinig suggests that we ought to begin to debate and discuss the possibilities.

As discussed in Chapter Five, there are clear advantages to the establishment of national guidelines to ensure that the use of CEWs in Australia is accountable and consistent. As Biles argues, the 'new style of Australian policing', coloured by frequent recourse to sublethal weapons is concerning enough to warrant a national inquiry in order to protect Australia's reputation as 'a fair and compassionate society', which if damaged would flow on to impact tourism, trade and investment (Biles, 2010). Of course, there are other features of democratic society also at stake, such as respect for human dignity and rights. Without clearly established, uniform guidelines it will be difficult to judge police decisions about using CEWs in any grounded way. With over 7,000 CEWs operating across the country, it is no longer acceptable that policies remain inconsistent, as they presently are. This is especially so in relation to the warnings provided to police about use against vulnerable groups, and particularly Indigenous Australians. The need for national guidelines is well established. After the death of Thinh Ba Le in October 2010, which was arguably a result of NSW policy failing to warn about deployments to the chest, it was reported in the national press that the federal government was 'pushing for a standard approach to policing with the electro-shock weapon' and that the Australian New Zealand Policing Advisory Agency was 'drawing up national guidelines...to present to the nation's police ministers early next year' (Bita, 2010). No such guidelines have yet been produced; although there is little doubt they are urgently required for the sake of operational police and the Australian public.

Such guidelines are necessary in order to regulate the coercive capacity of police especially at the federal level. That the AFP were armed with CEWs and given the Prime Minister's permission to use them against refugees being forced to board planes shows the normalisation of CEWs for coercive purposes (Thompson, 2011). This brings into stark relief the need for their CEW deployment to be democratically controlled. In relation to the incident on Christmas Island, Julia Gillard stated that 'Obeying instructions here is not a question of volunteering. We are determined to get this done' (Thompson, 2011). As a spokesman from the Australian Lawyers alliance said, many of the people who were being forced onto planes to Kuala Lumpur (before the High Court ruled the move illegal) were traumatised already and had been brutalised by police in their country of origin (Thompson, 2011). He argued, 'It's herding cattle - we herd you onto a plane and we herd you off at the other end and you put up with the treatment you get' (Thompson, 2011). These events demonstrate the need for restrictive, enforceable national standards to ensure the use of CEWs in Australia underscores the principle of minimum force rather than being used to ramp up the already considerable coercive capacities of police. Troublingly, it is not only CEWs that are in this frame, with bean bag rounds and tear gas being used to quell resistance to oppressive conditions on Christmas Island (Thompson, 2011; Needham, 2011).

This thesis proposes that the establishment of national, legally enforceable guidelines to control CEW use is the only way to ensure that the weapons cannot be used coercively against unarmed and otherwise vulnerable people. Sufficient data is now available to begin

constructing model guidelines to place parameters around the manner and circumstances in which police should be allowed to use CEWs: this must be done for the sake of citizens who seek recourse for the improper use of CEWs in Australian jurisdictions. For reasons explained in Chapter Four, they will have little success making reference to internally generated Use of Force models. The models currently in use establish a very broad scope for officer discretion. Even if they fail to universally prevent poor policing outcomes, national guidelines will help to ensure recourse for victims when such outcomes occur.

FUTURE RESEARCH

In casting the Australian experience of CEW deployment as a case study through which to understand broader issues about the consequences of sublethal weapons for state controlled policing, this thesis sheds light on a number of issues that will need to be addressed in the future. New weapons technologies, epitomized by the CEW, present new challenges to those interested in the regulation of policing and the improvement of policing practices. These include building knowledge about the core assertion supporting the introduction of sublethal weapons - that they reduce the need for police to resort to firearms. Analysing this question has not been the purpose of this research, indeed on the current available data, it would be difficult to provide a numerically definitive conclusion on this issue. However, it can be said, based on the analysis of policy and practice undertaken here that CEWs are *not* being used only as an alternative to firearms in Australia. This is clear since there is no direct prohibition of use against and unarmed people in any Australian state. Second, the reviews that have been conducted have indicated that a high proportion of CEW use is against unarmed people.

Another task for future researchers is the analysis of the philosophical implications of the growing array of weapons available to police in any given situation and the extent to which they prove a help or a hindrance to policing practice that is respectful of human rights into the future. At what rate weapons will continue to evolve it is impossible to say, but previous experience suggests that the wheels of invention will continue to turn, as the manufacturer's goal of profiteering aligns with policing goals of being innovative and appearing professional.

Future research should also examine the adequacy of police training in the use of sublethal weapons, along with continuing to record the contexts in which they are used, their rates of use and the socio-demographics of their most frequent targets. This latter point is especially important in the Australian context, where the relationship between Indigenous people and police has traditionally been hostile. The impact and outcomes of policing with sublethal weapons in remote communities is a vital area requiring more research.

CONCLUSIONS

This thesis has demonstrated the replication of specific operational mistakes (or abuses) that have been noted overseas in relation to CEWs. This reflects a lack of attention to the

available evidence base on the part of policy makers in some Australian jurisdictions, especially those that adopted CEWs early. This is evident in the fact that Australian policies developed after 2009 have tended to be more restrictive and generally clearer in their warnings and proscriptions.

Six key questions were posed in the Introduction. The first three aimed to examine how policy reflected the stated rationales used to support the introduction of CEWs in Australia. Chapter three presented a detailed examination of the media reporting and public debate of CEW introduction and demonstrated the emphasis placed on the replacement of lethal force in the material examined. The analysis of Australian policy presented in Chapter Five suggests that CEWs are situated as an intermediate weapon in Australia and are not intended exclusively to replace firearms. The answer to the third research question, are policies consistent with rationales for introduction, must therefore be expressed in the negative. In addition to policy requirements, Chapter Six reported further evidence that CEWs have been used outside of policy in Australia, answering the fourth research question. It also answers the fifth question, showing that CEWs have been used disproportionately against vulnerable groups, particularly Indigenous and mentally ill people. The answer to the final key question is more elusive, as the thesis demonstrates broad aspects of accountability. Courts' decisions show a tendency towards restricting use of CEWs, and oversight bodies have thus far taken an active interest in the issue. Nonetheless, ensuring accurate reporting of CEW use, especially unholstering without releasing the safety catch, is likely to remain problematic. At the very least, police oversight agencies in each state should require access to Use of Force reports for every CEW use as a standard practice to help limit the extent to which CEWs might increase the use of disproportionate coercive force by police.

In examining in detail the first years of CEW use in Australia, and setting the events against the trends that followed the introduction of OC spray, this thesis has sought to demonstrate the broader implications of sublethal weapons use in Australian policing. The significant variations in CEW policies across Australian jurisdictions demonstrate inadequate understandings of the weapon's limitations, when used by general operational police, especially in the jurisdictions of WA and QLD, who have led the CEW roll-out in Australia. Consistent national guidelines are needed if we are to prevent sublethal weapons like CEWs from slowly eroding the principle of minimum force, and confidence in and consent for policing styles in Australia.

A greater awareness of the operational limitations of CEWs is needed, not just in Australia, but globally where technofallacies, hierarchies of credibility and militarisation have worked to foster a sense of complacency about the possible effects of these weapons on the fabric of liberal democracy. While these effects may not be starkly evident now, there is no way to be assured that they will not be so in the future: future generations may yet regret our not having thought more carefully about the impact of use of force technology on policing. This thesis represents a beginning for the development of an Australian body of knowledge

which will be required by future generations seeking to understand the nature of the policing they will inherit. The place of sublethal weapons, and especially CEWs, in that future will largely be determined by the degree to which both police and the Australian public understand the importance of their legacy and work actively towards sustaining long cherished policing principles, especially the foundational notion of minimum force.

APPENDICES

APPENDIX ONE

TIMELINE OF PROMINENT CEW EVENTS

1972

Jack Cover files for patent on technology to develop Weapon for Immobilization and Capture (US Patent No 3803463)

1983

August 10 - Vincent Alvarez (Hispanic, 27) dies in Los Angeles – the first reported CEW proximate death

1984

January 22 – Raul Guevara, Jnr (Hispanic, 30) dies in Los Angeles proximate to CEW use

1985

April 11 – Cornelius Garland Smith (African American, 35) dies in Los Angeles proximate to CEW use

1986-1994

Victoria Police Shootings Era

Task Force Victor recommends sublethal weapons

1992

Terrence Allen writes a letter to the editor of the *Journal of Forensic Sciences*

1995

Sept – Capsicum spray trialled by SOG, VIC

1997

June - death of Roni Levi shot dead on Bondi Beach, NSW

July - Capsicum spray issued to 2000 police supervisors, and full training and roll-out by end of 1998, VIC

1998

Taser International, Inc. is established in the US by the Smith brothers

April 10 – death of John McConnell shot dead in Vic

1999

Oct 20 – death of Eduardo Concepcion shot dead in NT

2000

Feb – ‘Air Taser’ demonstrated by FBIS (Bob Falconer) in WA

Mar – ‘Air Taser’ demonstrated by FBIS (George Hateley) in NSW

CEWs introduced into Tactical Response Group, WA

9 May – death of Benjamin Basford shot dead in QLD

20 Dec – Vic Coroner recommends ‘the use of Air Tasers be considered (after proper consultation) as an additional alternative for general policing’ in McConnell inquest finding, Vic

2001

25 Jan – Coroner recommends CEWs be introduced in Concepcion inquest, NT

August – London Metropolitan Police commence CEW trial, UK

31 August - Qld Coroner recommends that ‘earnest consideration be given to the adoption, as it has been done elsewhere by other police forces, of the Taser Weapon’ in Basford inquest finding, Qld

Dec – 2 CEWs introduced into Tactical Operations Unit, NSW

2002

May – death of Gary Pearce (heart attack) two weeks after subjected to CEW, NSW

June – Taser® M26 demonstrated by FBIS (George Hateley now director), QLD.

– 2 CEWs introduced into Special Emergency Response Team, QLD

July – STAR (Special Task and Rescue Squad) commence unevaluated trial CEWs, SA

2003

- Territory Response Section trials CEWs, NT

July – Demonstration of Taser® X26 by Tom Smith

Nov - 12 month Trial of CEWs in Special Operations Group (SOG), VIC

2004

20 Feb – death of Michael Eddy after capsicum spray use. First mention of 'Excited Delirium' in an Australian Coronial Inquest, QLD.

May – death of Gregory Biggs shot dead in Vic

Nov – SOG and Force Response Unit (FRU) adopt CEWs, VIC

26 Nov – CEWs deployed on Palm Island, QLD

Dec – CEW Trial commences, ACT

Dec 3 - cap spray death, NSW

2005

4 Aug – Vic Coroner recommends CEWs be made available to sergeants and above, VIC

Dec – CEW@ Trial concludes, ACT

2006

June - Public Order Response Group trial CEWs – no deployments in 14 months

2007

Feb – death in Victoria following capsicum spray use

12 Feb – Michael Eddy's Coronial finding dismisses 'Excited Delirium' as a cause of death

Jun – Deputy Chief Police Officer issues CEW report, ACT

-WA expands to general issue of CEWs, WA

-CEWs introduced to Public Order and Riot Squad, NSW

1 Jul – QLD general policing CEW Trial commences

15 Aug. – death of Mark Conway proximate to CEW, WA

14 Oct – death of Robert Dziekanski at Vancouver Airport, Canada

Dec – NSW Ombudsman’s review commences

15 Dec – death in Victoria following capsicum spray use

2008

29 Jan - Police Minister Judy Spence MP, announced the rollout of CEWs to all operational QLD police.

Feb – CEWs made general issue in NT

11 Apr – Trial expanded to all officers in (Dutton Park Division) QLD
- 16 y/o girl subjected to CEW at Southbank on first night of the trial

May – General issue of CEWs announced in NSW

Jun – CEW Trial announced, SA

Jun – Commissioner Nixon announces CEWs will not be made general issue, Vic

Aug 30 – Kevin Spratt, a 38 year old Indigenous man, is ‘tasered’ 13 times in the East Perth Watchhouse, and another 11 times during a cell extraction at the East Perth Lockup the following week, WA

Oct – CEW Roll out commences in NSW

Nov 1 – Ombudsman’s Report to Parliament on *The Use of Taser Weapons by New South Wales Police Force* released. Recommends that SOPs be tightened, NSW

14 Nov – Magistrates Court criticises police for CEW use against 16 y/o girl, dismisses charges. Police face disciplinary action, QLD

30 Jun – Trial Concluded in QLD

16 Jul - \$14 million committed for roll out and training in QLD

Nov – CMC accuse QPS of biased evaluation

12 Dec – death of Tyler Cassidy (15) shot dead in Northcote, VIC

2009

1 Jan –CEW Roll out begins, QLD

7 Feb – death of Andrew Bornen (16) proximate to CEW in Ipswich, QLD

24 Feb – Two peak bodies in Canada (CAPB and CPA) release model policy guidelines

4 Mar – CMC issues media release criticising CEW use against 16 y/o girl at Southbank, QLD

6 Mar – footage of Southbank incident released

Mar – CEW Review commences, NT

16 Apr – death of Gottlieb Rubuntja proximate to CEW Alice Springs, NT

12 Jun – death of Antonio Galeano (38) proximate to multiple CEW deployments in Townsville, QLD

18 Jun – ‘Restoring Public Confidence’ Braidwood Commission’s Report into death of Robert Dziekanski released, Canada

19 Jun – CEW roll out halted QLD

2 Jul – Trial Review Results made public in QLD

NSW Roll-out extended

20 Jul – Ronald Mitchell burst into flames after Taser use in Warburton, suffering permanent injuries, WA

Jul – QPS/CMC Review into Policy, Training, Monitoring and Review released QLD

Aug – six month trial of 10 cameras announced, WA

Aug – Office of Police Integrity releases report warning against broader roll out of CEWs, Vic

Oct – Coronial findings into death of Gregory Biggs released (after 5 and a half years) – Vic

12 Oct – Taser International issues Training Bulletin 15 which warns against chest deployments

17 Nov – announcement that CEWs will be carried in cars, SA

22 Dec – death following capsicum spray use in Noble Park, VIC

2010

Jan – six month trial of 10 cameras commences, QLD

- CEW roll out recommenced, QLD

31 Jan – Second man ignited by CEW in WA

May – Post Implementation Report released, WA

Jun – Review of use of Tasers completed, NT

10 Jun – Inquest into death of Antonio Galeano begins, QLD

4 Jul – CEW Trial commences in Bendigo and Morwell, VIC

6 Jul – Sydney Morning Herald reports on CEW Trial outcomes after Freedom of Information action against NSW Police. Shows two thirds of targets were unarmed.

16 Jul – Finding into death of Andrew Bornen delivered (after 17 months), QLD

11 Aug – Finding into death of Gottlieb Rubuntja delivered (after 15 months), NT

3 Oct – Steven Bosevski dies after being subdued with batons and capsicum spray at St George Leagues Club in NSW

4 Oct – Corruption and Crime Commission's Report 'The Use of Taser Weapons by the Western Australia Police' released. Footage of the Perth Watchhouse incident from 2008 is made public, WA

Report of head injury suffered by a man who fell down stairs after confronting police with broken glass. OC and Taser used. 3 police injured, NSW

5 Oct – **death of Thinh Ba Le (25) proximate to CEW use to chest in Sefton, NSW**

Attorney general calls for review of disciplinary procedures, WA

8 Oct – Deaths in Custody Watch Committee calls for CEWs to be withdrawn, WA

19 Oct – Inquest into death of Tyler Cassidy begins, VIC

SBS airs Taser program, first televised public debate involving police, lawyers, members of the public who had experienced CEW use and researchers.

15 Nov – Breon Enterprises co-sponsors inaugural NSW Police Officer of the Year awards (together with the Rotary Club)

2011

March – Herald Sun publishes FOI information about capsicums spray use by police in young people in Victoria

14 March - AFP use 'tear gas' on protestors in Christmas Island Detention Centre

16 March – media reports CS gas used again by AFP at Christmas Island Detention Centre

30 June – **Victorian trial ends.**

2012

March 11 –Victoria announces roll-out of CEWs as general issue weapons

March 18- death of Brazilian student, Roberto Laudio Curti (21), proximate to 3 CEW deployments in Pitt St. Sydney

APPENDIX TWO

TASER INTERNATIONAL VOLUNTARY EXPOSURE CONSENT FORM

Volunteer Warnings, Risks, Liability Release and Covenant Not to Sue May 31, 2011
TASER®, M26™, X26™, X3®, X2™, XREP® and © are trademarks of TASER International, Inc. All rights reserved. © 2011 TASER International, Inc. All rights reserved.

If TASER® electronic control device (ECD) Exposures are performed, they must be performed by a TASER certified instructor¹ or an authorized TASER distributor (for non-US ECD demonstrations only). This document incorporates all current TASER ECD warnings by reference.²

¹A Certified TASER Instructor possesses and maintains a current TASER instructor certification for the specific product model they are teaching, demonstrating, or using and is required to be fully compliant with TASER's most current training requirements and materials.

²This document does NOT contain all of the current product warnings. The most current product warnings are on www.TASER.com.

PRIOR to any TASER ECD Exposure, all volunteers MUST: (1) read the most current TASER ECD warnings; and (2) read and sign this form.

IMPORTANT ECD PRODUCT SAFETY AND HEALTH INFORMATION

Read, understand, and follow current TASER training, safety instructions, and warnings before experiencing a TASER ECD Exposure and before participating in TASER ECD training. Any use of force or physical exertion involves risks that a person may get hurt or die. **This document is effective May 31, 2011, and supersedes all prior revisions.**

SAFETY INFORMATION: TRAINING ECD EXPOSURES

XREP® Training Rounds. Do not fire XREP Training Rounds at humans or animals. The XREP Training Round will cause penetration wounds resulting in death or serious injury. The XREP Training Round is intended solely for practice target shooting in order to gain familiarity with the flight profile of the XREP ECD.

Spotters. All persons taking a TASER ECD Exposure must be properly supported by spotters so they do not fall or must be lying down on a mat. Each spotter should hold an upper arm under the armpit, so that the person can be safely supported and lowered to the ground after being hit without twisting or putting undue stress on the arm or shoulder. If probes are deployed in lieu of attaching spent wires or alligator clips, then eye protection is required for both the spotters and the person being exposed. Provided that no probes are attached to the person's arms, there should be no electrical pulses flowing into the spotters and they can safely support the person being exposed without negative impact.

No Minors. Because of parental/guardian consent issues, no minor will be exposed to a TASER ECD as part of a training course, demonstration, or otherwise.

SAFETY INFORMATION: ECD KNOWN AND POTENTIAL SIDE EFFECTS

Physiologic or Metabolic Effects. The ECD can produce physiologic or metabolic effects which include, but are not limited to, changes in: acidosis; adrenergic states; blood chemistry, blood pressure; calcium, creatine kinase ("CK"); electrolytes (including potassium); lactic acid; myoglobin; pH; respiration; heart rate, rhythm, capture; stress hormones or other biochemical neuromodulators (e.g., catecholamines). Therefore, reasonable efforts should be made to minimize the number of ECD exposures and resulting physiologic and metabolic effects. In

human studies of electrical discharge from a single ECD of up to 15 seconds, the effects on acidosis, CK, electrolytes, stress hormones, and vital signs have been comparable to or less than changes expected from physical exertion similar to struggling, resistance, fighting, fleeing, or from the application of some other force tools or techniques. Adverse physiologic or metabolic effects may increase risk of death or serious injury.

Physiologically or Metabolically Compromised Persons. Law enforcement personnel are called upon to deal with individuals in crisis who are often physiologically or metabolically compromised and may be susceptible to arrest-related death (“ARD”). The factors that may increase susceptibility for an ARD have not been fully characterized but may include: a hypersympathetic state, autonomic dysregulation, capture myopathy, hyperthermia, altered electrolytes, severe acidosis, cardiac arrest, drug or alcohol effects (toxic withdrawal or sensitization to arrhythmias), alterations in brain function (agitated or excited delirium), cardiac disease, pulmonary disease, sickle cell disease, and other pathologic conditions. These risks may exist prior to, during, or after law enforcement intervention or ECD use, and the subject may already be at risk of death or serious injury as a result of pre-existing conditions, individual susceptibility, or other factors. In a physiologically or metabolically compromised person any physiologic or metabolic change may cause or contribute to death or serious injury.

Higher Risk Populations. ECD use on a pregnant, infirm, elderly, small child, or low body-mass index (“BMI”) person could increase the risk of death or serious injury. ECD use has not been scientifically tested on these populations. The ECD should not be used on members of these populations unless the situation justifies possible higher risk of death or serious injury.

Muscle Contraction or Strain-Related Injury. ECDs can cause strong or moderate muscle contractions that may result in physical exertion, athletic, or sport-type injury, including, but not limited to, injuries such as: hernia rupture, dislocation, tear, or other injury to soft tissue, organ, muscle, tendon, ligament, nerve, bone, or joint; or injury or damage associated with or to orthopedic or other hardware. Fracture to bone, including compression fracture to vertebrae, may occur. These injuries may be more serious and more likely to occur in people with pre-existing injuries, orthopedic hardware, conditions or special susceptibilities, which include but are not limited to, known or unknown: pregnancy; osteopenia; osteoporosis; spinal injury; or previous muscle, disc, ligament, joint, bone, or tendon damage or surgery. Such injuries may also occur when a person reacts to the ECD deployment or discharge by making a rapid movement.

Seizure. Repetitive stimuli (*e.g.*, flashing light or electrical stimuli) can induce seizure in some people. This risk may be increased in a person with a seizure history or if electrical stimuli pass through the head area. This may also result in a person falling with a possible secondary injury.

Stress and Pain. The ECD can cause temporary discomfort and pain which may result in stress, panic, anger, rage, or startle which may be injurious to some people and may cause adverse changes in blood chemistry. Additionally, anticipation of ECD exposure can cause stress, trepidation, panic, startle, or fear, which may also be injurious to some people.

Neurocardiogenic Response (Fainting). A person may experience an exaggerated response to an ECD exposure, or threatened exposure, which may result in a person fainting or falling with possible secondary injury.

Incapacitation, Falling, and Startle Hazard. ECD use may cause muscular contraction, Neuro Muscular Incapacitation (NMI), startling, and falling, which could result in death or serious injury.

SAFETY INFORMATION: ECD DEPLOYMENT AND USE

Minimize Repeated, Continuous, or Simultaneous Exposures. Reasonable efforts should be made to minimize the number of ECD exposures. ECD users should use the lowest number of ECD exposures that are objectively reasonable to accomplish lawful objectives and should reassess the subject’s behaviors, reactions, and resistance level before initiating or continuing the exposure.

Sensitive Body Part Hazard. When possible, avoid intentionally targeting the ECD on sensitive areas of the body such as the head, throat, chest/breast, or known pre-existing injury areas without legal justification. The preferred target areas are below the neck area for back shots and

the lower center mass (below chest) for front shots. The preferred target areas increase dart-to-heart safety margin distance.

Drive-Stun Mode is Usually Pain Compliance Only. The use of a handheld ECD in drive-stun mode is painful, but also is generally temporary, localized, and does not cause NMI.

SAFETY INFORMATION: PROBE OR ELECTRODE INJURY OR INFECTION

Eye Injury Hazard. If a TASER probe, electrode, or electrical discharge contacts or comes into close proximity to an eye it could result in serious injury, including permanent vision loss. DO NOT intentionally aim an ECD at the eye of a person or animal without justification.

LASER light could result in serious eye injury. The ECD uses a LASER as a targeting aid. Avoid intentionally aiming the LASER at the eye of a person or animal without justification.

Probe or Electrode Injury or Infection Hazard. ECD use may cause a mark, burn, scar, penetration, other skin, or tissue damage or infection. Provide First Aid and medical care as needed.

Scarring. Use of an ECD may cause irritation, puncture, mark, abrasion, rash, burn, keloid, or other scarring that may be permanent. This risk may be increased when using the M26™ or X26™ ECD in drive-stun mode with the cartridge removed or the X3® or X2™ ECD in drive-stun mode due to the multiple sets of electrical contacts. The nature and severity of these effects depends on numerous factors including the area of exposure and method of application, individual susceptibility, and other circumstances surrounding ECD use, exposure, and after care.

Penetration Injury. The TASER probe has a small dart point which may cause a penetration injury to a blood vessel or internal organ (including lung, bone, or nerve). The probe or dart point (which may detach) can also puncture or become embedded into a bone, organ, or tissue, which may require immediate medical attention, surgical removal, or may result in scarring, infection, or other serious injury.

Penetration Injury Care. Injury due to penetration of the probe or dart point into a blood vessel, organ, nerve, or bone may require medical attention. A probe, dart point, or barb embedded in a sensitive area such as the eye, the genital area, breast, neck, throat, or vascular structure may cause serious injury and may require special medical attention and further evaluation.

Probe Removal. Probe removal may cause injury. Leaving a probe in the body may result in pain or injury. In the case of embedment, organ or bone penetration, or probe, dart point, or barb detachment, immediate medical attention and possible surgical removal may be required.

Skin, Wound, or Infection Treatment. ECD use may cause a skin irritation, puncture wound, abrasion, mark, rash, burn, keloid or other scar which may require medical attention and may be permanent. As with any injury of this type, infection or tetanus and resulting complications may occur in some circumstances.

Biohazards. Utilize appropriate biohazard protocols and personal protective equipment including Body Substance Isolation procedures, gloves, masks, and washing of hands and exposed areas as necessary.

Untethered Discharged Probe. In probe deployment, it is possible that a discharged probe that does not impact a subject or target may become untethered from the wire and travel a significant distance. A loose, untethered probe can cause serious injury.

SAFETY INFORMATION: GENERAL PRECAUTIONS

Unintentional Deployment Hazard. Unintentional ECD activation could result in death or serious injury to the user, force recipient, and others.

Store in a Secure Location. Store ECDs, cartridges, and accessories in secure locations inaccessible to children and other unauthorized persons to prevent inappropriate use, which may result in death or serious injury to the user, other persons, or animals. ECDs and cartridges are weapons and are not toys.

Use of ECD's Safety. Always place the ECD safety switch in the down (SAFE) position when the ECD is not in use. Remember to place ECD safety switch in the up (ARMED) position when you intend to use the ECD.

Keep Body Parts away from Front of ECD or Cartridge. Keep your hands and body parts away from the front of the ECD and cartridge, unless instructed otherwise. A discharging ECD or cartridge could result in serious injury.

Avoid Static Electricity. Keep the cartridge away from sources of static electricity. Static electricity can cause the ECD or X26 or M26 cartridge to discharge unexpectedly, which could result in serious injury.

Beware of Electronic Equipment Interference. Interference from electronic transmission equipment in close proximity to the ECD could interfere with the proper operation of the ECD and cause the ECD to discharge. Keep the ECD at least several inches away from other electronic equipment. Place the ECD safety switch in the down (SAFE) position whenever it is immediately adjacent to electronic equipment (including transmitting radios and cell phones). Remember to place the ECD safety switch in the up (ARMED) position prior to attempting use.

Avoid Dropping ECD or Cartridge. If an ECD or cartridge is dropped or damaged it may unintentionally deploy or discharge, become inoperable, or fail to function, making it unsafe for continued use.

Hazardous Substances. The ECD contains components that contain chemicals known to the State of California and others to cause cancer and birth defects or other reproductive harm. Do not disassemble. Refer to your agency's Guidance for proper handling and disposal.

Please fill out the sections below. If you have a condition or pre-existing injury that would be aggravated by muscle contractions, physical exertion, or stress check the appropriate box and notify the Instructor prior to participating in the TASER ECD Exposure.

I have no injuries, physical or mental conditions that could be aggravated by muscle contractions, physical exertion, stress, or exposure to the electrical discharge of TASER ECDs.

I have the following pre-existing physical or mental conditions/injuries that could be aggravated by the TASER ECD Exposure:

I freely and voluntarily agree to be exposed to the electrical discharge of the TASER ECD under the following conditions:

LIABILITY RELEASE, COVENANT NOT TO SUE AND HOLD HARMLESS

In consideration of receiving information on the TASER products and a TASER ECD Exposure, I acknowledge and agree as follows:

1. I understand that a TASER ECD Exposure results in strong muscle contractions, physical exertion, and stress and involves the risk of physical or other injury. I acknowledge that I have read the above Warnings and Risks and current TASER ECD warnings and with full knowledge of such risks, I voluntarily agree to experience a TASER ECD Exposure and I assume all risks, whether known or unknown, foreseen or unforeseen, inherent in the TASER ECD Exposure.

2. Intending that this form be legally binding upon me, my heirs, executors, administrators, and assigns, I hereby waive, release, and forever discharge the instructor, the TASER distributor, my agency and employer, TASER and all of its agents, directors and employees of and from any and all claims, demands, rights and causes of action of whatsoever kind and nature, arising from, and by reason of any and all known and unknown physical and mental injuries and consequences thereof, whether foreseen or unforeseen, suffered by me from any TASER ECD Exposure. I specifically waive any statutory rights I may have regarding the release of known or unknown claims.

3. I further agree that neither I nor my heirs, estate, personal representative, nor any other person or entity will ever institute any action, litigation or suit at law or in equity against the instructor, the

TASER distributor, my agency and employer, TASER and all of its agents, directors and employees for any damages, costs, loss or injury arising out of any and all activities related to and including any TASER ECD Exposure.

4. I further agree to indemnify and save harmless the instructor, the TASER distributor, my agency and employer, TASER and all of its agents, directors and employees from all liability, loss, costs and obligation of any and every kind on account of or arising out of any injuries or losses incurred by me, however occurring, arising out of any and all activities related to and including any TASER ECD Exposure.

5. In signing this form, I agree that I have read and understand this entire form; I affirm that I am competent to agree to, sign, and be bound by this form; I understand that it is a promise not to sue and a release and indemnity for all claims; I further understand that by signing this form I am giving up certain legal rights including the right to recover damages in case of injury; and I agree to abide by the terms and conditions of this form.

6. This release does not release any rights I may have under Workers' Compensation Laws. I waive any Workers' Compensation subrogation rights against TASER. I agree that any recoveries under Workers' Compensation Laws do not change, extend or enlarge the waivers and protections inherent in this agreement.

Date Signed

Printed Name _____

Address _____

Mail or fax a copy of this form to:

TASER International, 17800 N. 85th St., Scottsdale, AZ 85255, Fax: (480) 905-2027

Source: <http://www.taser.com/release-forms>

APPENDIX THREE

TABLE 4: AUSTRALIAN CEW PRE-DEPLOYMENT POLICY ITEMS

Pre-deployment Items	W/A 2007	W/A 2010	QLD 2008	QLD 2009	NSW	NT 2008	NT 2009	Vic VPM	Vic CCI 05/10	AFP
General Issues										
Reliance on TI Material	✓				✓		✓			
Voluntary exposure allowed?				✓						
Policy publicly available?	✓	✓	✓	✓	✓					partly
CEWs not permitted on one person patrols									✓	
Definition of 'use' provided?		✓	✓	✓		✓				✓
-Drive stun		✓	✓	✓		✓				✓
-Probe mode		✓	✓	✓		✓				✓
-Arcing		control				✓				
-Laser dotting/painting		control				✓				
-Presentation		control	✓	✓		✓				✓
-Holding/pressing against without activating			✓	✓						
Must turn on the 'CED' when drawn from the holster					✓				✓	
Thresholds for Use										
Use alongside OC spray	✓									
Defence against physical injury						✓	✓			
To protect against violent confrontation					✓					
Protect officer from being overwhelmed					✓					
To arrest where physical injury is threatened						✓	✓			

Pre-deployment Items	W/A 2007	W/A 2010	QLD 2008	QLD 2009	NSW	NT 2008	NT 2009	Vic VPM	Vic CCI 05/10	AFP
Resolve an incident where physical injury is threatened						✓	✓			
To deter/protect against attacking animals					✓	✓	✓			
Where there is a real and imminent risk of serious harm		✓					✓			
Against those who attempt to apply physical force to anyone			✓							
To reduce a threat		✓								
Avoid immediate threat of assault			✓							
Against those who physically assault police			✓							
Against those who actively resist police			✓							
To prevent injury to any person	✓									
Avoid deadly threat										
Avoid/ prevent serious injury		✓		✓					✓	
To protect human life					✓					
Alternative to lethal force						✓				
To reduce officer injuries						✓				
To reduce subject injuries						✓				
All other less lethal options were not or would be ineffective									✓	
De-escalation was or would be ineffective									✓	

APPENDIX FOUR

TABLE 5: AUSTRALIAN CEW DEPLOYMENT POLICY ITEMS

Deployment Items	WA 2007	WA 2010	QLD 2008	QLD 2009	NSW	NT 2008	NT 2009	VIC VPM	VIC CCI 05/10	AFP
General Issues										
Verbal warning required	✓**	✓**	✓**	✓**	✓**	Officer's discretion	✓	✓**		
Laser spotting advised					✓	✓	✓			
Arcing advised						✓	✓			
Arcing may reduce effectiveness		✓								
Cycles allowed						up to 3	up to 3			
Backup required/advised	✓						for edged weapons			✓
Cameras fitted?				2010	✓			✓	✓	?
Links to serious harm identified?					✓		✓			
Links to death identified?				✓	✓		✓			
Targeting advice provided										
Avoid chest?		✓					✓	high risk	✓	
Avoid throat									✓	
Avoid face/eyes?	✓	✓	✓	✓		✓	✓		✓	
Avoid groin	✓	✓				✓			✓	
Avoid intimate body parts									✓	

Deployment Items	WA 2007	WA 2010	QLD 2008	QLD 2009	NSW	NT 2008	NT 2009	VIC VPM	VIC CCI 05/10	AFP
Avoid breasts on females						✓				
Not into the back of someone running away	✓***	✓								
Primary Target centre mass of back					✓	✓	✓			
Secondary Target centre mass of torso						✓	✓			
Secondary target lower torso front					✓					
Target centre mass above and below waistline					✓					
Warnings provided to operational police										
Purpose										
Not as a compliance measure	✓						✓			
Not punitively or for coercion			✓	✓				✓		
Not to rouse unconscious people			✓	✓				✓		
Context										
Not against passive resisters			✓	✓	✓	✓	✓	✓		
Not for crowd control			✓	✓				✓		
Not against occupants of vehicles		✓	✓	✓			✓	✓		
Not when handcuffed		✓		✓*		✓	✓	✓*		
Not near water		✓				✓	✓			

Deployment Items	WA 2007	WA 2010	QLD 2008	QLD 2009	NSW	NT 2008	NT 2009	VIC VPM	VIC CCI 05/10	AFP
Avoid heights/secondary injuries		✓	✓	✓		✓	✓	✓		
Not near explosives, flammable liquids or gases	✓	✓	✓	✓		✓	✓	✓		
Not near OC spray				✓						
Not against those with firearms						✓	✓			
Modes of use										
Against drive stun		Only to complete circuit			Only exigent circumstances			Only in exceptional circumstances		
Against use of more than 1 CEW				✓						
Against prolonged deployment				✓		✓	✓	high risk		
Against multiple deployment				✓	✓**	✓	✓	increased scrutiny		
Vulnerable groups identified										
Personal characteristics										
Indigenous people							✓			
Infirm people (elderly/frail)		✓	✓*	✓		✓	✓			
Juveniles			✓*					high risk		
Children		✓		✓		✓	✓	high risk		
Small body mass/low body weight				✓*				high risk		

Deployment Items	WA 2007	WA 2010	QLD 2008	QLD 2009	NSW	NT 2008	NT 2009	VIC VPM	VIC CCI 05/10	AFP
Pregnant women		✓	✓*	✓*		✓	✓	high risk		
Health Conditions										
People known to be in fragile health esp. heart conditions		✓				✓	✓	high risk		
Persons with medical conditions that may be worsened by CED use								high risk		
Displaying signs of 'Excited Delirium'	✓	✓								
Use against mentally ill - seek advice from health professionals				✓						
Avoid use on mentally ill people		✓					✓	high risk		
Avoid use on drug dependant/affected people							✓	high risk		
Avoid use on alcohol affected people							✓			

APPENDIX FIVE

TABLE 6: AUSTRALIAN CEW POST-DEPLOYMENT POLICY ITEMS

Post-deployment Items	WA 2007	WA 2010	QLD 2008	QLD 2009	NSW	NT	NT 2009	VIC VPM	VIC CCI 05/10	AFP
Aftercare										
Medical attention mandatory?					✓		✓	✓		✓
Probe removal allowed?	✓	✓	✓	✓	✓	✓	✓		✓	Only by a trained person
Reporting requirements										
Mandatory reporting	✓	✓	✓	✓	✓	✓	✓	Deployment only (presentation recorded at 251's discretion)		✓
Presentations recorded	✓	✓	✓	✓	✓		✓		*	✓
Laser dotting recorded		✓			✓		✓			
Arcing recorded		✓								
Data download after deployment		72hrs from deployment		72hrs from deployment	immediately					First available

Post-deployment Items	WA 2007	WA 2010	QLD 2008	QLD 2009	NSW	NT	NT 2009	VIC VPM	VIC CCI 05/10	AFP
										opportunity
Data download frequency		every 3 months							periodic	every 6 months
Data download retention		4 years								
Evidence collection provisions										
Directives on evidence collection?	✓	✓	✓				✓			
Throw away used cartridges?	after 4 weeks		✓	✓	unless kept for evidence		no	after 90 days		✓
Oversight and accountability										
Internal Oversight	Immediate Supervisor	District Training Officer		Significant Events Review Panel	Deputy Commissioner TASER Review panel	OSTT Unit		Divisional Superintendent		Operational Safety Committee
External Oversight	CCC	CCC	CMC	CMC	PIC	Ombudsman		OPI/ Review panel/ ESD		ACLEI/ C'wealth Ombudsman

*Not required in this policy but since amended to make this requirement (CCI 14/11)

APPENDIX SIX

MODEL AUSTRALIAN CEW GUIDELINES FOR POLICE

Pre-Deployment Considerations

General Issues

CEW policy should be readily available to the public.

Both policy documents and training modules should be developed independently from the advice of CEW manufacturers.

CEW policy and training should be updated based on emerging medical knowledge. Policing organisations should inform themselves of all major sublethal weapons research developments.

It should be compulsory for all operational police to recertify in CEW handling at least annually.

Exposure to a CEW during training should not be made compulsory.

Officers should never carry CEWs when patrolling alone.

Thresholds for Use

CEW deployment should only occur as a last resort. Each use should align with the principle of minimum force.

Thresholds for CEW use should be uniform in Australian jurisdictions.

CEW 'use' should be broadly defined. The definition should include verbally threatening to use a CEW, unholstering, aiming or pointing, activating, laser spotting as well as deployment in probe mode, drive stun mode or circuit completion mode.

CEWs should be restricted to situations involving the anticipation of serious injurious force, life threatening harm or death.

CEWs should be clearly presented in operational policy as intermediate weapons and not an appropriate replacement for firearms except in very special circumstances where serious injury or death is anticipated.

Deployment Considerations

General issues

CEW deployments should be restricted to probe mode only unless officers are attempting to execute a circuit completion.

The deployment of a CEW in drive stun mode should be strictly prohibited.

No more than three five second CEW deployments should be permitted during an individual incident.

The use of more than one weapon on a single suspect should be prohibited.

The use of CEWs for crowd control should be strictly prohibited.

Targeting Advice

Clear, uniform targeting directives that highlight the dangers of targeting the chest area, eyes, throat, groin or other sensitive body areas should be issued.

CEWs should not be used against people who are retreating from police, except when they pose a serious threat to police or others.

Warnings provided to Police

All risks identified in the literature as associated with CEWs should be included in policy.

Warnings should be provided about use against persons who are:

- running away
- in danger of falling from a height
- in danger of drowning
- in control of vehicles and
- in the vicinity of flammable substances

Each jurisdiction must ensure it keeps up-to-date with emerging research in relation to potential harms associated with CEW use.

Clear warnings about the propensity of CEWs to be ineffective (due to misfire, failure of probe connection, removal of probes by target) should be provided in training and policy.

Police should be warned against using a CEW to defend against people armed with any type of weapon, especially firearms.

CEW use (threat or deployment) should be prohibited against people who are handcuffed or otherwise restrained.

Vulnerable Groups

CEW policy should identify minors, people of small stature, elderly people, pregnant women, people known to have a pre-existing medical condition, drug or alcohol affected people and people experiencing acute mental illness should be listed in CEW policy and guidelines as groups who are vulnerable to increased levels of harm as a result of CEW use.

All Australian jurisdictions should identify Indigenous people as vulnerable to negative outcomes from CEW use.

Post-Deployment Considerations

Aftercare

Medical advice should be sought following CEW use (if requested).

Medical advice should be sought following every CEW deployment.

Each patrol car should carry such medical equipment as is necessary to provide immediate care to people subjected to a CEW (antiseptic treatments, wound dressings).

Reporting

Every defined CEW use should be reported in a national database. Details should include number, type and duration of deployment, location, details of offence, officer and suspect demographics, details of medical care provided and details of the incident outcome (including hospitalisation, charges laid, suspect/officer injuries if any).

Such reporting should be required immediately following the incident, or as soon as practicable.

Accurate reporting should be the focus of close, active supervision.

Disciplinary action should result from a detected failure to report the use of a CEW.

Use of force reports should be reconciled with CEW data downloads monthly and discrepancies reported to internal and external oversight officers.

CEW deployments should be routinely reported in publicly available Annual Reports and provided to oversight bodies.

Evidence retention

Clear advice on proper evidence retention and adequate collection containers should be provided to police officers.

All used CEW probes and cartridges should be retained and stored for a period of six months.

Oversight and Accountability

Clear consequences for policy breaches should be articulated and strictly enforced.

All CEW uses should be reported to and oversighted by relevant statutory bodies in each jurisdiction as they occur.

Oversight bodies and policing agencies should report annually to Parliament on CEW usage rates and patterns.

CEW usage statistics should be readily available to the public.

BIBLIOGRAPHY

AAP (2008) 'Aborigines are particularly vulnerable to the effects of taser guns, says a health body that is warning against using the weapon in remote communities.' at <http://www.news.com.au/perthnow/story/0,21598,23193217-948,00.html> accessed October 8 2008.

(2008a) 'Queensland police have launched an investigation after an officer lost his taser stun gun in the line of duty' at <http://www.stuff.co.nz/4468547a12.html> accessed April 17 2008.

(2008b) 'Taser death was news to me: police chief' *The Sydney Morning Herald* 19/11/08 at <http://news.smh.com.au/national/taser-death-was-news-to-me-police-chief-20081119-6aud.html> accessed 11 October, 2011.

(2009) 'Sydney police officer shoots himself with Taser' at <http://news.ninensn.com.au/article.aspx?id=755478&rss=yes> accessed 06 December 2010.

(2009b) 'Policeman shoots himself with Taser' *The Sydney Morning Herald* 22/2/09 at <http://www.smh.com.au/national/policeman-shoots-himself-with-taser-20090222-8efl.html> accessed 10 October 2011.

(2009c) 'Andrew Bornen, 16, too young for Taser, says watchdog' *The Courier Mail* 12/2/09.

(2009d) 'Man dies after being shot with a Taser in Townsville' *The Sydney Morning Herald* 12/6/09 at <http://www.smh.com.au/national/man-dies-after-being-shot-with-taser-in-townsville-20090612-c5b7.html> accessed 11 October 2011.

(2010) 'Police defend Taser use after second man catches fire' at <http://www.watoday.com.au/wa-news/police-defend-taser-use-after-second-man-catches-fire-20100202-nak5.html> accessed 02 February 2010.

(2010b) 'No charges after handcuffed teen's death' *ABC News* 23/12/10 at <http://www.abc.net.au/news/2010-12-23/no-charges-over-handcuffed-teens-death/1884720> accessed 11 October 2011.

(2011) 'Police shot rather than helped – inquest' *The Australian* 27/9/11 at <http://www.theaustralian.com.au/news/breaking-news/police-shot-rather-than-helped-inquest/story-fn3dxity-1226148358538> accessed 10 October 2011.

(2011b) 'Cop 'feared for life' before shooting – inquest hears' *The Australian* 29/9/11 at <http://www.theaustralian.com.au/news/breaking-news/cop-feared-for-life-before-shooting-inquest-hears/story-fn3dxity-1226151508635> accessed 10 October 2011.

ABC (2007) 'NSW Police issued with stun guns' at <http://www.abc.net.au/news/stories/2007/08/06/1997253.htm> accessed 10 August 2010.

ABC (2009) 'Car crashes after police fire Taser at driver' at <http://www.abc.net.au/news/stories/2009/04/27/2553467.htm> accessed 10 July 2010.

ABC (2010) 'Officer suspended amid Taser party trick probe' at <http://www.abc.net.au/news/stories/2010/08/29/2996391.htm?site=northwestwa§ion=news> accessed 12 January 2012.

ABC (2012) 'NSW Police order double-shock Taser' at <http://www.abc.net.au/news/2012-03-25/nsw-police-order-double-shock-taser/3911238> accessed 28 March 2012.

ABC Goldfields (2010) 'Trial triggers call for better Taser reports' at <http://www.abc.net.au/news/stories/2010/10/21/3044452.htm?site=goldfields> accessed 08 October 2011.

ABC Lateline (2009) *Calls for Taser Withdrawal: There are calls for tasers to be banned from use by WA police after a man holding fuel and a lighter burst into flames after being hit by a stun gun* Time: 23:03; Broadcast Date: Tuesday, 21st July 2009; Duration: 2 min., 1 sec:
<http://search.informit.com.au.ezproxy.lib.monash.edu.au/documentSummary;dn=TEX20092902481;res=TVNEWS> accessed 23 January 12.

ABC newsonline (2004) 'Stun guns used in Pal Is arrests' 29/11/04 at <http://www.abc.net.au/news/newsitems/200411/s1254087.htm> accessed 03 June 2011.

ABC News (2008) 'Lost Taser handed back to police' at <http://abc.gov.au/news/stories/2008/04/07/2209627.htm?site=news> accessed 06 December, 2010.

ABC News (2008b) 'Spray recall leaves police under-equipped: Oppn' 06/4/08 at <http://www.abc.net.au/news/2008-04-05/spray-recall-leaves-police-under-equipped-oppn/2394220> accessed May 3 2008.

ABC News (2009) 'Tasers rollout for SA Police', 17/11/09.

ABC Northern Tasmania (2009) 'Police push for Tasers' 28/09/09.

ABC PM (2010) 'NSW Police defend officers in Taser death' at <http://www.abc.net.au/pm/content/2010/s3030149.htm> accessed 11 October 2011.

- ABC Radio (2008) *The World Today*, 19/06/08
<http://www.abc.net.au/worldtoday/content/2008/s2603258.htm> accessed 20 June 2009.
- ACT Police (2007) 'Report on the use within ACT Policing of the Taser X26' at
http://www.jcs.act.gov.au/eLibrary/act_community_policing/Final%20Taser%20Report.pdf accessed 18 August 2010.
- American Civil Liberties Union (1993) *Pepper Spray: A magic bullet under scrutiny* A report by the American Civil Liberties Union of California, Fall 1993.
- (1995) *Pepper Spray Update: More Fatalities More Questions*, American Civil Liberties Union of California.
- Ackroyd C, Margolis K, Rosenhead J and Shallice T (1977) *The Technology of Political Control* Penguin: Harmondsworth.
- Adams C (2000) "Suspect Data: Arresting Research" in *Doing Research on Crime and Justice* R King and E Wincup (eds), Oxford University Press: Great Britain.
- Adams K and Jennison V (2007) "What we do not know about police use of Tasers?" *Policing: An International Journal of Police Strategies & Management* 30(3): 447-465.
- Ainsworth M (2012) 'Man dies after police chase in Dandenong' 10/01/12 *Herald Sun* at
<http://www.heraldsun.com.au/news/more-news/man-dies-after-police-chase-in-dandenong/story-fn7x8me2-1226240396285> accessed 22 January 2012.
- Alexander A (2000) 'Dirty Harry and Dirty Hands' in Coady, T, James, S, Miller & O'Keefe, M (eds) *Violence and Police Culture*, Melbourne University Press: Carlton South.
- Allas R and James S (1997) *Justice Gone Walkabout* Victorian Aboriginal Legal Service Cooperative Ltd: Melbourne.
- Allen T (1992) 'Discussion of "Effects of the Taser in Fatalities Involving Police Confrontation"' *Journal of Forensic Sciences* 37(4): 956-958.
- Alpert G, Smith M, Kaminski R, Fridell L, MacDonald J and Kubu B (2011) *Police use of force, Tasers and Other Less Lethal Weapons* National Institute of Justice: Washington at
<https://www.ncjrs.gov/pdffiles1/nij/232215.pdf>
- Amnesty International (1997) 'Police use of pepper spray – tantamount to torture' *Media Release*, 4 November 1997.
- (2007) 'Amnesty International releases brief on U.S. tasers' at
<http://action.amnesty.org.au/news/comments/4439/> accessed 07 March 2008.

- (2008) 'Safety concerns about Tasers & similar devices' at <http://action.amnesty.org.au/news/comments/14603/> accessed 10 November 2008.
- Anderson P (2008) 'Top cop urges OK for stun guns' *Herald/Sun* 31/1/08.
- Anglen R (2008) 'Judge rules for Taser in cause-of-death decisions' *The Arizona Republic*, 2/5/08 at <http://www.azcentral.com/news/articles/2008/05/02/20080502taser0503.html> accessed December 06 2008.
- Anglen R and Johnson A (2009) 'Taser International Inc. sues Canadian government' *The Arizona Republic*, 15/08/09 at <http://www.azcentral.com/business/articles/2009/08/15/20090815biz-tasers0816.html> accessed 06 October 2010.
- Australian Bureau of Statistics (2007) '4705.0 Population Distribution, Aboriginal and Torres Strait Islander Australians, 2006' at <http://www.abs.gov.au/ausstats/abs@.nsf/mf/4705.0> accessed 30 September 2011.
- Australian Bureau of Statistics (2010) *Australian Demographic Statistics, Dec 2009* Australian Bureau of Statistics: Canberra.
- Australian Federal Police (2011) 'Tasers for ACT's senior frontline police' *Media Release* 17/8/11 at <http://www.police.act.gov.au/media-centre/media-releases/act/2011/august/tasers-for-acts-senior-frontline-police.aspx> accessed 21 October 2011 accessed November 21 2011.
- Author unknown (2008) 'Police Union backs use of stun guns' at <http://www.abc.net.au/news/stories/2008/02/06/2155356.html> accessed March 27 2008.
- Author unknown (2008e) 'Give us Tasers or face work bans, say Victorian police' at <http://www.news.com.au/heraldsun/story/0,21985,24001511-2862,00.html> accessed July 12 2008.
- Author unknown (2009) 'Police investigate Taser use as victim sues' *The Australian* at <http://www.theaustralian.com.au/news/breaking-news/police-investigate-taser-use-as-victim-sues/story-fn3dxity-1225734583157> accessed 10 September 2010.
- Author unknown (2010) 'Police defend Taser use after second man catches fire' *WA Today* at <http://www.watoday.com.au/wa-news/police-defend-taser-use-after-second-man-catches-fire-20100202-nak5.html> accessed 5 October 2011.

- Aveni T (2000) *The Force Continuum Conundrum* Police Policy Studies Council at http://www.theppsc.org/Staff_Views/Aveni/The%20Force%20Continuum%20Conundrum.pdf accessed 24 August 2011.
- Azadani P, Tseng Z, Ermakov S, Marcus G and Lee B (2011) *Funding source and author affiliation in TASER research are strongly associated with a conclusion of device safety* *American Heart Journal*, Vol 162: Issue 3, September 2011: pp. 533-537.
- Baker D (2009) 'Police confirmation of use of force in Australia: "To be or not to be?"' *Crime, Law and Social Change* 52: 139-158.
- Baker J (2008) 'Police ask for stun guns to be issued on the front line' at <http://www.smh.com.au/articles/2008/01/01/1198949818192.html> accessed 27 March 2008.
- Bailey W (1996) 'Less-than-Lethal Weapons and Police-Citizen Killings in U.S. Urban Areas' *Crime and Delinquency* 42: (4).
- Barkham P (2011) "Tasers: 'If officers have a new toy, they like using it'" *The Guardian* 09/11/11.
- Barry S (2010) 'International forum takes aim at Taser use' ABC News at <http://www.abc.net.au/news/2010-10-11/international-forum-takes-aim-at-taser-use/2292430> accessed 5 October 2011.
- Bartlett L (2011) 'Liam Bartlett: Robert McLeod's fists make mockery of legal action' *PerthNow* 12 February, 2011 at <http://www.perthnow.com.au/news/western-australia/liam-bartlett-robert-mcleods-fists-make-mockery-of-legal-action/story-e6frg13u-1226005016567> accessed 08 October 2011.
- Barwick A (2008) 'Taser stun guns on the streets of Alice' at <http://www.abc.net.au/alicesprings/stories/s2159749.htm> accessed 28 February 2008.
- Baskin and Ironside (2011) 'Children as young as 13 capsicum-sprayed by cops, Queensland police document revealed' *The Courier Mail* 07/05/2011 at <http://www.news.com.au/national/children-as-young-as-13-capsicum-sprayed-by-cops-queensland-police-document-revealed/story-e6frfkvr-1226051460175> accessed 12 October 2011.
- Bayley D and Garolfalo J (1989) 'The Management of Violence by Police Patrol Officers' *Criminology* 7(1): 1-27.

- BBC News (2007) 'I've been Tasered 200 times' 16/05/07 at http://news.bbc.co.uk/go/pr/fr/-/2/hi/uk_news/6661617.stm accessed 26 September 2011.
- Becker H (1967) 'Whose side are we on?' *Social Problems* 14: 239-47.
- Bennet A (2007) 'Investigation dents taser death link' at <http://www.forster.yourguide.com.au/articles/1151819.html?src=topstories> accessed 28 February 2008.
- Bennet A (2008) 'Understand What You Are Asking For' *Police Association News* September 2008: 7.
- Berg B (1989) *Qualitative Research methods for the Social Sciences*, Allyn and Bacon: Boston.
- Berkeley City Council (2011) Council Minutes at [http://ci.berkeley.ca.us/uploadedFiles/Clerk/Level 3 General/Mutual%20Aid%20Agreements%20120211.pdf](http://ci.berkeley.ca.us/uploadedFiles/Clerk/Level%203%20General/Mutual%20Aid%20Agreements%20120211.pdf) accessed 12 December 2011.
- Bevilaqua S (2001) 'Stun guns hit crime' *Sunday Tasmanian*, 21/01/01.
- Bevin E (2004) 'Gun stuns rifleman' *Sunday Territorian* 07/01/04.
- Bibby P (2011) 'Police chief faces scrutiny over shooting probe' *The Sydney Morning Herald* 19/12/11 at <http://www.smh.com.au/nsw/police-chief-faces-scrutiny-over-shooting-probe-20111218-1p0vi.html> accessed 10 January 2011.
- Bier J (2003) 'Madera sues Taser maker: City, officer contend poor training for stun device contributed to gun death.' At <http://www.fresnobee.com/local/story/7208680p-8136998c.html> accessed 06 March 2008.
- Biles D (2010) 'Rapid federal response could allay stun gun fears' *The Australian* 08/10/10
- Bird G (1992) 'Policing Multicultural Australia' in P Moir & H Eijkman (eds) *Policing Australia: Old Issues, New Perspectives*, Macmillan: South Melbourne.
- Bitá N (2010) 'Police work on national Taser guidelines after Sydney death' at <http://www.theaustralian.com.au/news/nation/police-work-on-national-taser-guidelines-after-sydney-death/story-e6frg6nf-1225935121569> accessed 05/10/11.
- Bittner E (1990) *Aspects of Police Work*, Boston, Northeastern University Press.
- Blackler J (2000) "Historical Influences on Australian Policing" in T Coady, S James, S Miller & M O'Keefe (eds) *Violence and Police Culture*, Melbourne, University Press: Carlton South.

- Bobb M, Barge M & Naguib C (2007) *'A Bad Night at Powell Library: The Events of November 14, 2006'* Police Assessment Resource Center: Los Angeles.
- Boogs M (2001) 'Police rule out stun-gun option' *Canberra Times* 14/12/01.
- British Columbia (2009) 'Restoring public confidence: Restricting the use of conducted energy weapons' *Braidwood Commission on Conducted Energy Weapon Use*, Canada.
- Brogan B (2007) 'Gun crime on the rise as number of armed police falls' *Mail Online* at <http://www.dailymail.co.uk/news/article-504499/Gun-crime-rise-number-armed-police-falls.html> accessed 29 April 2010.
- Brooks M (2001) 'Killing Me Softly (use of non-lethal weapons)' *New Scientist* 171.2303: 10.
- Burgess M (2009) 'Tasers- How Many More Trials Before We Can Agree On Their Benefit?' *Police Association News*: March, 2009.
- Burton F and Carlen P (1979) *Official Discourse; On Discourse Analysis, Government Publications, Ideology and the State* Routledge and Kegan Paul: London.
- Buttle J (2007) 'A Constructive Critique of the Officer Safety Programme Used in England and Wales' *Policing and Society: An International Journal of Research and Policy* 17(2): 164-181.
- Byrne F, Coster A and Firkin K (2009) 'Adam has a shock' *Herald Sun* 3/7/09.
- Caggiano R (2009) 'Asystole' at <http://emedicine.medscape.com/article/757257-overview> accessed 27 November 2009.
- Cannon L (1993) 'Prosecution Rests Case in Rodney King Beating Trial' at <http://tech.mit.edu/V113/N14/king.14w.html> accessed 04 December 2009.
- Carlton B (2007) *Imprisoning Resistance – Life and Death in an Australian Supermax*, Institute of Criminology Press, Sydney.
- Carrington K (1998) *Who Killed Leigh Leigh?: a story of shame and mateship in an Australian town* Random House: NSW.
- Carter P and Kennedy L (2004) 'Stun gun trial urged after death' *The Sydney Morning Herald* 04/12/04.
- Carty L (2009) 'NSW police issue: \$10 million in Taser stun guns' *Brisbane Times* 14/06/09.
- CBC (2008) 'Stunning Developments' at <http://www.cbc.ca/news/background/tasers/> accessed 20 September 2008

- CBC News (2009) 'New Taser policy more restrictive: RCMP head says' at <http://www.cbc.ca/news/canada/story/2009/04/21/taser-rcmp-policy.html> accessed 21 January 2012.
- Chappell D (2010) 'From sorcery to stun guns and suicide: the eclectic and global challenges of policing the mentally ill' *Police Practice and Research: An International Journal* 11 (4): 289-300.
- Chappell D and Graham L (1985) *Police Use of Deadly Force: Canadian Perspectives*, University of Toronto: Toronto.
- Chan T, Vilke G, Clausen J, Clark R, Schmidt P, Snowden, T and Neuman T (2001) *Pepper Spray's Effects on a Suspect's Ability to Breathe: Research in Brief*, National Institute of Justice: Washington D.C.
- Chan J (2009) 'Culture' in A. Wakefield and J. Fleming (eds.) *The Sage Dictionary of Policing*, Sage, London: pp. 72-74.
- Charlotte Business Journal (2011) '\$10 million verdict in Taser case' 20/07/11 at <http://www.bizjournals.com/charlotte/news/2011/07/20/10-million-verdict-in-taser-case.html> accessed 14 September 2011.
- Chevigny P (1969) *Police Power: Abuses in New York City*, Pantheon Books: New York.
- (1995) *Edge of the Knife: Police Violence in the Americas*, The New Press: New York.
- Chrisite N (2000) *Crime Control as Industry*, 3rd edition, Routledge: New York.
- Clack P (2001) 'AFP to Adopt and Wait and See Stand on Stun Gun Use' *The Canberra Times*, 14/01/01.
- Clarke C and Thomson C (2008) 'Commissioner defends police taser use' *WA Today* at <http://www.watoday.com.au/wa-news/commissioner-defends-police-taser-use-20081120-6c4s.html?page=-1> accessed 7 October 2011.
- Clery, D (2000) 'Stun Guns Stop Thieves' *The West Australian* 09/09/00.
- Coady T, James S, Miller S and O'Keefe M (2000) *Violence and Police Culture*, Melbourne University Press: Carlton South.
- Cogden K (2001) 'Police want hi-tech guns to fight crime' *Herald-Sun*, 21/05/01.
- Cohen S (1972) *Folk Devils and Moral Panics* MacGibbon and Kee: London.
- Cohen S (1985) *Visions of Social Control*, Polity Press: Cambridge.

- Cooper (2008) 'Indigenous at risk from Taser rollout' *ABC Science* at <http://www.abc.net.au/science/articles/2008/04/29/2216517.htm> accessed 06 Dec 2010.
- Corbett R and Marx G (1991) 'Critique: No soul in the new machine: Technofallacies in the electronic monitoring movement' *Justice Quarterly* 8(3): 399-414.
- Coroner's Court (2001) *Inquest into the death of Eduardo Concepcione* [2001] NTMC 25: Darwin
- Coroner's Court (2010) *Inquest into the death of Gottlieb Rubuntja* [2010] NTMC 048: Darwin.
- Corruption and Crime Commission (2010) *Use of Taser® Weapons by Western Australia Police*, Crime and Corruption Commission: Western Australia.
- (2011) *Transcript of proceedings at Perth on Tuesday, 19th April 2011, at 1.37 p,m, WA Attorney General* at <http://www.ccc.wa.gov.au/InvestigationAndHearings/Transcripts/Mr%20K%20Spratt%20%20the%20WA%20Police%20and%20Dept%20of%20Correcti1/Mr%20K%20Spratt%20%20the%20WA%20Police%20and%20the%20Dept%20of%20Corrective%20Service%20-%20PM%20Session%2019%20APR%202011.pdf> accessed 08 October 2011.
- Cox N (2009) 'Police consider civil action on Matt Butcher verdict' *PerthNow* at <http://www.perthnow.com.au/commissioner-astounded/story-fna7dq6e-1111119121719> accessed 09 October 2011.
- (2011) 'Standing strong through tears and joy' *PerthNow* at <http://www.perthnow.com.au/standing-strong-through-tears-and-joy/story-fn6mh6b5-1226077566394> accessed 08 October 2011 .
- Cox N and Cordingly G (2012) 'I can never work again – Robert McLeod' *The Sunday Times* 17/03/12 at <http://www.perthnow.com.au/news/western-australia/i-can-never-work-again-robert-mcleod/story-e6frg143-1226302574722> accessed 19 March 2012.
- Crime and Misconduct Commission (2005) *OC Spray: Oleoresin capsicum (OC) spray use by Queensland Police* Crime and Misconduct Commission: Brisbane.
- Crime and Misconduct Commission (2008) "Facts about Tasers" at <http://www.cmc.qld.gov.au/data/portal/00000005/content/10539001201848677972.pdf> accessed 03 March 2008.
- (2009) 'Southbank Taser incident prompts CMC concerns' Media release, 04/03/09 at <http://www.cmc.qld.gov.au/news-and-media/media-releases/media-releases-2014-6->

[august-2008-2013-23-june-2009/media-release-04.03.2009-southbank-taser-incident-prompts-cmc-concerns.asp-pgid-10814-cid-5201-id-1230](http://www.cmc.qld.gov.au/asp/index.asp?pgid=10743) accessed 18 April 2010.

(2009a) *Review of Taser Policy, Training, Monitoring and Review Practices* CMC and Queensland Police Service.

(2011) *Evaluating Taser reforms: A Review of Queensland Police Service policy and practice* April 2011 at <http://www.cmc.qld.gov.au/asp/index.asp?pgid=10743>.

Cronin J and Ederheimer J (2006) *Conducted Energy Devices: Development of Standards for Consistency and Guidance*. U.S. Department of Justice Office of Community Oriented Policing Services and Police Executive Research Forum, Washington, D.C.

Cunneen C (1994) 'Enforcing Genocide? Aboriginal Young People and the Police' in R White and C Alder (eds) *The Police and Young People in Australia* Cambridge University Press: Melbourne.

(2001) *Conflict, Politics and Crime: Aboriginal Communities and the Police*, Allen and Unwin: New South Wales.

(2009) 'Indigenous Incarceration: The Violence of Colonial Law and Justice' in P Scraton and J McCulloch (eds) *The Violence of Incarceration* Routledge: New York.

Daigle E (2010) *Taser: Training Bulletin 15.0 – Is there a Reason for Concern?* FBI Law Enforcement Executive Development Association at www.halloran-sage.com/Knowledge?articleDetail.aspx?storyid=5760 accessed 09 August 2011.

Dalton V (1998) 'Australian Deaths in Custody and Custody-related Police Operations, 1997' *Trends and Issues in Crime and Criminal Justice* No. 80, Australian Institute of Criminology: Canberra.

Davison N (2006) *The Early History of Non-lethal Weapons* Occasional Paper No 1, Bradford Non-lethal Weapons Research Project, University of Bradford: UK.

Dawtry Z (2011) 'Police announce broad review of OC spray' *The Examiner* 01/02/11 at <http://www.examiner.com.au/news/local/news/crime-and-law/police-announce-broad-review-of-oc-spray-use/2062765.aspx> accessed 20 November 2011.

Dean M (2007) 'Rosters remain running sore for front-line officers', *WA Police News*, August.

Denzin N (1978) *Sociological Methods: A Sourcebook* 2nd edn. McGrawHill: New York.

Dixon D (1997) *Law in Policing: Legal Regulation and Police Practices* Clarendon Press: Oxford.

- Doubet M (1997) *The Implications of OC Sprays* PPCT Management Systems, Inc: Illinois.
- Downs R (2007) "Less lethal weapons: a technologist's perspective" *Policing: An International Journal of Police Strategies & Management* 30(3): 341-357.
- Douez S (2001) 'Police Force Looks At New Weapon, And It's a Stunner' *The Age*, 10/01/01.
- Dupont B (1999) 'Policing in the information age: technological errors of the past in perspective' a paper presented at the *History of Crime, Policing and Punishment Conference*, Australian Institute of Criminology and Charles Sturt University: Canberra.
- Duffy M (2002) 'This gun's a stunner but not for criminals' *The Adelaide Advertiser* 3/07/03.
- Dyer P (2003) 'Electric guns shock critics' *Northern Territory News* 24/02/2003.
- Edinger J & Boulter S (2011) 'Police use of TASERS in the restraint and transport of persons with a mental illness' *Journal of Law and Medicine* 18: 589-593.
- Edwards S, Granfield J and Onnen J (1997) *Evaluation of Pepper Spray: Research In Brief*, National Institute of Justice: Washington D.C.
- Edwards C (1999) 'Democratic Control of Police: how 19th century political systems determine modern policing structures' a paper presented at the *History of Crime, Policing and Punishment Conference*, Australian Institute of Criminology and Charles Sturt University: Canberra.
- Egan C (2009) 'McLeod family breaks silence over controversial acquittal' *Sunday Times* 21 March 2009 at <http://www.perthnow.com.au/mcleods-we-are-not-thugs/story-fna7dq6e-1225697818809> accessed 08 September 2011.
- Eliot L (2010) 'Stun guns for all front-line police' *The West Australian* 28/6/2010.
- Ericson R and Haggerty K (1997) *Policing the Risk Society* University of Toronto Press: Toronto.
- Ericson R and Shearing C (1986) 'The Scientification of Policing' in G. Bohme and N. Stehr *The Knowledge Society*, D. Reidel Publishing Company: Holland.
- Farouque F (2009) 'Slain teen's mother in new plea for stun gun use' *The Age* 20/04/09 at <http://www.theage.com.au/national/slain-teens-mother-in-new-plea-for-stun-gun-use-20090419-abfa.html> accessed 06 May 2010.

- Feakin T (2006) "Non-lethal Weapons: The case 'for' and 'against' regarding children" in Charles W. Greenbaum, Philip Veerman, Naomi Bacon-Shnoor (eds) *Protection of Children During Armed Political Conflict: A Multidisciplinary Perspective*, Intersentia: Oxford.
- Federation of Community Legal Centres (2010) *Taser Trap – is Victoria falling for it?* At http://www.fclc.org.au/cb_pages/taser_trap.php accessed 09 October 2011.
- Federation of Community Legal Centres (2011) 'Preventing Avoidable Police Shootings' at http://www.fclc.org.au/cb_pages/preventing_avoidable_police_shootings.php accessed 10 December 2011.
- Fenech K (2010) 'Pregnant woman "Tasered up to eight times" *WAToday* at <http://www.watoday.com.au/wa-news/pregnant-woman-tasered-up-to-eight-times-20101005-165e8.html> accessed 07 October 2011.
- Finnane M (1994) *Police and Government: Histories of Policing in Australia*, Oxford University Press: Melbourne.
- Fitzgerald G (1989) *Report of the Commission of Possible Illegal Activities and Associated Police Misconduct*, Queensland Government Printer: Brisbane.
- Flint, J (2000) 'Air Taser' *The West Australian* 23/02/2000.
- Flyvbjerg B (2001) *Making Social Science Matter: Why Social Inquiry Fails and How It Can Succeed Again* Cambridge University Press: London.
- (2006) 'Five Misunderstandings About Case-Study Research' *Qualitative Inquiry* 12 (2): 219-245.
- (2011) 'Case Study' in Norman K. Denzin and Yvonna S. Lincoln (eds.) *The Sage Handbook of Qualitative Research* (4th edition), Thousand Oaks: California.
- Franklin D (2003) 'Police like stun guns' *Sunday Times(Perth)*, 09/03/2003.
- Freckelton I (2000) "Legal Regulation of the Police Culture of Violence: Rhetoric, Remedies and Redress" in *Violence and Police Culture*, T. Coady, S. James, S. Miller and M. O'Keefe (eds), Melbourne University Press: Carlton South.
- Fridell L, Ijames S and Serkow M (2011) 'Taking the Straw Man to the ground: Arguments in Support of the Linear Use-of-Force Continuum' *Police Chief* 28/12/11.
- Fyfe J (1981) "Observations on Police Deadly Force", *Crime and Delinquency*, 27 (3): 376-389.
- Geller W and H Toch Eds (1996) *Police Violence - Understanding and Controlling Police Abuse of Force*, Yale University Press: New Haven.

- Gerritsen T (2009) 'Local police to be given tasers in extended trial' *ABC South East SA*, 21/10/2009.
- Gilbert N (1995) *Researching Social Life* Sage: London.
- Gillham B (2000) *Case Study Research Methods* Continuum: London.
- Goldman A (2008) 'Cops raise Taser safety claims' *Las Vegas Sun* 23/11/08 at <http://www.lasvegassun.com/news/2008/nov/23/cops-raise-taser-safety-claims/> accessed 26 September 2011.
- Goldstein (1977) *Policing a Free Society* Ballinger: Cambridge, MA.
- Granfield J, Onnen J and Petty, C (1994) 'Pepper Spray and In-Custody Deaths' *The ASLET Journal* (May/June): 9-15.
- Gray S (2010) 'Police made terrible error of judgement, Andrew Borden inquest hears' *The Courier Mail* 16/7/10 at <http://www.couriermail.com.au/news/queensland/police-made-terrible-error-of-judgment-andrew-borden-inquest-hears/story-e6freoof-1225892919692> accessed 11 October 2011.
- Green (2010) 'No Tasers, no rise in Rockford police injuries' *Rockford Register Star* 31/12/10.
- Greenwood D and Levin M (2007) *Introduction to Action Research* 2nd ed, Sage Publications: United States
- Griffith G (2009) 'Tasers – developments, findings and recommendations' E-Brief No 9/09: NSW Parliamentary Library Research Service.
- Grimshaw R and Jefferson T (1987) *Interpreting Policework: Policy and Practice in Forms of Beat Policing* Allen & Unwin: Sydney.
- Guest D (2009) 'Man set alight after being hit with Taser' *The Australian* 21/07/09.
- Guest D (2010) 'Taser used 'inappropriately': Mark Lewis Conway inquest' *The Australian* 10/03/10.
- Gullan S and Walker A (2008) 'Police use capsicum spray against fans at Australian Open' at <http://www.news.com.au/story/0,23599,23060430-2,00.html> accessed 10 September 2008.
- Hagan F (2006) *Research Methods in Criminal Justice and Criminology* 7th Ed, Allyn and Bacon: Boston.

- Haggerty K and Ericson R (1999) 'The Militarization of Policing in the Information Age' *Journal of Political and Military Sociology*, 27 (Winter), 233-55.
- Haldane R (1986) *The People's Force: A History of the Victoria Police*, Melbourne University Press: Carlton.
- Hambling D (2006) 'Say Hello the Goodbye Weapon' *Wired* at <http://www.wired.com/science/discoveries/news/2006/12/72134?currentPage=all> accessed 21 April 2011.
- Harding R (1970) *Police Killings in Australia*, Penguin: Ringwood.
- Harding R (1975) "Changing Patterns of the Use of Lethal Force by Police in Australia" *Australian and New Zealand Journal of Criminology*, 8 (2): 125-136.
- Harris M (2011) 'Police criticized over use of spray on children' *Herald Sun* 07/03/2011 at <http://www.heraldsun.com.au/news/police-criticised-over-use-of-capsicum-spray-on-children/story-e6frf7jo-1226016823304> accessed 10 October 2011.
- Hawkins G and Ward (1970) "Armed and Disarmed Police: Police Firearms Policy and Levels of Violence" *Journal of Research in Crime and Delinquency* 7(2) pp 188-197.
- Heart Foundation (2008) 'Cardiovascular Disease Statistics' at http://www.heartfoundation.org.au/Heart_Information/Statistics.htm accessed 20 August 2008.
- Heart Foundation (2011) 'Aboriginal health' at <http://www.heartfoundation.org.au/information-for-professionals/aboriginal-health/Pages/default.aspx> accessed 30 September 2011.
- Heinmann Australian Dictionary (1981) *2nd Edition* Heinmann Educational Australia: Richmond.
- Hepburn J, Griffin, M and Petrocelli, M (1997) *Safety and Control in a County Jail* Arizona State University: Tempe.
- Hillyard P and Percy-Smith J (1988) *The Coercive State: The Decline of Democracy in Britain* Fontana: London.
- Ho J, Dawes D, Reardon R, Lapine A, Dolan B, Lundin E and Miner J (2008) 'Echocardiographic Evaluation of a TASER-X26 Application in the Ideal Human Cardiac Axis' *Academic Emergency Medicine*, 15:838-844.
- Hogan M (1988) "Police use of deadly force – when is it right to pull the trigger?", in *Death in the Hands of the State*, Redfern Legal Centre Publishing: Redfern.

- Holder E, Robinson L and Laub J (2011) *Study of deaths following Electro Muscular Disruption*. Special Report, National Institute of Justice: NCJ 233432.
- Hoyle C (2000) "Being 'A Nosy Bloody Cow': Ethical and Methodological Issues in Researching Domestic Violence" in *Doing Research on Crime and Justice* R King and E Wincup (eds), Oxford University Press: Great Britain.
- Hughes M (2011) 'London riots: Mark Duggan died from single gunshot to chest, post mortem reveals' *The Telegraph* 09/08/11 at <http://www.telegraph.co.uk/news/uknews/crime/8690855/London-riots-Mark-Duggan-died-from-single-gunshot-to-chest-post-mortem-reveals.html> accessed 10 October 2011.
- Hunt N (2008) 'Police to trial stun guns' *AdelaideNow.com* 31/05/08 at <http://www.adelaidenow.com.au/news/south-australia/police-to-trial-stun-guns/story-e6frea83-111116502082> accessed 06 June 2011.
- Hurst D (2009) 'Taser rollout halted for review' *The Brisbane Times* 15/06/09 at <http://www.brisbanetimes.com.au/queensland/taser-rollout-halted-for-review-20090615-c8bb.html> accessed 23 January 2012.
- Ireland I (2002) 'Capsicum Spray-The Record to Date' *Research Note 19 2001-2002* Commonwealth of Australia.
- Ironside R (2010) 'Antonio Carmelo Galeano's face turned black after he was tasered 28 times says witness' *The Courier Mail* 10/06/2010 at <http://www.couriermail.com.au/news/queensland/taser-victim-antonio-carmelo-galeanos-face-turned-black-witness-tells-hearing/story-e6freoof-1225878144804> accessed 14 October 2011.
- James A (2003) 'Stunning claims for new Taser' *The West Australian*, 19/07/03.
- James C (2007) 'Capsicum spray death won't deter police' *The Advertiser*, 22/08/07.
- Jefferson T (1990) *The Case Against Paramilitary Policing*, Open University Press: Philadelphia.
- Johnston C (2008) 'Police mace Greek fans at the tennis' at <http://www.theage.com.au/news/tennis/police-mace-greek-fans-at-the-tennis/2008/01/15/1200159455316.html> accessed 23 October 2009.
- Johnston J (2009) 'Mate recalls Taser horror' *Townsville Bulletin*, 19/06/09.
- Johnston E (1991) *National Report, Royal Commission into Aboriginal deaths in Custody*, 5 vols. Australian Government Publishing Service, Canberra.

- Jones C (2010) 'Police cleared over Tasered man's death' *The West Australian* 27/04/10.
- (2010a) 'Cops in Taser case escape charges' *The West Australian* 24/12/11,
- Jones I (1995) *Ned Kelly: A Short Life* Lothian: Port Melbourne.
- Kealing B (2004) 'Lawyer Targets Taser Policies With 10 Lawsuits' *Orlando News* 19/11/04.
- Kellet C (2008) 'Cops to get tasers for Christmas' *Brisbane Times* 02/10/08.
- (2009) 'Man dies after being shot with Taser in Townsville' *The Brisbane Times*, 12/6/09 at <http://www.brisbanetimes.com.au/queensland/man-dies-after-being-shot-with-taser-in-townsville-20090612-c5cx.html> accessed 14 October 2011.
- Kelley D (1990) 'Inventor Had Warned Taser Unsafe for Cardiac Patients Weapons: Coroners in Los Angeles and Santa Clara counties say the stun gun contributed to or caused three deaths. Two of the victims had heart disease.' *Los Angeles Times* at http://articles.latimes.com/1990-03-18/local/me-1015_1_stun-guns accessed 12 November 2009.
- Kennedy H (2000) 'Police May Get US Stun Guns' *The Herald Sun*, 11/03/00.
- (200b) 'How a Hot Shot Feels' *The Herald Sun*, 11/03/2000.
- Kesic D, Thomas S and Ogloff J (2009) 'Mental illness among police fatalities in Victoria 1982-2007: case linkage study' *Australia and New Zealand Journal of Psychiatry* 44: 463-468.
- Killian J (2007) 'Nine arrested in protest of Iraq decision' at <http://www.newsrecord.com/apps/pbcs.dll/article?AID=/20070112/NEWSREC0101/70111024> accessed 10 March 2008.
- Kleinig J (2007) 'Ethical Constraints on Taser Use by Police' *Policing* 1(3): 284-292.
- Klockars C (1980) 'The Dirty Harry Problem' *Annals of the American Academy of Political and Social Science* 452 (November): 33-47.
- Klockars C (1985) *The Idea of Police* Sage: New York
- Klockars C (1996) 'A Theory of Excessive Force and Its Control', in *Police Violence: Understanding and Controlling Police Use of Force*. W. Geller and H. Toch (eds) Yale University Press: New Haven.

- Knowles G (2010) 'Lockup man tasered three times in one week' *The West Australian* 18/10/10 at <http://au.news.yahoo.com/thewest/a/-/breaking/8154707/watchhouse-man-tasered-twice-before/> accessed 13 October 2011.
- Kobler A (1975) 'Police Homicide in a Democracy' *Journal of Social Issues*, 3 (1): 163.
- Kornblum R and Reddy S (1991) 'Effects of the Taser in Fatalities Involving Police Confrontation' *Journal of Forensic Sciences* 36 (2): 434-448.
- Koscove E (1985) 'The Taser Weapon: A New Emergency Medicine Problem' *Annals of Emergency Medicine* 14: 109-112.
- Kraska P and Kappeler V (1997) 'Militarizing American Police: The Rise and Normalization of Paramilitary Units' *Social Problems* 44: 1-18.
- Kraska P (2007) 'Militarization and Policing-Its Relevance to 21st century Policing' *Policing* 1(4):301-13.
- Kreeger J (2006) 'Tasers: Deadly Force?' *Final Report of the Miami-Dade County Grand Jury* Spring Term A.D. 2005.
- Kroll M (2007) *Potential Autopsy Errors With In-Custody-Deaths: The Ronald Hasse Case Study* ©2007 TASER International at <http://www.ipicd.com/resources/articles.html> accessed 10 April 2012.
- (2008) *Science and Medicine of TASER® Electronic Control Devices* Crystal Bay, MN.
- Kroll M and Ho J (eds) (2009) *TASER® Conducted Electrical Weapons: Physiology, Pathology and Law* Springer: New York.
- LaFave W (1965) *Arrest* F Remington (ed) Little, Brown: Boston.
- Lalonde M (2007) 'Taser protest in Montreal' at <http://www.canada.com/topics/news/world/story.html?id=997e20d2-4e98-4311-ab6d-372834021e43&k=9552> accessed 9/10/08.
- Lam M and Videnieks (2004) 'Give police stun guns, says union' *The West Australian*, 20/12/04.
- Lampathakis P (2010) 'WA Police lose Taser case, face \$20k costs' *PerthNow* at <http://www.perthnow.com.au/news/wa-police-lose-taser-case-face-20k-costs/story-e6fgr12c-1225840245997> accessed 10/10/11 accessed 02 Jan 2011.
- Lampathakis P (2011) 'Police pepper-spraying WA kids, some as young as 11' *The Sunday Times* 19/03/11 at <http://www.perthnow.com.au/news/western->

[australia/police-pepper-spraying-wa-kids-some-as-young-as-11/story-e6frg13u-1226024568276](http://www.abc.net.au/news/2011-11-19/australia-police-pepper-spraying-wa-kids-some-as-young-as-11/story-e6frg13u-1226024568276) accessed 19 November 2011.

Langton J (2007) 'The dark lure of 'pain compliance' The Star 01/12/08.

Law Institute of Victoria (2004) 'Lawyers warn against Taser guns' Media Release at http://www.liv.asn.au/media/releases/20041112_taser.html accessed April 2006.

Layder D (1998) *Sociological Practice: Linking Theory and Social Research*, Sage Publications: Great Britain.

Lee B, Vittinghoff E, Whiteman D, Park M, Lau L and Tseng Z (2009) 'Relation of Taser (Electrical Stun Gun) Deployment to Increase in In-Custody Sudden Deaths' *The American Journal of Cardiology* 103: 877-80.

Leonard J (2010) 'Former BART officer convicted of involuntary manslaughter' *LA Times* 8/7/10 at <http://articles.latimes.com/2010/jul/08/local/la-me-bart-verdict-20100709> accessed 11 October 2011.

Lewer N and Davison N (2006) 'Electrical stun weapons: alternative to lethal force or a compliance tool?' at <http://www.bradford.ac.uk/acad/nlw/> accessed 07 March 2008.

Ligaya A (2007) 'Is 'excited delirium' at the root of many Taser deaths?' CBC News at <http://www.cbc.ca/news/background/tasers/excited-delirium.html> accessed 16 July 2008.

Lillebuen S (2012) 'Five dead this summer in Vic police chases' 21/01/12 *Ninemsn* at <http://news.ninemsn.com.au/national/8406607/two-die-in-car-crash-in-victoria> accessed 22 January 2012.

Los Angeles County Sheriff's department (2010) 'August 20, 2010 New Device Unveiled Intended to Stop or Lessen Inmate Assaults: Active Intervention Device' at http://sheriff.lacounty.gov/wps/portal/lasd/media/detail/?WCM_GLOBAL_CONTEXT=/lasd+content/lasd+site/home/home+top+stories/aid+unveiled accessed 22 January 2012.

Magistrates Court (2000) *Transcript of Proceedings in the matter of an Inquest into the Cause and Circumstances Surrounding the Death of Benjamin Paul Basford* No COR 327 of 2000: Brisbane.

Manning P (1997) *Police work: the social organization of policing*, Waveland Press: Prospect Heights.

- (2009) 'Technology' in A. Wakefield and J. Flemming *The SAGE Dictionary of Policing* SAGE Publications Ltd: London.
- Marriner C (2009) 'An island death' *The Age*, 19/06/09.
- Marx G (2007) 'The Engineering of Social Control: Policing and Technology' *Policing*, 1(1): 46-56.
- May T (2001) *Social Research: Issues, methods and process* (3rd ed) Open University Press: United Kingdom.
- Meehan T (2008) 'Stunning haste on equipment' at <http://www.news.com.au/couriermail/story/0,23739,23368907-27197,00.html> accessed 13 March 2008.
- Merkel R (2008) 'The increasingly all-purpose capsicum spray' at <http://larvatusprodeo.net/2008/01/29/the-increasingly-all-purpose-capsicum-spray/> accessed 08 August 2008.
- Meyer G (1991) 'Nonlethal Weapons Versus Conventional Police Tactics: The Los Angeles Police Department Experience' Unpublished Master's Thesis: California State University.
- Meyer G (2008) 'Non-Lethal Weapons: the Promise and the Challenge' *Law Enforcement Executive Forum Journal July*: 41-53.
- McBride D and Tedder N (2005) *Efficacy and Safety of Electrical Stun Devices* Potomac Institute for Policy Studies: Arlington, Va.
- McCulloch J (1990) 'Police Shootings and Community Relations' in *The Police and the Community in the 1990s - Proceedings of a Conference held 23-25 October 1990*, Australian Institute of Criminology: Canberra.
- (1992) 'Heroes and martyrs in the 'war' on crime?' *Alternative Law Journal* 17 (3): 135-137.
- (1996) 'Blue Murder: Press Coverage of Fatal Police Shootings in Victoria' *Australian and New Zealand Journal of Criminology* Vol 29 No 2: 102- 120.
- (1999) 'Keeping the Peace or Keeping People Down: Policing Victoria' a paper presented at the *History of Crime, Policing and Punishment Conference*, Australian Institute of Criminology and Charles Sturt University: Canberra.
- (2000) 'Capsicum Spray: Safe Alternative or Dangerous Chemical Weapon?' *Journal of Law and Medicine* 7: 311-323.

- McCulloch J (2001) *Blue Army: Paramilitary Policing in Australia*, Melbourne University Press: Carlton South.
- McIntyre D (1967) *Law Enforcement in the Metropolis* American Bar Foundation: Chicago.
- McKenna M (2008) 'CMC hits police report on taser trial' *The Australian*, 17/12/08 at <http://www.theaustralian.com.au/news/cmc-hits-police-report-on-taser-trial/story-e6frg600-1111118052649> accessed 10 October 2011.
- (2008b) 'Queensland teenager recalls pain inflicted by police Taser' *The Australian*, 21/11/08 at <http://www.theaustralian.com.au/news/investigations/teenager-recalls-stun-by-police-taser/story-fn6tcs23-1111118098148> accessed 09 October 2011.
- (2009) 'Shocked to the core' *The Australian* 23/06/09 at <http://www.theaustralian.com.au/news/investigations/shocked-to-the-core/story-fn6tcs23-1225739223911> .accessed 14 October 2011.
- Michael P and Ironside R (2009) 'Tasers to stay after man dies in Townsville' *The Courier Mail* 13/06/09 at <http://www.couriermail.com.au/tasers-to-stay-after-man-dies-in-townsville/story-fna7dq6e-1225734246581> accessed 14 October 2011.
- Miller D (2011) 'Teen's family wins \$10 million Taser verdict' *Charlotte Observer*, 20/07/11.
- Miller J (2000) *Shoot and Demonise: the death of Roni Levi* Hardie Grant Books: South Yarra.
- Miller N (2010) 'Taser didn't stop man who killed deputy' *The Tribune* at <http://www.greeleytribune.com/article/20101125/NEWS/711259990/1005&parentpofile=1001> accessed 06 December 2010.
- Miller P (2009) 'Police lose their way on Tasers: Overland' *The Age* at <http://www.theage.com.au/national/police-lose-their-way-on-tasers-overland-20090515-b65d.html> accessed 25 September 2012.
- Minus J (2010) 'Police defend use of Tasers and say the stun gun saved officers from knife wielding man' *The Australian* 5/10/10 at <http://www.theaustralian.com.au/news/nation/police-defend-use-of-tasers-and-say-the-stun-gun-saved-officers-from-knife-wielding-man/story-e6frg6nf-1225934346783> accessed 23 October 2011.
- Moor K (2008) 'Police want more firepower' at <http://www.news.com.au/heraldsun/story/0,21985,23514409-5014265,00.html> accessed May 3 2008.

- Msnbc.com (2011) 'Ex-BART officer, Johannes Mehserle released after 11 months in prison' 13/6/11 msnbc.com at http://www.msnbc.msn.com/id/43376251/ns/us_news-crime_and_courts/t/ex-bart-officer-johannes-mehserle-released-after-months-prison/ accessed 11 October 2011.
- Muir W (1977) *Police: Streetcorner Politicians*, University of Chicago Press: Chicago.
- Mukasey M, Sedgwick J and Hagy, D (2008) *Study of Deaths Following Electro Muscular Disruption: Interim Report*, National Institute of Justice: Washington D.C.
- Nasiripour S (2008) 'Zapping Taser' *Centre for Investigative Reporting* 01/12/08 at <http://centreforinvestigativereporting.org/tags/heston> accessed 11 November 2010.
- National Institute of Justice (2009) *The use-of-force continuum*, Office of Justice Programs website at <http://www.nij.gov/topics/law-enforcement/officer-safety/use-of-force/continuum.htm> accessed 24 August 11.
- National Nine News (2008) *Police Shooting Death Renews Calls For Tasers: The death of Tyler Cassidy, the 15-year-old who was shot to death by police after he threatened them with a knife, has renewed calls for Victoria Police to deploy taser stun guns to give officers an alternative method to subduing dangerous suspects.* Time: 18:02; Broadcast Date: Friday, 12th December 2008; Duration: 1 min., 25 sec. at: <http://search.informit.com.au.ezproxy.lib.monash.edu.au/documentSummary;dn=TEV20084901726;res=TVNEWS> accessed 21 January 2012.
- National Police Research Centre (1995) *National guidelines compendium: police use of lethal force, deployment of police in high risk situations, deployment of police negotiators* Payneham: South Australia.
- NBC News Channel (2008) 'Deputy tasered during horseplay' at <http://www.wcbd.com/midatlantic/cbd/search.apx.-content-articles-CBD-2008-02-25-0023.html> accessed 07 March 2008.
- Neal D (1991) *The Rule of Law in a Penal Colony: Law and power in early New South Wales*, Cambridge University Press: Melbourne.
- Needham K (2011) 'Police use tear-gas to quell riot on Christmas Island' *The Age* 21/07/11.
- New South Wales Coroner (2011) *Inquest into the death of Adam Quddus Salter* File No: 3333/09: Glebe.
- New South Wales Ombudsman (2008) *The use of Taser weapons by New South Wales Police Force: A special report to Parliament under section 31 of the Ombudsman Act 1974*, New South Wales Ombudsman: Sydney.

- New York Civil Liberties Union (2011) *Taking Tasers Seriously: The Need for Better Regulation of Stun Guns in New York* New York Civil Liberties Union: New York.
- New Zealand Police (2008) *Operational Evaluation of the New Zealand Taser Trial* New Zealand Police: Wellington.
- Nicholson D (2008) 'Use of force models: Comprehension or confusion?' *Response Australia*, August: Issue 5: 8-15 at <http://www.responseaustralia.net/issues/Issue05.pdf> accessed 22 August 11.
- Ninemsn (2009) 'Family 'disgusted' as police attackers acquitted' *Ninemsn* 13 March 2009 at <http://news.ninemsn.com.au/national/770888/family-disgusted-as-police-attackers-acquitted> accessed 08 October 11.
- Northern Territory Police (2009) *Review of TASER within the Northern Territory Police Force* (unpublished).
- O'Brien A (2011) 'Kevin Spratt who was tasered 41 times by WA police wins appeal against conviction of obstructing justice' *The Australian* 24/02/11 at <http://www.theaustralian.com.au/news/nation/kevin-spratt-who-was-tasered-41-times-by-wa-police-wins-appeal-against-conviction-of-obstructing-justice/story-e6frg6nf-1226011562391> accessed 30 February 2011.
- O'Brien A, McKenna B and Simpson A (2007) 'Concerns about the use of TASERs on people with a mental illness in New Zealand' *Journal of Forensic Nursing* 3: 89-92.
- O'Brien A, McKenna B, Thom K, Diesfeld K and Simpson A (2010) 'Use of Tasers on people with mental illness: a New Zealand database study' *International Journal of Law and Psychiatry* 34(1): 39-43.
- O'Connell R (2009) 'Police plead for danger pay, Tasers' *The West Australian*, 27/6/09.
- Office of Police Integrity (2005) *Review of fatal shootings by Victoria Police* Victorian Government Printer.
- (2009) *Review of the Use of Force by and against Victorian police* Victorian Government Printer.
- Office of the State Coroner (2007) Findings of Inquest into the death of Michael John Eddy, COR 496/04(9) Queensland.
- (2010) Findings of Inquest into the death of Andrew John Bornen, COR 1289/09(8) Queensland.

- Omarzu T (2007) 'Taser protest scheduled today on Plaza: Mom calls for 'Taser-free Sonoma' after son, 15, zapped' at <http://sonomasun.thmm.com/?p=492> accessed 08 October 2008.
- Ordog G, Wasserberger J, Schlater T and Subramaniam B (1987) 'Electronic Gun (Taser®) Injuries' *Annals of Emergency Medicine* 16: 73-78.
- Palmer D (1994) 'Magistrates, police and power in Port Phillip' in A Nation of Rogues?' *Crime, Law and Punishment in Colonial Australia* Philips, D. and Davies, S. (eds) Melbourne University Press: Ringwood.
- Palmer D (1995) 'Excessive Force - beyond police shootings: use of force and governing the Victorian police force' *Alternative Law Journal* 20(2): 53-56.
- Parsons K (2000) 'Stun gun could be knockout for police' *The Sunday Telegraph*, 19/03/00.
- Perpitch N (2011) 'Police chief O'Callaghan defends lack of Taser charges' *The Australian* 20/04/11.
- Personal Correspondence (2012) email from Supt. M. Williams, Victoria Police, dated 24 April 2012.
- PerthNow (2010) 'ALS says Aborigines unfairly targeted with tasers' at <http://www.perthnow.com.au/news/western-australia/aborigines-targeted-with-tasers/story-e6frg14c-1225934530299> accessed 06 December 2010.
- Peters J and Brave M (2006) 'Force Continuums: Three Questions' *The Police Chief*, January, 2006: 8-9.
- Petrie A (2003) 'Police Trial 50,000 Volt Stun Guns' *The Age* 05/12/03.
- Phillips Y (2010) 'Taser accident lands policeman in hospital' *The Sunday Times* 20/3/10 at <http://www.perthnow.com.au/news/western-australia/taser-accident-lands-policeman-in-hospital/story-e6frg13u-1225843195294> accessed 10 October 2011.
- Pilant L (1993) 'Less-Than-Lethal Weapons: New Solutions for Law Enforcement' Executive Brief, International Association of Chiefs of Police, December 1993.
- Pilkington J (2009) *Aboriginal communities and the police's Taskforce Themis : case studies in remote Aboriginal policing in the Northern Territory* North Australian Aboriginal Justice Agency at <http://www.naaja.org.au/documents/Themis%20Report.pdf> accessed 25 September 2012.

- Pittsburgh Independent Media Center (2005) 'Pgh police fire tasers at recruiting protest' from <http://pittsburgh.indymedia.org/news/2005/08/19784.php> accessed 09 March 2008.
- Police Review Commission of the City of Berkeley (1997) *The Effectiveness of O.C. Pepper Spray: An Analysis of Berkeley Police Reports* unpublished report.
- Polk K (1987) 'When Less Means More: An analysis of destructuring in criminal justice' *Crime & Delinquency* 33(2): 358-378.
- Queensland Minister for Police (2008) '\$14 million committed for taser roll out and training' Media release, 16/07/08.
- Queensland Police Service (2008) *Review of the Queensland Police Taser Trial*
- (2009) 2008-2009 'Annual Statistical Review – Personnel' at www.police.qld.gov.au accessed 24 August 2010.
- (2009a) *Taser Engagement Strategy* at <http://www.police.qld.gov.au/News+and+Alerts/campaigns/taser/Engagement+Strategy.htm> accessed 24 August 2010.
- (2009b) 'Tasers introduced across Queensland early in the New Year' Media Release updated 17/06/09.
- (2010) 'QPS hosts Taser forum' Media release updated 07/10/10.
- (2012) Disclosure Logs – 2012, RTI/6296 available at <http://www.police.qld.gov.au/rti/disclog/2012.htm> accessed 23 April 2012.
- Randerson J (2006) 'Stun gun makers sue experts over safety criticisms' *The Guardian*, 09/03/06.
- Ranson D (1994) 'Oleoresin capsicum spray in the control of violence' *Journal of Law and Medicine* 2(1): 27-37.
- Rappert B (1999) 'Assessing Technologies of Political Control' *Journal of Peace Research* 36(3): 741-750.
- (2002) 'Constructions of Legitimate Force' *The British Journal of Criminology* 42(4): 689-708.
- (2003) *Non-Lethal Weapons as Legitimizing Forces?* Frank Cass: London.
- (2004) 'A Framework for the Assessment of Non-Lethal Weapons' *Medicine, Conflict and Survival* 20(1): 35-54.

- (2007) 'Policing & the Use of Force: Less-lethal Weapons' *Policing* 1(4): 472-484.
- Ready J, White M and Fisher C (2008) 'Shock Value: A comparative analysis of news reports and official police records on TASER deployments' *Policing: An International Journal of Police Strategies & Management* 31(1):148-170.
- Reiner R (1985) *The Politics of the Police* Wheatsheaf Books: Sussex.
- (2000) 'Police Research' in *Doing Research on Crime and Justice* R King and E Wincup (eds), Oxford University Press: Great Britain.
- (2000b) *The Politics of the Police* Third Edition Oxford University Press: Oxford.
- Rejali, D (2007) *Torture and Democracy* Princeton University Press: New Jersey.
- Rhodes N (1996) 'Cap-Stun Kickbacks: FBI's Top Expert Convicted of Felony, Took Money for Approving Pepper Spray', *Policing by Consent* 10.
- Rimrod F (2011) 'Top cope 'lied' to justify Spratt tasing' *WAToday* 11/2/11 at <http://www.watoday.com.au/wa-news/top-cop-lied-to-justify-spratt-tasing-mp-20110217-1axjr.html> accessed 13 October 2011.
- Robb M, Close B, Furyk J and Aitken P (2009) 'Review article: Emergency department implications of the TASER' *Emergency Medicine Australasia* 21(4): 250-258.
- Robinson G (2008) 'Taser rollout 'open to abuse' *Brisbane Times*, 29/1/08.
- Robinson (2010) 'Walker family and friend get \$15,000 after son Tasered by police in Northbridge' *Perthnow*, 02/12/10 at <http://www.perthnow.com.au/news/western-australia/walkeer-family-get-15000-after-son-tasered-by-police-in-northbridge/story-e6frg143-1225964523794> accessed 10 November 2011.
- Rolston B and Scraton P (2005) 'In the Full Glare of English Politics: Ireland, Inquiries and the British State' *British Journal of Criminology* 45: 547-564.
- Ryan E (2000) *Righteous Bullets: Just War Tradition and the Use of Deadly Force by Police*, MA Thesis, Melbourne University.
- (2008) 'Shocked and Stunned: A consideration of the Implications of Tasers in Australia' *Current Issues in Criminal Justice*, 20 (2): 293-302.
- (2010a) 'Talking about Tasers' *The Drum Opinion* 07/10/10 at <http://www.abc.net.au/unleashed/39768.html> accessed 8 October 2010.
- (2010b) 'The Trouble with Tasers' *Arena Magazine* 10/11/10, pp 7-9.

- Ryan K (2009) *Use of Conducted Energy Weapons by Municipal Police Agencies in British Columbia (Appendix G)* A report prepared for the Braidwood Commission on Conducted Energy Weapon Use British Columbia: Canada.
- Sapienza J (2009a) 'Taser attack, heart condition factors in 'tragic' attack' *WAToday* at <http://www.watoday.com.au/wa-news/taser-attack-heart-condition-factors-in-tragic-attack-20090203-7wvt.html> accessed 09 October 2011.
- (2009b) 'Man set on fire after police Taser shot' AAP, 21 July 2009.
- Sanders J (2006) 'Medical examiners walk uneasy path: Taser case brings unique pressures in finding cause of death' *The Portland Tribune* 24/04/06.
- Sarre R (1993) 'Police Use of Firearms: Issues in Safety' *Paper presented at the Second National Conference on Violence convened by the Australian Institute of Criminology, Canberra* 15-18 June 1993
- (1996) *Firearms Carriage by Police in Australia: Policies and Issues* Criminology Research Council.
- SBS (2010) *Insight: Tasers* aired 19/10/10 transcript available at <http://www.sbs.com.au/insight/episode/index/id/327/Tasers#overview>
- Scharf P and Binder A (1983) *The Badge and the Bullet: Police Use of Deadly Force*, Praeger: New York.
- Schwartz L (2001) 'Stun Guns Blamed For US Deaths' *The Sunday Age*, 19/08/01.
- Scott L (2007) 'Why did my son have to die?' *The Courier Mail*, 31/03/07.
- Scruton P (1985) *The State of the Police* Pluto Press: London.
- Scruton P and Chadwick K (1986) 'Speaking Ill of the Dead: Institutionalised responses to deaths in Custody' *Journal of Law and Society*, 1,(Spring): 93.
- Scruton P (2002) 'Defining "power" and challenging "knowledge": critical analysis as resistance in the UK' in K. Carrington, R.Hogg (eds) *Critical Criminology: issues, debates, challenges* Willan Publishing: Cullompton.
- Scruton P (2004) 'From Deceit to Disclosure: The Politics of Official Inquiries in the United Kingdom' in G. Gilligan and J Pratt, eds, *Crime, Truth and Justice: Official Inquiry, Discourse, Knowledge* Willan Publishing: Cullompton.
- Seiler M (1986) 'LAPD Use of Taser Ruled Legal in Death' at <http://articles.latimes.com/1986-01-08/local/me-5911> accessed 7th November 2009.

- Seven News (2008) *Taser Demand: Taser guns are being used by all mainland states except Victoria* (SEVEN Melbourne); Time: 18:03; Broadcast Date: Friday, 12th December 2008; Duration: 1 min., 36 sec at <http://search.informit.com.au.ezproxy.lib.monash.edu.au/documentSummary;dn=TEV20084901778;res=TVNEWS> accessed 21 January 2012.
- Shearing C and Stenning P (1985) 'From the Panopticon to Disney World: the development of discipline' in A. Doob and E Greenspan. (eds.) *Perspectives in Criminal Law* Canada Law Book Inc: Ontario, pp. 335-339.
- Sheptyki J (2007) 'High Policing in the Security Control Society' in *Policing* Vol. 1 (1):70-79.
- Sieghart P (1978) 'Harmless Weapons-a threat to liberty?' *New Scientist*, 30 March 1978.
- Silvester J (2008) 'Police use of capsicum spray soars' at <http://www.theage.com.au/news/national/police-use-of-capsicum-spray-soars/2008/03/02/1204402272829.html>
- Singer J (2008) 'Keep firm grip on stun guns' <http://www.news.com.au/heraldsun/story/0,21985,23014152-5000107,00.html> accessed 03 March 2008.
- Skogan W (2006) 'Asymmetry in the Impact of Encounters with the Police', *Policing and Society*, vol 16: 99-126.
- Skolnick J (1975) *Justice Without Trial: Law Enforcement in Democratic Society*, John Wiley & Sons, Inc: New York.
- Skolnick J (2008) 'Enduring issues of police culture and demographics' *Policing and Society* 18(1): 35-45.
- Skolnick J and Fyfe J (1993) *Above the Law: Police and the Excessive Use of Force*, Macmillan: New York.
- Smith M, Kaminski, R, Rojek, J, Alpert G, and Mathis, J (2007) 'The impact of conducted energy devices and other types of force and resistance on officer and suspect injuries' *Policing: An International Journal of Police Strategies & Management* 30(3): 423-446.
- Smith M, Petrocelli M, Scheer C (2007). 'Excessive force, civil liability, and the Taser in the nation's courts: Implications for law enforcement policy and practice' *Policing: An International Journal of Police Strategies & Management* 30(3):398- 422.
- Sprague O (2007) 'The Deployment of Taser Weapons to UK Law Enforcement Officials: An Amnesty International Perspective' *Policing* 1(3): 309-315.

- Stanbrook M (2008) 'Tasers in medicine: an irreverent call for proposals' *Canadian Medical Association Journal*, May 1, 2008.
- Standing Committee on Legal Affairs (2007) *Police Powers of crowd Control* Report 6 May ACT Parliament: Canberra.
- State Coroner of Victoria (2000) *Record of Investigation into the death of John Stuart McConnell* Case No: 1075/98: Melbourne.
- State Coroner of Victoria (2011) *Inquest into the Death of Tyler Jordan Cassidy*: Case No: 5542/08: Melbourne.
- Stenning P, Birbeck O, Baker D, Feltes T, Gabaldón L, Haberfeld M, Machado E, Waddington PAJ (2009) 'Researching the use of force: the background to the international project' *Crime, Law and Social Change* 52: 95-110.
- Stewart H (2008) 'A bullet for your trouble' *The Australian*, 19/04/08.
- Strote J and Hutson H (2006) 'Taser Use in Restraint-Related Deaths' *Prehospital Emergency Care* 10(4): 447-450.
- Styles A (2010) 'Claim of Taser Initiation Rituals in WA police force' at <http://www.watoday.com.au/wa-news/claim-of-taser-initiation-rituals-in-wa-police-force-20100715-10bnz.html> accessed 06 December 2010 accessed 17 January 2011.
- Sunday Territorian (2004) 'Stun guns still tried' *The Sunday Territorian*, 25/11/04.
- Sutherland E and Conwell C (1937) *The Professional Thief* University of Chicago Press: Chicago.
- Symons-Brown B (2008) 'NSW top cop says tasers not fatal' <http://news.smh.com.au/national/nsw-top-cop-says-tasers-not-fatal-20080518-2fkg.html> accessed 11 August, 2010.
- TASER International (2009) *Training Bulletin 15.0: Medical Research Update and Revised Warnings* Scottsdale: USA.
- TASER International (2011) 'Appeals Court Significantly reduces award in Heston Lawsuit Against Taser' *Media Release* 20/05/11 at <http://investor.taser.com/phoenix.zhtml?c=129937&p=irol-newsArticle&ID=1566093&highlight> accessed 09 December 2011.
- Task Force Victor (1994) *Police Shootings: A Question of Balance*. Melbourne.
- Tennessee v Garner* (471 U.S. 1, 1985).

- The Adelaide Advertiser (2000) 'Police test stun guns' 11/03/2000.
- The Age (2009) 'Entire footage of assault on Constable Butcher' at <http://media.theage.com.au/entire-footage-of-assault-on-constable-matt-butcher-468957.html> accessed 09 October 2011.
- The Associated Press (2007) 'Man shocked by Taser catches on fire' *USA Today* at http://www.usatoday.com/news/nation/2007-06-19-taser-man-burned_N.htm accessed 07 October 2011.
- The Canadian Press (2010) 'Report finding Tasers can kill will stand, judge rules' 10/08/10 at <http://www.ctv.ca/CTVNews/Canada/20100810/taser-report-100810/> accessed 06 November 2010.
- The Canadian Press (2011) 'Mounties in Dziekanski case charged with perjury' 12/05/11 at <http://www.cbc.ca/news/canada/british-columbia/story/2011/05/12/bc-dziekanski-perjury-charges.html> accessed 10 April 2012.
- The Council for Science and Society (1978) *Harmless Weapons* Barry Rose (Publishers) Ltd: London.
- The Herald Sun (2001) 'Should police be armed with stun guns?' Voteline 01/06/01.
- The Law Report (2008) 'Tasers or Stun guns' *ABC Radio National* 22/4/2008 at <http://www.abc.net.au/rn/lawreport/stories/2008/2222586.htm> accessed 08 October 2008.
- The Observer (2010) 'Stun-ning' find in the mangroves' 11/11/10 at <http://www.gladstoneobserver.com.au/story/2010/11/11/taser-gun-find-police-tannum-sands/> accessed 10 October 2011.
- The Royal New Zealand Police College (circa 2006) unpublished report on use of force models.
- The 7.30 Report (2005) 'Law and order front and centre in WA campaign' program transcript at <http://www.abc.net.au/7.30/content/2005/s1304491.htm> accessed 26/08/10, Australian Broadcasting Corporation.
- The 7.30 Report (2007) 'US deaths spark debate over stun gun laws' broadcast 27/12/2007, Australian Broadcasting Corporation.
- Thompson H (1990) 'Electricity' from *Songs of the Doomed* in *The Gonzo Papers Anthology* Picador: London.
- Thompson J (2011) 'Lawyer slams Taser option for asylum seekers' *ABC News*, 02/08/11.

- Tiffany L, McIntyre D and Rotenburg D (1967) *Detection of Crime* F Remington (ed) Little, Brown: Boston.
- Tobin M (2011) 'NSW Prison Guards demand tasers' ABCNews, 13/10/11 at <http://www.abc.net.au/news/2011-10-13/nsw-prison-guards-demand-tasers/3569102> accessed 11 April 2012.
- Todd M (2004) 'Beattie backs stun-gun raid' *The Sydney Morning Herald* 30/12/04.
- Tovey J (2011) 'Stun guns have not reduced police use of firearms' *The Sydney Morning Herald* 26/09/11 at <http://www.smh.com.au/nsw/stun-guns-have-not-reduced-police-use-of-firearms-20110925-1krut.html> accessed 01 November 2011 accessed 04 October 2011.
- Trahan J (2011) 'Dallas officer is among several suing Taser, alleging injuries during training' *The Dallas Morning News* 19/01/11 at <http://www.dallasnews.com/news/community-news/dallas/headlines/20110119-dallas-officer-is-among-several-suing-taser-alleging-injuries-during-training.ece> accessed 07 April 2012.
- TVNZ (2011) 'Police refuse to release NZ Taser footage' at <http://tvnz.co.nz/national-news/police-refuse-release-nz-taser-footage-3377838> accessed 02 February 2011.
- United Nations (1990) *Basic Principles on the use of Force and Firearms by Law Enforcement Officials* at <http://www2.ohchr.org/english/law/firearms.htm> accessed 26 September 2011.
- United Nations Committee Against Torture (2008) Consideration of Reports Submitted by States Parties under Article 19: Portugal CAT/C/PRT/CO/4.
- U.S. Department of Justice (2008) *Homicide Trends in the United States, 1980-2008* at <http://www.census.gov/compendia/statab/2012/tables/12s0312.pdf> accessed 22 January 2012.
- Victoria Police (2011) *Conducted Energy Device Pilot Project Interim Evaluation Report* February, 2011 at http://www.police.vic.gov.au/content.asp?Document_ID=31234 accessed 28 February 2012.
- Victoria Police Association (2004) 'Taser Guns' *Victoria Police Association Journal* May: 32-33.
- Vilke G and Chan T (2007) 'Less lethal technology: medical issues' *Policing: An International Journal of Police Strategies & Management* 30(3): 341-357.

- Vronsky P (2004) *A Brief History of Constables in the English Speaking World* at <http://www.russianbooks.org/crime/cph1.htm> accessed 18 November 2010.
- WA Coroner (2010) *Finding upon Inquest into the death of Mark Lewis Conway F/No 768/07*, 22 April 2010.
- Waddington P A J (1991) *The Strong Arm of the Law: Armed and Public Order Policing*, Clarendon Press: Oxford.
- Wakefield A and Flemming J (eds.) (2009) *The SAGE Dictionary of Policing* Sage Publications Ltd: London.
- Walker S (1993) *Taming the System: The Control of Discretion in Criminal Justice 1950-1990* Oxford University Press: New York.
- Wallentine K (2009) 'The Risky Continuum: Abandoning the Use of Force Continuum to Enhance Risk Management' *International Municipal Lawyers Association Journal*, Summer: ©2009 KR Wallentine.
- Waterhouse C (2009) 'Police test the Taser' *The Mercury* 01/05/09.
- Watson R (2009) 'Adam Salter's death at the hands of police leaves many questions' *The Daily Telegraph* 19/11/09 at <http://www.dailytelegraph.com.au/news/adam-salters-death-at-the-hands-of-police-leaves-many-questions/story-e6freuy9-1225799489643> accessed 10 October 2011.
- Watson R (2011) 'Myths, Reality, Taser weapon Use and Public Policy' paper delivered at the *Australian Public Sector Anti-Corruption Conference*, Fremantle, 15-17 November 2011.
- Watt B (2001) 'Crackdown on attacks' *The Northern Territorian* 27/01/01.
- Weber, B (2009) 'Jack Cover, 88, Physicist Who Invented the Taser Stun Gun, Dies' at <http://www.nytimes.com/2009/02/16/us/16cover.html> accessed 21 October 2009.
- Welch D (2008) 'Police silent on man's death after they shot him with a Taser' *The Sydney Morning Herald* at <http://www.smh.com.au/articles/2008/11/19/1226770542452.html> accessed 03 October 2011.
- Welch D (2010) 'Target unarmed most of the time Tasers used in controversial trial' *The Sydney Morning Herald*, 09/07/2010.
- Western Australia Police (2010) *Annual Report*, Government Printer, Perth.

- Western Australia (2008) *Parliamentary debate*, Legislative Assembly, 22/05/2008, Dr K. O'Callaghan: pp 401-418.
- (2009) *Parliamentary debate*, Legislative Assembly, 17/03/2009, R Johnson: pp 1889-1890.
- White M and Ready J (2007) 'The TASER as a Less Lethal Force Alternative: Findings on use and Effectiveness in a Large Metropolitan Police Agency' *Police Quarterly* 10(2): 170-191.
- White R (2008) 'Depleted uranium, state crime and the politics of knowing' *Theoretical Criminology* 12(1): 31-54.
- Williams H (2008) *Taser Electronic Control Devices and Sudden In-Custody Death: Separating Evidence from Conjecture* Charles C Thomas: Illinois.
- Williamson P (2011) 'Ninth Circuit Court of Appeals Upholds Jury verdict Against TASER International Inc., in Wrongful Death Suit' *PRWeb* at <http://www.prweb.com/releases/2011/5/prweb8405248.htm> accessed 09 August 2011.
- Wilson D (2005) 'Traces and Transmissions: techno-scientific symbolism in early twentieth-century policing' in Godfrey B and Dunstall G (eds) *Crime and Empire, 1840-1940: Criminal Justice in local and global context* Willan Publishing: Great Britain.
- Wilson D (2006) *The Beat: Policing a Victorian City*, Melbourne Publishing Group Pty Ltd: Melbourne.
- Wilson D (2008) "Histories of Policing", in R. Broadhurst and S. Davies (eds) *Policing in Context*, Oxford University Press: Oxford.
- Woo, E (2009) 'Jack Cover dies at 88; Scientist who invented the Taser stun gun' at <http://www.latimes.com/news/obituaries/la-me-jack-cover13-2009feb13,0,2146713.story> accessed 21 October 2009.
- Wood T (1997) *Royal Commission into the New South Wales Police Service: Final Report*, Royal Commission into the New South Wales Police Service: Sydney.
- Wray M (2008) 'Claim cop used taser on man to "shut him up' at <http://www.news.com.au/couriermail/story/0,23739,23236430-3102,00.html> accessed 13 March 2008.
- Wray M and Chudleigh J (2009) 'CMC blasts police for tasering teen girl at Southbank' *Courier Mail*, 4/3/09.

- Wright S (2002) 'Future Sublethal, Incapacitating & Paralysing Technologies' a draft paper presented to the *Expert Seminar on Security Equipment and the Prevention of Torture*, 25-26 October London.
- Wright G and Wootson C (2011) 'Teen's family wins \$10 million Taser verdict' *The Boston Herald*, 20/07/11.
- You Tube (2007) 'Robert Dziekanski tasered by the RCMP at Vancouver Airport' at http://www.youtube.com/watch?v=IPe_hf7aBXM accessed 28 April 2012.
- YouTube (2010) 'Unarmed Man Tasered 13 Times by Western Australian Police' at <http://www.youtube.com/watch?v=MCwH6haU9XM> accessed 11 November 2010.
- Yueng B (2009) 'Taser's Delirium Defence' *Mother Jones* at <http://motherjones.com/politics/2009/02/tasers-delirium-defense> accessed 16 May 2009.
- Zachariah H (2009) 'Police Taser ignites Lancaster man' *The Columbus Dispatch* 18/8/09 at http://www.columbusdispatch.com/live/content/local_news/stories/2009/08/18/stun-gun.html?sid=101 accessed 19 August 2008.

CEW OPERATIONAL POLICIES, GUIDELINES, POLICY POSITIONS AND MODEL POLICIES

- Association of Chiefs of Police Officers (2007) *Operational Use of Taser Policy*
- Association of Chiefs of Police Officers (2008) *Extended operational Deployment of Taser for Specially Trained Units (excluding firearms incidents) Policy*
- Canadian Association of Police Boards (2009) *Conducted Energy Weapons (CEWs): Developing a Policy Position*
- Canadian Police Association (2009) *Policy Document on Conducted Energy Weapons (CEWs)*
- International Association of Chiefs of Police (2005) *Electronic Control Weapons Model Policy*
- International Association of Chiefs of Police (n.d.) *Electro-Muscular Disruption Technology: A Nine-Step Strategy for Effective Deployment*
- New South Wales Police Force (2011) *Use of Electronic Control (TASER) Devices By The NSW Police Force Version 1.0.*

Northern Territory Police (2009) *Electro-muscular Control Device Good Practice Guide*
December 2009

Queensland Police Service (2008) *Taser Trial – Update* Commissioner’s Circular No.
10/2008

Queensland Police Service (2009) *Taser Policy* Commissioner’s Circular No. 15/2009

Victoria Police (2010) *Victoria Police Manual – Procedures and Guidelines: Use of Conducted
Energy Devices*

Victoria Police (2010) *CCI 12/10 – Pilot policy for use of conducted energy devices* Chief
Commissioner’s Instruction

Western Australia Police (2007) *WA PolicyFR-1 Force Options*

Western Australia Police (2010) *FR-1.6 TASER (Attachment to LC QON 3265)*

