

# HOME TEAM

## JOURNAL

BY PRACTITIONERS,  
FOR PRACTITIONERS



**UNWANTED ACQUAINTANCES:  
CYBERSTALKING AS EXPERIENCED BY  
EMERGING ADULTS IN SINGAPORE**

*Majeed Khader, Jansen Ang, Jeffery Chin,  
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**IDENTIFYING INDIVIDUALS  
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DESIGNING TRAINING PROGRAMMES FOR  
POLICE OFFICERS**

*Loy Chye Meng*

# HOME TEAM JOURNAL

The Home Team Journal is a publication by the Home Team Academy in collaboration with the Ministry of Home Affairs of Singapore and its departments, which are collectively known as the Home Team. The journal publishes articles and reviews on issues relating to the Home Team and its core competencies.

It aims to be a platform to share knowledge and new insights, stimulate critical thinking and discussion among the Home Team community, and reach out to our stakeholders and the global community of practitioners in national safety and security.



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# FOREWORD AND EDITORIAL INTRODUCTION

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I am delighted to publish the sixth issue of the Home Team Journal. As an academic journal, the HT Journal represents one of the key ways in which HTA strives to share new insights and key lessons, and stimulate critical thinking and discussion among the HT community in the area of safety and security.

In keeping with the new sections introduced in the last issue, Issue 6 covers a broad spectrum of content, ranging from new HT policies, to operational research and opinion pieces on issues relating to the HT. In this issue, we have also included a special feature on Mr Benny Lim, our former Permanent Secretary for Home Affairs and the Director of the Internal Security Department from 1997 to 2011, as he retires from public service. In the article, we pay tribute to Mr Lim's leadership and stellar contributions to the HT, and whose vision led to the establishment of the HTA in 2006. Our HT leaders share how Mr Lim had influenced and inspired many of them to greater heights.

Cybercrime remains one of the key challenges facing the HT and it has become an even more insidious threat in recent years. The separation of internet access on work computers for public servants announced in June this year is a sombre reminder of the lurking dangers of cyberhacking, and the importance of practising cyber security in our daily lives. Our cover story looks at another aspect of cybercrime – cyberstalking. Here, we discover how the HT Behavioural Sciences Centre (BSC) uncovered the impact of cyberstalking victimisation among Singaporean young adults. Using surveys from 497 university undergraduates and 317 polytechnic students, Dr Majeed Khader and his team examine the prevalence of cyberstalking, victims' perception of threat and distress levels, and victims' coping strategies and their attitudes towards future help-seeking avenues.

We also examine how the trends in policy changes correspond to rates of offending for cases of theft on board aircraft. DPPs Krystle Chiang and Chee Ee Ling, and Ms Grace Teo from the Attorney-General's Chambers posit that the increased severity in penalties that the Courts have meted out and certainty of detection have deterred thefts from occurring on board aircraft. The article also provides insights into the specific characteristics of offenders in terms of demographics and modus operandi.

Moving on to operations, SAC Anwar Abdullah's article recounts the exciting journey of SCDF's Lionheart Contingent as it went through mandatory re-certification after becoming the first team in the Asia-Pacific region and seventh in the world to attain the highest level of classification in Urban Search and Rescue (USAR) capabilities, awarded by the United Nations in 2008. The author touches on the preparations that the team made to face the challenges of the reclassification exercise as well as the lessons learnt by the team.

Psychology and behavioural sciences research feature heavily in this issue as we look at policing, rehabilitation, and leadership through an academic lens. Dr Lal Nelson and his team from the Research and Statistics Division of the Ministry of Home Affairs share their findings on a randomised controlled trial used to test the effectiveness of Behavioural Insights modifications on residents' participation rate in SCDF's Community Emergency Preparedness Programmes (CEPP). The results highlight the importance of bridging the intention-action gap instead of merely getting people interested in order to bring about actual increases in participation. Mr Neo Loo Seng from BSC proposes the use of behavioural sciences research to aid law enforcement agencies in identifying individuals at risk of being radicalised via the internet. The BSC shares their study on detecting deception during investigative interviews. The results show that Singaporean liars tend to nod more and fidget less than truth-tellers. Implications for investigator training and criminal investigative procedures are then discussed.

Also in this issue, we are privileged to have SAC Loy Chye Meng, Deputy Chief Executive (Administration) of HTA and concurrently the Commander of Police Training Command share his thoughts on training. In his opinion piece, Mr Loy outlines the dilemmas in designing training programmes for law enforcement officers. He posits that an effective training programme that imparts both principles and procedures can impact an individual in a significant way, but that ultimately, a person's attitude and aptitude as well as the environment in his work unit will have an even greater influence on the transfer and internalisation of professional skills and knowledge.

On this note, I hope that this issue provides good insights into the recent work of the Home Team and how it continues to keep Singapore safe and secure.



**T. RAJA KUMAR**  
*Chairman*

*Home Team Journal Editorial Board*

# A Titan of the Home Team Retires A Tribute to Benny Lim

by Susan Sim  
Editorial Consultant

Do it right and do it well. When Benny Lim says these words to you, it is not a gentle nudge. Deliver or he will do the job himself. For chances are that he has already analysed the issue from multiple angles, foreseen the pitfalls in possible solutions and decided on the level of risk acceptable to meet operational and strategic goals.

Working with a boss like Benny can be nerve-wrecking if you do not know your stuff; under the charming and reassuring manner is a finely-tuned BS-radar. Yet, as former Commissioner of the Singapore Civil Defence Force James Tan found out, Benny is exactly the sort of boss you want in a crisis.

“I was the commander during a major incident and apprised him of my operational plan, rationalizing some of the critical decisions we had to make,” recalls the former army officer who ran SCDF for 17 years. “I remember vividly PS Benny Lim saying, ‘James, do what you think is correct and do it well. I am behind you on all your decisions.’ This was a very strong mandate given to me at that critical time. I really appreciated the complete trust he had in me and the full support he rendered, which helped in the successful execution of the operation.”

“Visionary leader” and Benny Lim are synonymous as far as most Home Team officers



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are concerned. Coming in a close second is “caring boss”. When chief police psychologist Majeed Khader began setting up the Behavioural Sciences Centre at HTA under Benny’s direction in 2005, a friend told him: “You are lucky. Benny is a life time guarantee - he always looks out for you even when he has gone off to do something else!”

That care and concern extends to all who work for him. Jason Jevanathan, a Home Team Academy (HTA) protective security specialist tasked to oversee security for the Future of Us (FOU) exhibition - the final and capstone event in the SG50 calendar that ran from December 2015 to

“I learnt from Benny what it means to be courageous as a leader in doing the right thing, to genuinely care for every officer right down to the gardener, and to plant trees in the belief that future generations will benefit in the same way that we have benefitted from those before us.”

Loh Ngai Seng  
2 Permanent Secretary (Home Affairs)

March 2016 – remembers the steering committee chairman showing up several times a week. “PS Benny would visit the site frequently, giving advice to the core leadership team on all aspects of the FOU. He not only looked at the event from a strategic level, but also at a very human level - the welfare of the cleaners and volunteers. Whether he was giving us advice or bringing us ‘kopi’, we were comforted by his presence.”

During one of these visits, Jason showed Benny a security precaution he had put in place. “I used my torchlight to show him the temporary fence we had put up. The next day he brought us more powerful torchlights, which he had paid for himself and which we could keep after the event. It was an awesome piece of equipment. My colleagues and I were very moved by his gesture.”

Benny believes that we all serve a cause larger than ourselves, and just as he does his best on every mission, he expects the best from everyone too. Mistakes are not to be glossed over but to be learnt from.

“I had the privilege of working under Benny when I was a young Inspector in the Internal Security Department, and for many years after that,” says Director of the Central Narcotics Bureau Ng Ser Song. “Something he used to say to me, which I remember vividly, is: ‘Be personable but don’t get personal.’ He may be a caring and approachable boss but when there is a problem or issue, he is tenacious in getting to and addressing the root cause of the problem or issue. And if there is a need to deal with the people responsible for mistakes, he does so with a heart. This is what makes him a great boss to many of us.”

Prime Minister Lee Hsien Loong puts it succinctly: “Benny is respected and loved as a leader.” Thanking Benny for his 37 years of service at the 2016 Administrative Service Dinner in April, PM Lee added: “We will miss him. The Ministers, in particular, will miss his political acumen, his strong heart, and his clear mind.”

“ PS Benny Lim has been an inspirational leader with a unique combination of intellect, guts and gumption, ability to engage officers at all levels, and a deep and genuine care for his men. He is a no-nonsense individual and can be formidable when the occasion demands it, but he has a kind and compassionate heart when it matters. I was touched when despite being out of the Ministry of Home Affairs and serving as PS for National Development, he cared enough to reach out to a senior Police leader to offer the officer a job because of the officer’s personal circumstances.

Boss - as he is affectionately called - knew how to get the best out of his officers, such was his deep insight.

He was a boss who would stand by us in even the most difficult of circumstances, to guide and point us in the appropriate direction. He always made time if one needed advice or guidance, and would offer guidance over coffee in his office, and was proactive in engaging his officers to alert them to upcoming events that they needed to watch and not be blindsided by.

In the course of meeting with foreign law enforcement leaders, they would ask after him with deep respect and fondness - he had clearly deeply impressed them and left an indelible mark - and I was proud to share with them that I had served under him.”

T. Raja Kumar  
Deputy Secretary (International), MHA  
and Chief Executive,  
Home Team Academy

## FROM PC 8968 TO PS (PRIME MINISTER'S OFFICE)

Benny retired as PS (National Development), PS (Prime Minister's Office) and PS (National Security and Intelligence Coordination) at the end of April 2016. For most of his career, however, he was one of us, a member of the Home Team.

His trajectory to the top was rapid but unconventional. The former head prefect of Raffles Institution joined the police force as a constable in 1975. PC 8968 was working in a mobile team policing unit, attending to cases in Charlie Division, then headquartered in Beach Road Police Station, when, as PM Lee tells the story, then Officer Commanding Tee Tua Ba spotted him. "He thought this Constable was smart and capable, and wondered why he did not go to university. So, he called up Benny for an interview to ask why. Benny told Tua Ba that he wanted to be a policeman. So Tua Ba encouraged him to apply for a police scholarship to study at the University of Singapore, as it was then."

Benny was awarded one of the two annual Singapore Police Force study awards for junior officers to pursue undergraduate studies on no-pay leave in 1977.

He credits his "JO mafia" for making sure his confirmation as a police officer was gazetted in time for him to be considered for the study award, and that he did not have to walk to the crucial interview at City Hall because a transport sergeant "missed a turn" at the boundary of Charlie Division and ended up in front of the Padang. Majoring in English and History, he surprised the Public Service Commission when he topped his class in his first year. Benny went on to win several academic awards and on

graduating with an Honours degree in English in 1981, was posted to ISD as a detective.

It was not a posting he had sought, but he stayed, was commissioned a senior police officer and in 1991, was appointed Director of Operations in ISD. He led many counter terrorism operations and counter espionage investigations, and in

## Top scholar Benny

### *Policeman gets best results in varsity examination*

Benny Lim Siang Hoe, recipient of the Police Undergraduate Scholarship Award 1977, has come off with flying colours in the University of Singapore First Year Examination for the Bachelor of Arts and Social Sciences degrees held early this year.

He topped the examinations by achieving the best overall results among 450 students in the faculty. This distinction and the recommendation of the University Board of Examiners won him the Prestigious OCBC Gold Medal 1977/1978. Benny also walked away with the Associate Professor Edwin Thumboo Book Prize for scoring the best results in the English paper.

When he was interviewed recently at the Bukit Timah Campus, he was not one who has allowed success to go to his head but an unassuming Benny



Benny Lim

time between studies and play and striking a good balance between the

Source: 1978 Police Life magazine

1997, was promoted to Deputy Commissioner of Police and appointed Director ISD (DISD). Invited to join the elite Administrative Service, Benny declined because he was required to leave the police service and he did not see why a serving police officer could not, for the first time ever, be DISD. Four years later, he was persuaded to join the admin service. He had by then reached the penultimate grade in police rank and understood that his returning to the force anytime soon was unlikely.

As DISD, Benny oversaw the dismantling of the clandestine Jemaah Islamiyah (JI) terrorist network in Singapore soon after the 911 attacks in the United States. In PM Lee's tribute, he reveals



how Benny began shaping a national strategy for countering terrorism while running operations against JI:

“His experience and judgment were critical when we discovered the Jemaah Islamiyah group back in 2001. He led ISD to apprehend the terrorists, and foil their plot to bomb multiple targets in Singapore. Crucially, he led ISD actively to manage the public relations and to help the Government to rally the broader population. We reached out to Muslim religious leaders, and encouraged them to set up the Religious Rehabilitation Group (RRG) which successfully rehabilitated many detainees.”

The “public relations” management involved ISD officers visiting Muslim organisations and briefing their leaders before the details of the operation against JI were made public so that they understood the implications on racial and religious harmony and could help maintain calm and minimise potential fallout. Benny invited

two senior clerics to interview the detainees in custody and they later volunteered to work with ISD to craft a rehabilitation programme that eventually evolved into the RRG. It was then completely untested territory and against conventional views.

“Benny was way ahead of everyone by putting in place counter extremism measures that brought the wider Singaporean community together against the divisive plans of the terrorists,” notes Ali Soufan, author of *The Black Banners* and a former FBI agent who led the early US investigations into al-Qaeda. “He has a keen understanding that goes beyond operational expertise to the deep and thorough knowledge of the root causes of any particular problem he faces. Benny is a strategic thinker - he is a visionary - yet also a tactical genius. It’s often difficult to find someone who combines both. Singapore’s excellence in the field of security has been largely shaped by Benny.”



1992: Benny presenting a farewell gift on behalf of ISD to outgoing Police Commissioner Goh Yong Hong (right)

## CAREER HIGHLIGHTS

### *As Director ISD from 1997 to 2004:*

- Conducted many counter-espionage investigations and counter-terrorism (CT) operations, the most significant CT operation of which was against the clandestine JI network and neutralising its terror attack plans in Singapore. Also worked closely with Muslim religious leadership to counter the threat of terrorist and extremist ideology with the eventual formation of the community-based Religious Rehabilitation Group.
- Established the security research and education programme which led to publication of several works based on materials in ISD and also to the development of the ISD Heritage Centre as a training and outreach facility.
- Established the unified intelligence service scheme for ISD officers (hitherto composed of several schemes of service including Police service).

### *As 2PS and PS (Home Affairs) from 2004 to 2011, established:*

- The Home Team Academy; and within it, created the CT Lab for hands-on exposure and training of front-line officers to detect and identify explosives and sensitive material;
- The Police Mass Rapid Transport Unit using mainly NSmen as front-liners (before 7/7 London subway incident) which later grew and became the Police Transport Command;
- The Home Team Behavioural Sciences Centre to advance ops psychology in support of HT work;
- The Chief Science and Technology Office which developed bio-chem detection capabilities at the land checkpoints for stronger border security;
- The Home Team Specialist Scheme to recruit and retain domain specialists e.g. criminal intelligence analysts, forensic investigators, ops psychologists; and
- The Home Team Volunteers Network which consolidated and coordinated volunteer engagement and development across all the HT agencies.

Led the Inter-Ministry Working Group which developed the Community Engagement Programme (CEP).

As Chairman of the Homefront Crisis Executive Group, presided over crisis ops management of the Nicoll Highway Collapse incident and the Whole-of-Government management response to the H1N1 pandemic.

### *As PS (National Development) from 2011 to 2016:*

- Grew the Centre for Liveable Cities to be a national resource for complex urban system studies.
- Formed the Research and Analysis Partnership (ReAP) as an exchange platform for researchers within the Ministry of National Development (MND) family as well as from associated agencies focussing on socio-economic research.
- Formed the MND Volunteers Network to consolidate and coordinate volunteer engagement and development across the statutory boards.
- Advocated strongly for the Green programme and drove the Ubin project led by the National Parks Board.
- Chaired the inter-ministry steering group which developed and conducted the Future of Us exhibition (which ran from December 2015 to March 2016), the final event in the SG50 calendar, and the launch point for the on-going SGFuture engagement.

### *As PS (National Security and Intelligence Coordination) from 2011 to 2016, established and developed:*

- Interdependency modelling for complex systems with Defence Science Organisation;
- National security education programme for public servants with support of security agencies; and
- The social resilience research roundtable (which engages all social research units within the public sector).

## INCUBATING THE HOME TEAM ACADEMY

Launching HTA in 2005, Benny described a soaring vision: “The Home Team Academy above all is an incubator of human and organisational potential - developing untrained men and women into full-fledged professionals; constantly seeking and exploring new professional knowledge in anticipating the future; mining and clarifying our histories and experiences so that we may discover and learn the practical lessons and insights embedded in our fertile past.”

It would take “strength and commitment of many hands to make the Academy reach its full potential”, he said. Not one to leave synergy alone to translate ideas into energy, he set about identifying officers who could develop institutions to harness the “rich diversity of expert knowledge, experience and talent” he saw in the Home Team.

Majeed Khader remembers getting a phone call in late 2005 from Cinda Phay, personal assistant to the then 2PS (Home Affairs) Benny Lim. “He wanted to meet. It seemed sudden and I had never gotten any call from a PS before! When we met, 2PS Benny first asked if I drank coffee and



February 2005. Witnessing the “topping-out” of the HTA building.

poured me one. I remembered thinking to myself that either this is a very friendly person or I am in for a lot of work! Over coffee, we spoke about his vision for behavioural sciences in the Home Team. He asked that I write the approval paper and that I lead it and pretty much gave me carte blanche on crafting the broad programmes. So I worked on it, he made a couple of changes and then he almost instantly approved it! People were startled at this and others irritated too, wondering what it was and what it had to offer...this new Behavioural Science Programme based at HTA.

“We worked on the research relating to the psychology of terrorism and radicalisation, deception, crisis leadership and the psychology of adapting new citizens into Singapore. It was a small unit of five: me, Jansen, Jeff, Eunice and Chunmu. In a sense, with the BSP, he had also created the first Home Team psychologist! Truly Home Team in mandate! Such a role doesn’t exist anywhere in the world! Before this we had police and prisons psychologists but never the truly defined Home Team psychologist. All of this was path finding - as far as psychology went. His solutions were often organic, real and creative.”

“Benny Lim is a visionary thinker. The HTA is a visionary concept that should be emulated by all nations that are serious about streamlining disaster and terrorist response operations. Brilliant, humble and generous with his time and counsel, Benny will be missed by me and other national security specialists around the world.”

BG (ret'd) Russ Howard  
 Founding Director, Combatting  
 Terrorism Center at West Point  
 Member of HTA Panel of Advisors  
 (2007-12)

That Benny Lim left a deep imprint on the Home Team is evident. Equally obvious even to non-Home Team observers like Ali Soufan is this: “Benny’s dedication to the mission was matched only by his dedication to his troops; he expected their best, and in return, he gave them his best.”

Benny brought out the best in Home Team officers, some inspired by his vision, others by

an abiding sense of loyalty. Jason Jevanathan perhaps puts it best when he says: “To hell and back is a phrase the special forces reserve for leaders whom we can trust and have our best interests at heart. Indeed PS Benny could have given me any mission and I would have gone to hell and back. It has been my honor and privilege to have served him.”



February 2012. Then Commissioner of Police Ng Joo Hee presenting the Temasek Sword to PS Benny Lim at a Dining-in to honour his service to the Singapore Police Force.

*Thank you,  
Benny*

**for your leadership and service  
to Singapore**

## THE AUTHOR

Ms Susan Sim has been the Editorial Consultant of the Home Team Journal since its launch in 2008. The first female recipient of an Overseas Merit Scholarship tied to the Police Service, she was a trainee inspector at the Police Academy when her squad was invited to a Dining-in at the Singapore Police Officers' Mess. Introduced to several senior officers from the Internal Security Department, she asked one of them what he did. He made her laugh instead. She later found out that one of Benny Lim's most inspired leadership traits is a great sense of humour.

Susan's career choices have taken her from heading counter-terrorism and counter-espionage research analysis at ISD, to Indonesia Bureau Chief for *The Straits Times*, to Deputy Chief of Mission in Washington DC with the Singapore Foreign Service. She now works with The Soufan Group, an international strategic intelligence consultancy, and is an Adjunct Senior Fellow at the S. Rajaratnam School of International Studies at the Nanyang Technological University in Singapore.

A member of the National Crime Prevention Council and chair of its research committee, she wrote *Making Singapore Safe: Thirty Years of the National Crime Prevention Council* (Singapore: Marshall Cavendish, 2011), a book described by the Singapore Prime Minister as "a fitting tribute to the Council's critical role in preventing crime in Singapore". She is writing another book on the NCPC's public education efforts with Majeed Khader and Carolyn Misir of the Police Psychological Services Division.

Her biography of EW Barker, Singapore's first independence Minister for Law, will be published by ST Press in November 2016.

Susan has also contributed to *Setia dan Bakti: 50 Stories of Loyalty and Service* (Singapore Police Force, 2015), *Policing for a Safer World* (Pearls in Policing, 2012), *Homeland Security and Terrorism* (McGraw-Hill, 2013), *Trends in Corrections: Interviews with Corrections Leaders Around the World* (Taylor & Francis, 2015), and *Trends in Policing: Interviews with Policing Leaders Around the World* (Taylor & Francis, December 2016). She is on the Editorial Board of *Police Practice & Research*, an international journal that presents current and innovative police research as well as operational and administrative practices from around the world.

# Unwanted Acquaintances: Cyberstalking as Experienced by Emerging Adults in Singapore

By Majeed Khader, Stephanie Chan, Jansen Ang and Jeffery Chin  
Home Team Behavioural Sciences Centre

## INTRODUCTION

Greater access and affordability of information communication technologies (ICT) in Singapore mean that many electronic devices such as laptops, tablet browsers, and mobile phones have become a part of everyday life. At the same time, the phenomenon of social media and technology-mediated interaction and communication has provided new territory in criminal victimisation (Roberts, 2009). Cybercrime continues to remain a key area of concern in Singapore (Lim, 2014; Singapore Police Force Annual Crime Brief 2015) with the increasing use of cyberspace to carry out online commercial crimes<sup>1</sup> such as scams, hackings and extortions. Equally worrying is the employment of social media as tools for hostile online behaviours such as harassment/stalking (Poh, 2013), threats, ‘flaming’ (Davie & Liaw, 2005), and shaming comments (Foo, 2014). This is an area of concern as cyberstalking and cyberharassment have potential negative impact on online social norms.

Cyberstalking refers to a ‘set of behaviours that involve repeated threats, harassment, or other unwanted contact, by the use of computer or other electronic communication-based technology that has the effect of making another person feel afraid, intimidated, or concerned for his or her

safety’ (Miller, 2012). It covers a broad range of behaviours, including electronic surveillance of a victim’s social networking profile, ‘spamming’ (i.e. excessive texting, emailing, or posting of comments), and sending of insults. It is also a term used interchangeably with cyber-harassment in the psychological and legal domains, both locally and internationally.

For victims of prolonged or intensive cyberstalking, there is much emotional and psychological distress. The collapse of time-space barriers in cyberspace means that repeated and intrusive behaviours are enacted with ease. Also, the many-to-many connectivity nature acts as a force multiplier, enabling a single individual to generate harmful effects by interacting with thousands. For example, a defamatory Facebook posting can be distributed on a mass scale with minimal effort.

In addition, the anonymous and borderless aspect of cyberspace limits the extent to which a victim can singlehandedly locate and approach his/her aggressor(s). Transnational stalking also makes it taxing on law enforcement agencies to support and safeguard victims’ right and interests (Capeller, 2001). Taking all these into account, it is unsurprising that victims’ responses can be typical of reactions to traumatic encounters (National Center for Victims of Crime, 2003).

“A defamatory Facebook posting can be distributed on a mass scale with minimal effort.”

<sup>1</sup> The Singapore Police Force Annual Crime Brief 2015 notes an increase in online commercial crime. The number of “credit-for-sex” scams in Singapore increased from 66 cases in 2014 to 1203 cases in 2015. The number of internet love scams increased from 198 cases in 2014 to 383 cases in 2015.

## PURPOSE OF STUDY

It is in this context of recognising the concern with cyberstalking, and therefore improving protection for victims, that the Home Team Behavioural Sciences Centre (HTBSC) embarked on an exploratory study into the victimology of cyberstalking in Singapore. Considering the rapidly evolving nature of technology, such as data sharing on cloud, preliminary studies must first seek to understand the victim's experience before discussions can take place on the effectiveness of laws to draw boundaries for criminal behaviour, set standards for prosecution, and to create penalties for violations.

Unfortunately, not much local research has been done regarding the issue of cyberstalking. Most of the empirical studies are focused on offline stalking, while the minority of studies that examine cyber-victimisation have differences in definition and measurement scales. To the authors' knowledge, no published research article that explores the nature and impact of cyberstalking/cyber-harassment on emerging adults in Singapore and in Southeast Asia exists. This is the first study related to cyberstalking in a specific Singaporean demographic.

## STUDY AIMS

The research on cyberstalking and cyber-victimisation is yet to be fully established. Other than anecdotal information, some studies have attempted to draw links from real life stalking research as well as other electronic hostile interactions. That being said, there are some preliminary findings. The study aimed to explore the following four issues in the local context:

### 1. What is the prevalence rate of cyberstalking among students from Singaporean universities and polytechnics?

Depending on the measures used and populations sampled, the estimated incidence and prevalence

of cyberstalking ranges from 3 to 31% (Alexy, Burgess, Baker, & Smoyak, 2005; Baum, Catalano, Rand, & Rose, 2009; Bocij, 2003; D'Ovidio & Doyle, 2003; Sheridan & Grant, 2007).

University and tertiary education students – emerging adults – are a group expected to be vulnerable to cyberstalking. One reason is their high Internet usage for social interaction. In 2012, a Singapore Infocomm Development Authority (IDA) study found that individuals aged 15 to 24 years of age spent a large proportion (73%) of their online time on social networking (IDA, 2012). Those who put up personal identifying information online are at most

“University and tertiary education students – emerging adults – are a group expected to be vulnerable to cyberstalking.”

risk of cyber-victimisation. Another reason is that the nature of university/college interactions are such that students live and study in a relatively closed community where personal information (e.g. e-mail addresses, class attendance lists, timetables) is easily obtained (Finn, 2004). In American universities, cyberstalking is gaining prominence, with prevalence rates ranging from 8.6% to 43.4% (Lindsay & Krysik, 2012). Emerging adults are therefore a population of interest.

### 2. To what extent do victims perceive threat from being cyberstalked? What is the emotional and psychological impact of being a victim of cyberstalking?

It would be erroneous to assume that a victim of online crime does not experience similar levels of threat and functional impairment seen in those of offline crime (Kirwan & Power, 2011). Miller (2012) opined that cyberstalking can be equally distressing as physical stalking because the anonymity and time-space compression of electronic communication makes the threat of harm and intrusion an all-pervasive phenomenon in victims' lives. Anecdotal evidence indicates that some victims of cybercrime experience clinical syndromes such as Acute Stress Disorder (ASD) and Post Traumatic Stress Disorder (PTSD) (American Psychiatric Association

“ Cyberstalking can be equally distressing as physical stalking because the anonymity and time-space compression of electronic communication makes the threat of harm and intrusion an all-pervasive phenomenon in victims' lives. ”

[APA], 2000; Kirwan & Power, 2011; Petrocelli, 2005; Sheridan & Grant, 2007). The constellation of symptoms experienced includes heightened autonomic arousal, dissociative flashbacks or intrusive memories, and emotional numbing or avoidance of stimuli associated with the trauma.

In an anonymous British online survey on cyberstalking, the 2011 ECHO Survey by the University of Bedfordshire (Maple, Short, & Brown, 2011), 29.6% of respondents experienced PTSD symptomology. Also, fear (80.9%) and distress (95.6%) were the two most frequently reported emotional effects of cyberstalking. 34% of respondents feared damage to reputation, reflecting the public and exposed nature of cyber-victimisation (Maple, Short, & Brown, 2011). Thus, being a victim of cyberstalking is related to negative symptoms and trauma (Nguyen, Lee, & Spitzberg, 2012).

### 3. How do victims cope with cyberstalking?

Studies exploring the responses and coping efforts of victims mostly focus on offline stalking and university populations (Mishra & Mishra, 2013). Few victims of offline stalking engage in reporting behaviours (Fremouw, Westrup, & Pennypacker, 1997). The victim's typical response is to ignore the stalker.

### 4. What types of help-seeking avenues would students like to have available?

In Singapore, the recent Protection from Harassment Act 2014 creates a new offence of stalking, and extends existing protection from harassment to include online harassment behaviours. Previously, victims of offline harassment or stalking had sought recourse

under sections 13A and 13B of the Miscellaneous Offences (Public Order and Nuisance) Act (Cap. 184), and/or the Computer Misuse and Cybersecurity Act (Cap 50A) (Hee, 2013). At the time of data collection, the Protection from Harassment Act 2014 had yet to be tabled in Parliament, and the authors felt it would be useful to see the preferences of students' on help-seeking avenues. The group Working to Halt Online Abuse (WHOA) (2012) notes that victims are most likely to report the cyber-harassment to their Internet Service Provider (58%) followed by the police (41%) and lawyers (1%). Victims may also report to schools, web hosts, moderators, employers, family, and friends.

## METHODOLOGY

The study involved undergraduate students from two of the seven local universities in Singapore – University A (Study 1, N = 282) and University S (Study 2, N = 215) – and students from several Polytechnic schools (Study 3, N = 317), which are institutes of post-secondary education. An anonymous self-report survey was used that collected data on a battery of items: demographic variables (i.e. age, gender, and ethnicity), cyberstalking experiences, threat perception levels, post-traumatic symptoms, coping strategies, and help-seeking preferences.

Of particular value was the use of the Cyberstalking Victimization Questionnaire, a 17-item measure designed to assess the frequency of cyberstalking behaviours experienced by the individual (Hensler-McGinnis, 2008). Participants checked a “yes/no” option to indicate presence or absence of an experience. The measure was created in response to a lack of standardised measurement instruments for cyber-victimisation. Items were selected from the Cyber-Pursuit Questionnaire (Spitzberg & Cupach, 2000) and the Obsessive Relational Intrusion (Victim Short Form) questionnaire (ORI; Spitzberg & Cupach, 1997). Both are self-report measures of (cyber)stalking and pursuit behaviours received.



Table 1. Participants who reported experiencing cyberstalking behaviour

	Average Age (years)	Male	Female	Prevalence Rate
University A (n =78/282)	21.71	18	60	27.7%
University S (n=70/215)	21.37	13	57	32.6%
Polytechnic (n=176/317)	18.39	65	111	55.5%

## STUDY RESULTS

### Demographics and Cyberstalking Prevalence Rates

From University A, 78 out of 282 participants (27.7%) reported experiencing at least one form of cyberstalking behaviour. The average age was 21.71 years (Standard Deviation (SD) = 1.68), and 18 were males. From University S, 70 out of 215 participants (32.6%) reported experiencing at least one form of cyberstalking behaviour. The average age was 21.37 years (SD = 1.57), and 13 were males. From the Polytechnic sample, 176 out of 317 participants (55.5%) reported experiencing at least one form of cyberstalking behaviour. The average age was 18.39 years (SD = 1.10), and 65 were males. (Refer to Table 1)

### Cyberstalking Experiences

The findings from undergraduates were the same, in that the most frequent cyberstalking behaviour experienced was ‘sending excessively needy or demanding messages to you’. Cyberstalking acts were mostly characterised by the aggressor’s desire for more intimacy. As for the polytechnic sample, the most frequent cyberstalking behaviour experienced was ‘monitoring your online profiles, away messages, etc.’

### Threat Perception and Post-Traumatic Symptoms

In terms of threat perception, the findings across all three samples were similar, in that greater perception of threat was associated with higher post-traumatic symptomology. The only unique point was that with polytechnic students, the

males (M = 7.32, SD = 7.40) had significantly lower levels of threat perception compared to the females (M = 10.23, SD = 6.76),  $t(181) = -2.69$ ,  $p < .01$ .

In terms of post-traumatic symptoms, participants whose scores were beyond a cut-off point of 33 on the impact scale were indicated as exhibiting high levels of distress with probable post-traumatic stress disorder (PTSD). From University A, 10 participants had a total score of 33 and above. Of these, 3 were male and 7 were female. From University S, 3 participants had a total score of 33 and above. Of these, 2 were male and 1 was female. From the polytechnic sample, 13 participants had a total score of 33 and above. Of these, 4 were male and 9 were female.

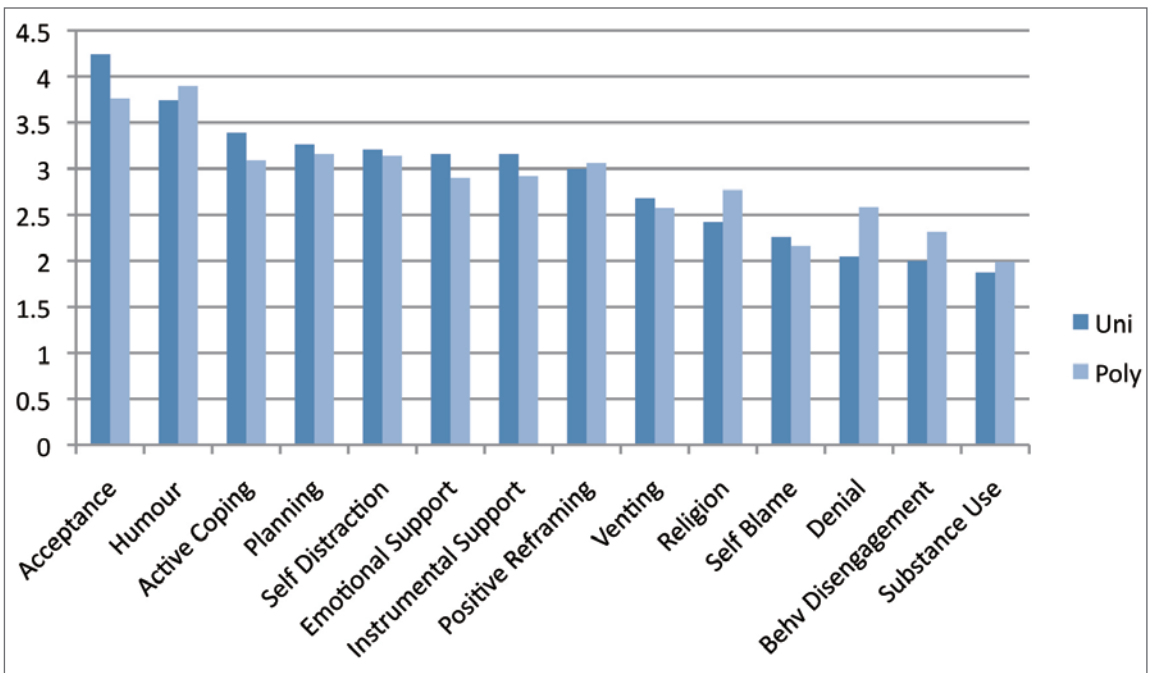
### Coping Strategies

In general, all victims of cyberstalking employed a range of coping strategies. The most commonly used coping strategy by undergraduate victims was Acceptance; the most commonly used by polytechnic students was Humour (i.e. making fun of the situation). Participants were unlikely to use potentially maladaptive coping methods such as substance use (i.e. use of either alcohol or drugs to make themselves feel better) or behavioural disengagement, where they either give up dealing with the issue or give up trying to cope. (Refer to Table 2)

### Help-Seeking Preferences

Participants were generally supportive and positive towards most of the items in the Help-Seeking Possibilities Scale.

Table 2. Coping strategies used by victims, in the order of usage preference



For undergraduates of both University A and University S, the top 3 statements that received the most support were: 'I think software should be made available, which will help stop the cyber-stalker from contacting the victim online', 'Websites educating individuals about cyberstalking should be made available to the public', and 'I think there should be a specific law in Singapore to deal with cyberstalking cases'.

The students of the polytechnic sample differed slightly as the top 3 statements that received the most support were: 'I think Internet Service Providers (ISPs) should assist in stopping the cyberstalker by blocking the stalker from contacting you', 'I think telephone service providers (TSPs) should assist in stopping the cyberstalker by blocking the stalker from contacting you', and 'I think there should be a helpline available for victims of cyberstalking and harassment incidents'.

All students held shared views in that they disagreed with the following statements: 'I

think having the police give a stern warning to the cyberstalker is enough to deal with the cyberstalker', 'I think that existing laws in Singapore are effective in dealing with cyberstalking', and 'I think there should be a law to deal with cyberstalking, but I am unwilling to testify in court'.

## DISCUSSION

This is the first Singaporean study related to cyberstalking and cyber-harassment in an emerging adult demographic of undergraduates and polytechnic students. Several findings will be discussed, with the aim of providing the Home Team with greater awareness, and to advise possible safeguard measures.

### Prevalence Rates Similar to Other Countries

The prevalence rates of cyberstalking (27.7% to 55.5%) were not unlike those found in international studies of cyberstalking. These numbers also indicate that cyberstalking is

experienced by a significant proportion of emerging adults; out of every 10 emerging adults, two to five would have experienced at least one form of cyber-victimisation behaviour. An interesting finding was that the sample of polytechnic students produced an exceptionally high prevalence rate of cyberstalking (55.5%) never before seen in other studies of electronic aggression. It is unknown whether this could have been explained by different ICT usage patterns or particularly violent and threatening victimisation experiences. This statistic warrants further investigation and study.

Because of the nature of our survey instrument, we were unable to get a response from participants who were unaware of their being cyberstalked or who preferred not to disclose their experience. As such, prevalence rates remain speculative.

### Cyberstalking to Achieve Greater Intimacy

As noted in current cyberstalking literature, information communication technologies (ICT) have become a vehicle for online surveillance and invasion of privacy (Finn & Banach, 2000; Spitzberg & Hoobler, 2002). The range and types of cyberstalking behaviours most frequently experienced by participants could be considered under the concept of 'obsessive relational intrusion' (Spitzberg & Cupach, 1998), where there is repeated unwanted pursuit by a person who desires or assumes an intimate relationship with the target. As observed in this study, the most frequent types of cyberstalking behaviours reported by young Singaporean adults usually implied a desire for greater intimacy by the perpetrator.

We noted that cyberstalking behaviours that breached offline-online boundaries (e.g. 'bugging', GPS tracking, device disabling) rarely occurred. It may be that perpetrators favoured cyberstalking behaviours that required less effort and cost. The types of cyberstalking behaviours performed generally required a minimal level of technological know-how (e.g. sending direct messages to the victim).

Few victims were threatened with having their electronic device disabled or their online personae hijacked. However, as there is a trend of greater technological expertise amongst younger generations of ICT-users, we postulate that future studies on cyberstalking in Singapore may yield growing prevalence of cyberstalking via device infiltration.

### Cyberstalking Creates Perceived Threat and Psychological Harm

Across the three samples, we found severe cases of post-traumatic symptomology that implied significant psychological impairment and probable PTSD. The effects of PTSD are wide, ranging from disruptions in personal functioning to fear of social interactions. Some examples include sleep disruptions (e.g. insomnia, nightmares), poor work performance (e.g. low concentration levels, difficulties in regulating emotions), poor interpersonal relationships (e.g. isolation, distrust in intimate relationships), and negative self-perception (e.g. sense of helplessness, low self-esteem). Without help, a minority of victims may live in the constant shadow of cyberstalking. It may also be that those affected individuals suffered extreme types of cyberstalking behaviour or perceived greater threat from being cyberstalked.

### Varied Coping Strategies

Our findings suggest that victims of cyberstalking tend to use a wide range of coping strategies. We also found age-related differences in coping strategies – undergraduates preferred acceptance measures whereas polytechnic students preferred humour as a coping strategy. We postulate that acceptance might be used to 'normalise the situation' and increase resilience to distress; humour could have been a strategy to help make light of a grave situation in order to reduce anxiety. Although both samples appeared to favour response-focused emotion-regulation strategies, we could not draw inferences about the types of coping strategies most likely beneficial or disadvantageous to the victim.

## Support for a Range of Preventive and Protective Efforts

As with the respondents in the annual surveys from 2000-2013, conducted by the US-based Working to Halt Online Abuse (WHOA), our participants were agreeable to a wide range of aid, from service providers to helplines to public education (WHOA, 2013a).

Our findings suggest that students support specific laws in Singapore to deal with cyberstalking cases. Prevention efforts (e.g. public campaigns, educational programmes) appear to receive positive support from the students. Across the three samples, it was also found that participants generally supported and desired greater accountability and action from stakeholders (i.e. telephone service providers and Internet service providers). In the 2013 cyber-stalking statistics from WHOA (WHOA, 2013b), the majority of the cases (68%) were resolved by contacting the Internet Service Provider or getting the victim to change his/her online profile information (e.g. email address and username). We cannot assume that positive response to help-seeking possibilities translates into actual uptake of services. However, the results of the study indicate that participants are generally open to various forms of aid and, if put in place, may serve to meet the needs of cyberstalking victims.

With the introduction of the Protection From Harassment Act 2014, criminal penalties and civil remedies are now available to resolve online stalking and harassment situations, particularly the more vicious and damaging cases. We postulate that legislation plays a dual role – not only does it provide restitution and recompense, but it also acts as a powerful norm that encourages society to exercise caution and self-regulation of online behaviour. Whether or not this would translate into local societal norms for more respectful online behaviour, this is an exciting and meaningful area of research that

future psycho-sociological researchers can look into.

## Study Limitations

As with all studies, we faced some limitations. Firstly, the use of a self-report survey. Participants may have been subject to response bias, in that their reporting of cyberstalking events could have been minimised to appear less like a victim of such an encounter. However, the study tried to minimise that by reassuring participants of their anonymity.

Secondly, the newly released DSM-5 (APA, 2013) has revised the conceptualization of PTSD, shifting it from the class of anxiety disorders to a new class of trauma and stressor-related disorders. In addition, the cluster of symptoms has been modified to improve diagnostic accuracy (Friedman, Resick, Bryant, & Brewin, 2011), bringing the clinical utility of the impact scale used into question. Regardless, the phenotype of PTSD remains similar across DSM-IV-TR and DSM-5. Hence the impact scale appears to remain a useful tool in measuring the severity of post-traumatic symptoms.

Thirdly, we only collected demographic data related to age, gender, and ethnicity. Thus, we were unable to explore other participant characteristics related to cyberstalking (e.g. sexual orientation). For example, Finn (2004) reported that non-heterosexual students experienced higher rates of cyber-harassment than their heterosexual peers. Furthermore, we did not manage to gather data about the types of and frequencies with which participants engaged in ICT. A recent study reported that computer use variables (e.g. time spent networking online) predicted the likelihood of cyberharassment (Lindsay & Krysik, 2012). Future studies should attend to other participant demographic variables and ICT usage patterns.

“ Participants are generally open to various forms of aid and, if put in place, may serve to meet the needs of cyberstalking victims.”

## CONCLUSION

Technology is a double-edged sword. It transcends the time-space continuum and allows for greater interpersonal connectivity. At the same time, ICT-mediated communication has also provided new territory for criminal victimisation. The data suggests that cyberstalking is a phenomenon that exists in Singapore and that it is a social issue in need of redress. The prevalence rates of cyberstalking in Singaporean emerging adults are not unlike those seen in other developed and highly digitised nations. Whether or not similar rates are seen in the Singaporean adult population remains unknown.

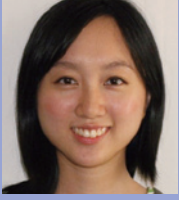
As greater levels of perceived threat were associated with more severe self-reported post-traumatic symptomology, the results of this exploratory research suggest that it is high time for intervention efforts at multiple levels of society. It would be prudent to take graduated responses to the many forms of cyberstalking, while taking into account the unique technological features of cyberspace that make it particularly vulnerable to harmful criminal activity – its borderless nature and the advantage of anonymity that it affords perpetrators. Additionally, the students have provided a representation of public response to proposed anti-cyberstalking measures. While the harassment law introduced in 2014 is a step in the right direction, this research adds to expert (MinLaw, 2013) and public opinion (REACH, 2013) that greater effort is needed to expeditiously put in place social and legal infrastructures to protect the safety of ICT users.

## REFERENCES

- Alexy, E. M., Burgess, A. W., Baker, T., & Smoyak, S. A. (2005). Perceptions of cyberstalking among college students. *Brief Treatment and Crisis Intervention, 5*, 279-289.
- American Psychiatric Association. (2000). *Diagnostic and statistical manual of mental disorders* (4<sup>th</sup> ed., text rev.). Washington, DC: Author.
- American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders* (5<sup>th</sup> ed.). Arlington, VA: American Psychiatric Publishing.
- Baum, K., Catalano, S., Rand, M., & Rose, K. (2009). *Stalking Victimization in the United States*. (NCJ 224527) Washington, D. C.: U.S. Department of Justice, Bureau of Justice Statistics. Retrieved from <http://www.ovv.usdoj.gov/docs/stalking-Victimisation.pdf>
- Capeller, W. (2001). Not such a neat net: Some comments on virtual criminality. *Social and Legal Studies, 10*, 229-242.
- Davie, S., & Liaw W. (2005, Sept 27). Schools act against students for 'flaming' teachers on blogs. *The Straits Times*. Retrieved from <http://www.international.ucla.edu/asia/article/30494?AspxAutoDetectCookieSupport=1>
- D'Ovidio, R. & Doyle, J. (2003). A study on cyberstalking: Understanding investigative hurdles. *FBI Law Enforcement Bulletin, 72*(3), 10-17.
- Finn, J. (2004). A survey of online harassment at a university campus. *Journal of Interpersonal Violence, 19*, 468-483.
- Finn, J., & Banach, M. (2000). Victimization online: The downside of seeking human services for women on the Internet. *Cyberpsychology & Behavior, 3*(5), 785-797.
- Foo, J. Y. (2014, Mar 1). Shouldn't we be above public shaming? *The New Paper*. Retrieved from <http://transport.asiaone.com/news/general/story/shouldnt-we-be-above-public-shaming?page=0%2C0>
- Fremouw, W. J., Westrup, D., & Pennypacker, J. (1997). Stalking on campus: The prevalence and strategies for coping with stalking. *Journal of Forensic Science, 42*, 666-669.
- Friedman, M. J., Resick, P. A., Bryant, R. A., & Brewin, C. R. (2011). Considering PTSD for DSM-5. *Depression and Anxiety, 28*(9), 750-769.
- Hee, J. J. (2013). Cyber crime in Singapore: An analysis of regulation based on Lessig's four modalities of constraint. *International Journal of Cyber Criminology, 7*(1), 18-27.
- Hensler-McGinnis, N. F. (2008). *Cyberstalking Victimization: impact and coping responses in a national university sample*. (Doctoral dissertation). Retrieved from ProQuest Dissertations and Theses database.
- IDA. (2013). *Telecommunications*. Retrieved from <http://www.ida.gov.sg/Infocomm-Landscape/Facts-and-Figures/Telecommunications#6>
- Kirwan, G., & Power, A. (2012). *The Psychology of Cyber Crime: Concepts and Principles*. Hershey, PA: IGI Global. doi:10.4018/978-1-61350-350-8

- Lim, Y. L. (2014, Feb 14). Crime rate at 30-year low in 2013 but cyber crimes on the rise: Police statistics. *The Straits Times*. Retrieved from <http://news.asiaone.com/news/crime/crime-rate-30-year-low-2013-cyber-crimes-rise-police-statistics?page=0%2C0>
- Lindsay, M., & Krysik, J. (2012). Online harassment among college students. *Information, Communication & Society*, 15(5), 703-719.
- Maple, C., Short, E., & Brown, K. (2011) Cyberstalking in the United Kingdom: an analysis of the ECHO pilot. University of Bedfordshire. National Center for Cyberstalking Research. Retrieved from [http://www.beds.ac.uk/\\_data/assets/pdf\\_file/0003/83109/ECHO\\_Pilot\\_Final.pdf](http://www.beds.ac.uk/_data/assets/pdf_file/0003/83109/ECHO_Pilot_Final.pdf)
- Miller, L. (2012). Stalking: Patterns, motives, and intervention strategies. *Aggression and Violent Behavior*, 17, 495-506.
- MinLaw. (2013). Combatting harassment, safeguarding Singapore – A summary of the Institute of Policy Studies' conference on harassment in Singapore on 18 November 2013. Retrieved from <http://www.mlaw.gov.sg/news/press-releases/ips-conf-summary.html>
- Mishra, A., & Mishra, D. (2013). Cyber stalking: A challenge for web security. In J. Bishop (Ed.), *Examining the concepts, issues, and implications of Internet trolling* (pp. 32-42). Hershey, PA: Information Science Reference.
- National Center for Victims of Crime. (2003). Cyberstalking. Retrieved <http://www.victimsofcrime.org/docs/src/source-summer-2003.pdf?sfvrsn=0>
- Nguyen, L. K., Spitzberg, B. H., & Lee, C. M. (2012). Coping with obsessive relational intrusion and stalking: The role of social support and coping strategies. *Violence and Victims*, 27(3), 414-433.
- Petrocelli, J. (2005). Cyber stalking. *Law and Order*, 53(12), 56-58.
- Poh, I. (2013, Dec 23). Singaporean jailed for stalking US singer online. *The Straits Times*. Retrieved from <http://news.asiaone.com/news/digital1/singaporean-jailed-stalking-us-singer-online>
- REACH. (2013, 26 Nov). Proposed harassment laws will apply even when offender is overseas. Retrieved from [https://www.reach.gov.sg/YourSay/DiscussionForum/tabid/101/mode/3/Default.aspx?ssFormAction=\[\[ssBlogThread\\_VIEW\]\]&tid=\[\[14191\]\]](https://www.reach.gov.sg/YourSay/DiscussionForum/tabid/101/mode/3/Default.aspx?ssFormAction=[[ssBlogThread_VIEW]]&tid=[[14191]])
- Roberts, L. D. (2009). Cyber-Victimization. In R. Luppini, & R. Adell (Eds.) *Handbook of Research on Technoethics* (pp. 575-592). Hershey, PA: Information Science Reference. doi:10.4018/978-1-60566-022-6.ch037
- Sheridan, L. P., & Grant, T. (2007). Is cyberstalking different?. *Psychology, Crime & Law*, 13(6), 627-640.
- Singapore Police Force Annual Crime Brief 2015. Retrieved from <http://www.spf.gov.sg/stats/crimebrief2015.html>.
- Spitzberg, B. H., & Cupach, W. R. (1997). Measures of obsessive relational intrusion. Unpublished manuscript. San Diego State University.
- Spitzberg, B. H., & Cupach, W. R. (Eds.). (1998). *The dark side of close relationships* (pp. 1-415). Mahwah, NJ: Erlbaum.
- Spitzberg, B. H., & Hoobler, G. (2002). Cyberstalking and the technologies of interpersonal terrorism. *New Media & Society*, 4(1), 71-92.
- WHOA. (2013a). *Comparison statistics 2000 to 2013*. Retrieved from <http://www.haltabuse.org/resources/stats/cumulative2000-2013.pdf>
- WHOA. (2013b). *2013 Cyberstalking statistics*. Retrieved from <http://www.haltabuse.org/resources/stats/2013Statistics.pdf>

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# Stopping Thefts on Board Aircrafts

By Krystle Chiang, Chee Ee Ling and Grace Teo  
Criminal Justice Division, Attorney-General's Chambers

## INTRODUCTION

Participation in crime is often postulated to be the result of an individual's response to incentives, mainly the expected payoffs from criminal activity, balanced against the costs, notably the probability of apprehension and the severity of punishment (Harbaugh, Mocan and Visser, 2011). It is widely assumed that the public pronouncement of punishment of an offender serves to deter others from similar behaviour. This is often referred to as 'general deterrence'. Punishment is therefore often meted out with the specific objective of communicating to a target population the fact that a criminal act is not worth the cost (Geerken and Gove, 1975).

The effectiveness of deterrent sentencing is thought to be directly proportional to the speed, severity and certainty of punishment (Geerken and Gove, 1975). A recent study reviewing the effect on deterrence on the offence of theft suggests that an increase in the probability of getting caught reduces one's propensity to steal, and the same is true for an increase in the size of the penalty (Harbaugh, Mocan and Visser, 2011). Experiments have shown that in some contexts, the elasticity of theft with respect to the size of the fine has been shown to be bigger than the elasticity with respect to the probability of getting caught (Harbaugh, Mocan and Visser, 2011). Furthermore, the impact of the certainty of getting caught is larger when the penalty is bigger. Similarly, the deterrent effect of the penalty is bigger when the probability of getting

“ Punishment is therefore often meted out with the specific objective of communicating to a target population the fact that a criminal act is not worth the cost. ”

caught is bigger (Harbaugh, Mocan and Visser, 2011). Research has also shown that the relative magnitude of estimates of the elasticities of burglary and larceny with respect to probability and severity of punishment indicate that burglars and thieves are risk avoiders (Ehrlich, 1973).

## DATA SOURCES

We obtained data directly from the Singapore Police Force and reviewed investigation papers relating to every solved

Theft On Board Aircraft (TOBA) case from 2011 to 2014. We believe this data to be highly reliable as they were obtained from admissions from persons who committed offences, or from highly reliable data records of airlines.

## THE LANDSCAPE OF TOBA OFFENCES FROM 2011 TO 2014

### Changes in TOBA rates

Figure 1 shows the number of reported cases and arrested TOBA offenders from 2011 to 2014.

According to the statistics provided by the Singapore Police Force, there was only one reported TOBA case in 2011. The following year saw a huge spike in reported cases at 43 reported cases and the number of reported cases peaked at 57 in 2013. In contrast, there were only 17 reported cases in 2014, reflecting a percentage decrease of 70% from the previous year.

There was a marked increase in the number of TOBA offenders arrested from 2011 to 2013,



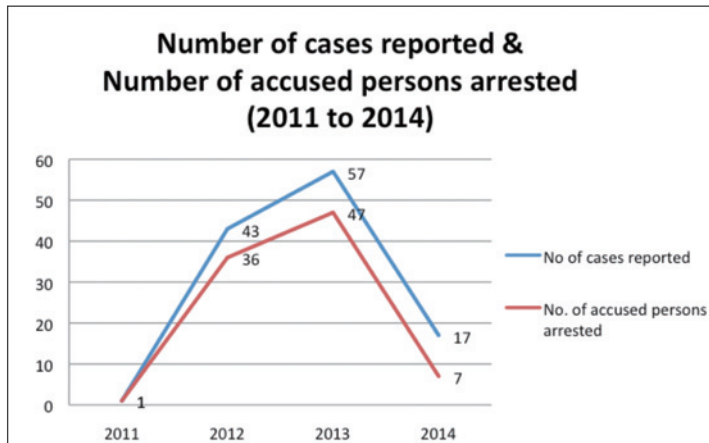


Figure 1. Number of reported cases and arrested offenders (2011 to 2014)

from only one in 2011, to 36 in 2012, to 47 in 2013. Seven TOBA offenders were arrested in 2014, reflecting a percentage decrease of 85% from the previous year.

Outcome of Cases

Figure 2 reveals an increase in the number of prosecutions from 2011 to 2014, and a decrease

in the number of accused persons not prosecuted from 2012 onwards.

In 2011, there were no prosecutions. In 2012, the number of prosecutions increased to 17 (47%). In 2013, the number of prosecutions rose to 38 (83%) and there were seven prosecutions in 2014 (100%). From 2011 to 2012, the Attorney-General’s Chambers (AGC) took a more lenient

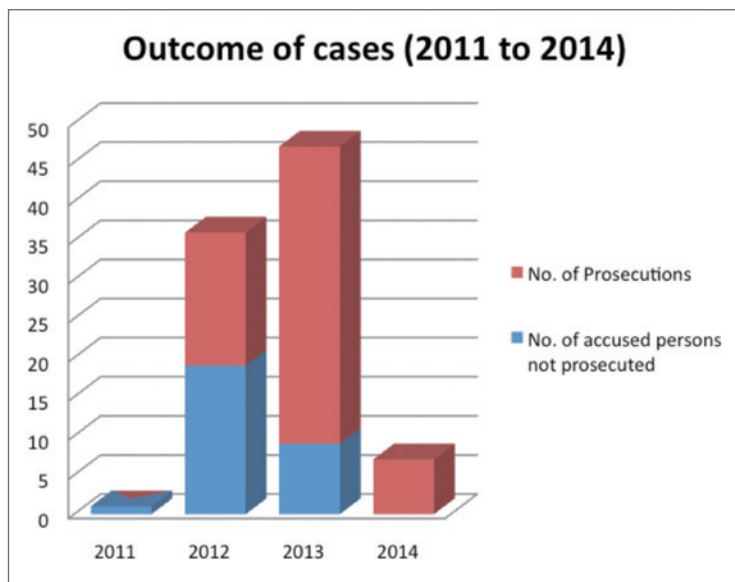


Figure 2. Outcome of TOBA cases (2011 to 2014)

view on taking action against TOBA offenders in cases where nothing of value was found missing from the bags of victims. The unabated rise in TOBA cases prodded AGC to review its position in 2012 and it decided to initiate prosecution so long as there was evidence of the accused person rummaging another person's bag with intent to steal, which was legally sufficient to constitute the offence of theft. This was done to send a deterrent message to potential offenders that when detected, there was a high likelihood that they would be caught, convicted and punished for their misdeeds. The prosecution rate

corresponded to the conviction rate as all TOBA suspects pleaded guilty to the charge they faced, and were convicted and sentenced accordingly.

### Profile of offenders

#### *Nationality*

A vast majority of TOBA offenders originate from China. Only a handful of accused persons apprehended were from other countries such as India, France, Indonesia and Bangladesh.



Figure 3. Map showing provinces in China where TOBA offenders originated from

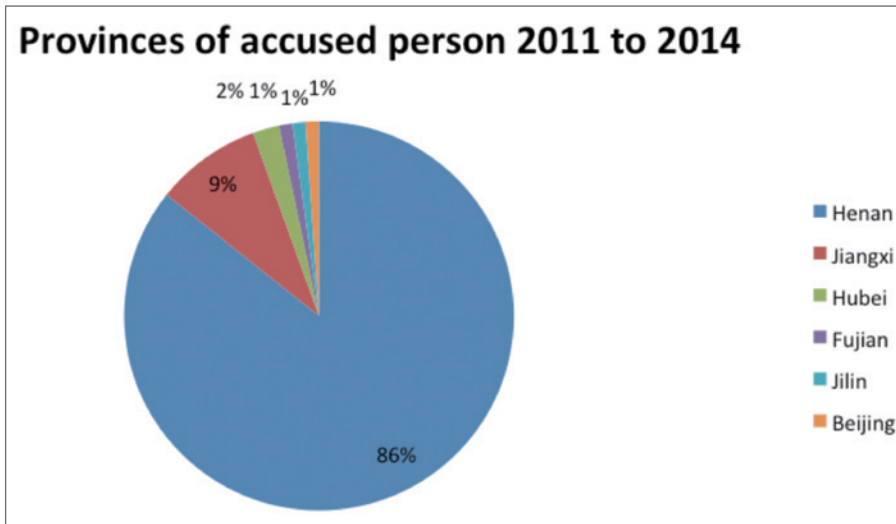


Figure 4. Provinces of origin of TOBA offenders (2011 to 2014)

Figures 3 and 4 show the provinces of origin of Chinese TOBA offenders.

Of the TOBA offenders from China, most originated from the province of Henan (86%), followed by Jiangxi (9%), Hubei (2%), Jilin (1%), Beijing (1%) and Fujian (1%). Most of the TOBA offenders who hailed from Henan were from Zhou Dang town in Luo Shan county.

**Gender and Age of Offender**

An overwhelming number of offenders in this study were male (99%). This corresponds with the general finding that males have a higher propensity to steal than females (Harbaugh, Mocan and Visser, 2011; Mocan and Rees, 2005).

Figure 5 shows the age-crime curve of TOBA offenders. It shows a peak age of 40-44.

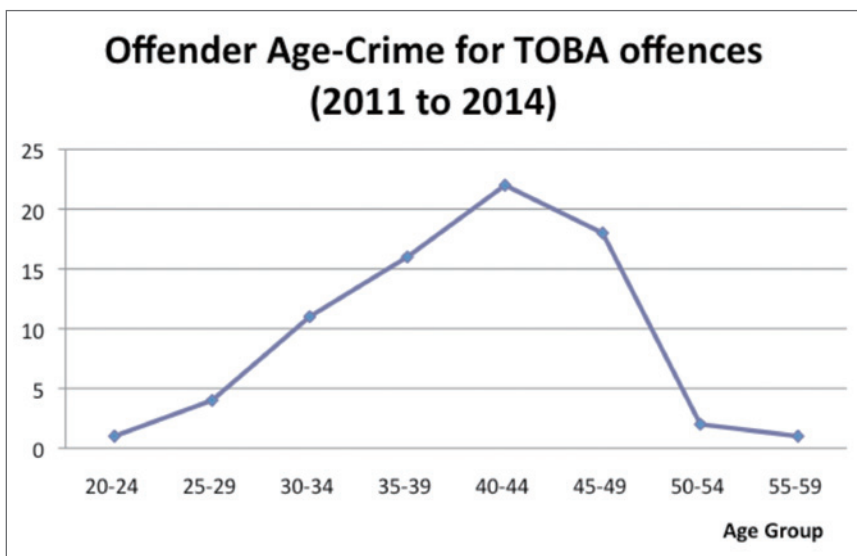


Figure 5. Age-crime profile of offenders (2012 to 2014)

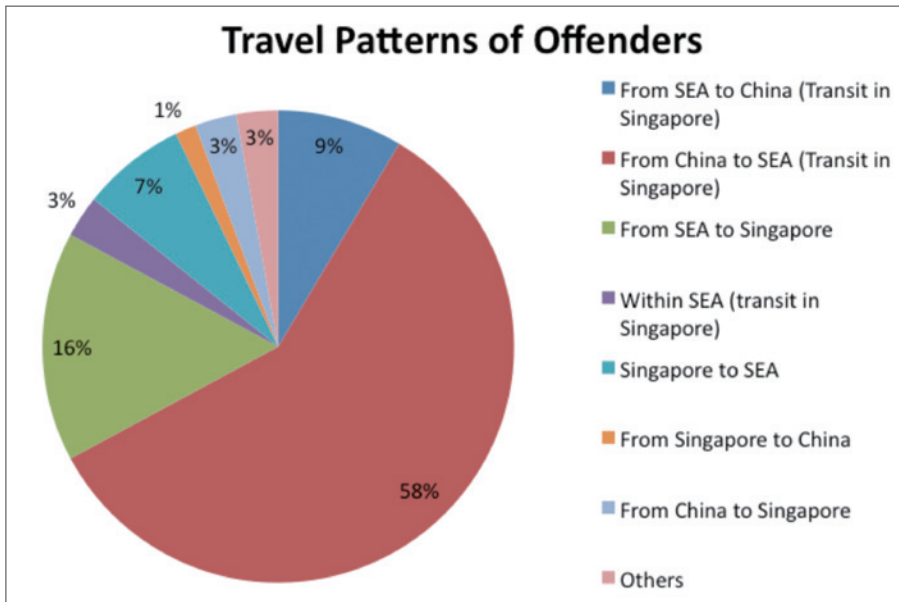


Figure 6. Travel patterns of offenders

**Modus Operandi**

Figure 6 shows the travel patterns of TOBA offenders. TOBA offenders usually travelled as passengers on round-trip flights from China, Macau or Hong Kong, to Singapore, and usually transited in Singapore for a day or less on each occasion before leaving for other South-East

Asian countries, including Cambodia and Indonesia.

Figure 7 shows the items commonly targeted by TOBA offenders. The modus operandi of TOBA offenders principally consisted of removing bags from the overhead compartments of the aircraft while in flight and rummaging through them for

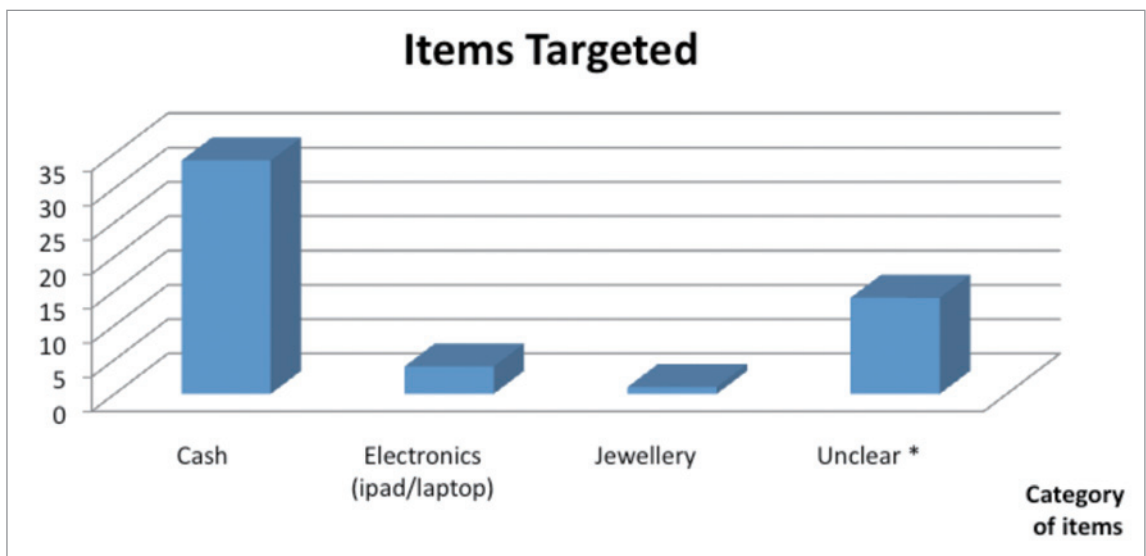


Figure 7. Items targeted by offenders

cash, before returning these bags to the overhead compartments they were taken from. While there were a few cases where items other than cash were stolen, these are outlier cases generally involving offenders from countries other than China. There were also cases where bags were removed and rummaged through with no clear indication as to what items were being searched for. In these cases, we believe that money was likely the targeted commodity, given that other features of these cases corresponded with the prevailing modus operandi.

In a substantial number of cases, offenders were also witnessed changing their seats during the course of the flight. This was a tell-tale sign of a TOBA offence in progress which law enforcement officers publicised to airline crew.

There was also evidence that these offenders worked in pairs. According to witnesses, the offenders made numerous trips to the toilet, and where pair activity was suspected, making such trips in close succession, one after another. One person would usually be responsible for stealing cash from a bag in the overhead locker, and another person for holding on to the loot. The first person would remove baggage stowed away in an overhead compartment and bring it back to his seat or a seat away from the overhead compartment to rummage for cash. Once he was done with rummaging through the baggage, he would return it to the overhead compartment. If he found cash, he would pass it to his partner, so that if questioned, the loot would not be found in his possession. In some cases, the police found cash deposited in compartments of the aircraft toilet, a sign that the criminals abandoned the loot for fear of arrest.

Given the commonality of modus operandi, we postulate that there is a syndicate behind this spate of thefts. In particular, it is likely that TOBA offenders from Henan province were given advice on

how to commit the offences, and in many cases had conspired to commit the offences prior to boarding the aircraft.

## POSSIBLE REASONS FOR THE DROP IN TOBA CASES

2011 to 2013 saw an increasing trend in the commission of TOBA offences. However, 2014 witnessed the reversal of this trend, with only 17 reported cases. This was a significant decrease from the 57 cases reported in 2013. While the decline in the number of reported cases cannot by itself be conclusive of lesser offending, we have assumed for the purposes of this study that there has been no variation in reporting rate from 2011 to date. We believe this to be a reasonable assumption as there is no reason to suppose any change in the general reporting rate of TOBA offences within a short space of time. In reality, there might have been an increase in the reporting rate, given the heavy coverage of such cases by the local media.

We now briefly consider some possible reasons for the change in the number of offences reported in 2014.

### *Increased severity in penalty*

In keeping with deterrence theory, AGC sought, in prosecuting a TOBA case in July 2013, a deterrent sentence to arrest the alarming upward trend of TOBA.

“It is likely that TOBA offenders from Henan province were given advice on how to commit the offences, and in many cases had conspired to commit the offences prior to boarding the aircraft.”

The increase in the sentencing benchmark occurred in the case of *PP v Yue Liangfu* (‘Yue’), where the prosecution sought a deterrent custodial sentence of 12 months’ imprisonment to address the significant upward trend in TOBA cases in the past two years. In its address to the court, the prosecution highlighted the particularly egregious nature of such offences and the real possibility of syndication. Given the unabated

rise in the commission of the offences and the particularly egregious nature of TOBA offences, the prosecution submitted that a substantial imprisonment in excess of the then existing benchmark would deter would-be offenders from perpetuating such crimes.

On 23 July 2013, then Senior District Judge See Kee Oon (“the Judge”) imposed a sentence of nine months’ imprisonment and issued written grounds to justify his decision. The Judge stated that he was in full agreement that the considerations raised by the prosecution merited a reappraisal of the sentencing norm and stated that nine months’ imprisonment would be the starting point for such offences, which was triple that of the previous sentencing range. He also emphasised that should there be clear evidence of syndication, group activity or other relevant aggravating factors, the appropriate sentence would be in the range of 12 months’ imprisonment.

The number of reported cases only started falling around the start of 2014 as TOBA offences continued to be reported in the second half of 2013, even after the increased sentence came into effect.

The downward trend from 2014 is consistent with the hypothesis that the increased severity in the penalty will deter like-minded offenders. The relatively late onset of the decline in the reported cases could be attributable to the fact that Yue and the others sentenced after him were released from prison and repatriated to China only after 9 December 2013. We postulated earlier that these TOBA offenders could have been given advice prior to their boarding the aircraft and were engaged in a conspiracy. By the same token, it is reasonable to assume that upon the return of the offenders, others came to know of the high benchmark sentences for such offences and were deterred from taking the risk.

“ Hofer and Tham (1989) found that knowledge is passed down by word of mouth from older, more criminalised counterparts within certain segments of society, who from experience know the risks. ”

Waldo and Chiricos (1972) argued that the actual level of punishment available for any crime might be irrelevant as a deterrent if citizens understand or believe that courts are unwilling to impose harsh penalties. Harsh statutory penalties would also have little deterrent effectiveness if potential offenders perceive little chance that the courts will invoke them. Not surprisingly, the expectation that arrest or maximum penalties upon conviction would be certain for oneself appears related to lower levels of larceny.

In all but two cases subsequent to Yue, every TOBA offender prosecuted and convicted was sentenced to at least nine months’ imprisonment. [Of the two exceptions, the accused in *PP v Zhu Kaiming* was charged with attempted TOBA and sentenced to 22 weeks on the basis that his crime was a mere attempt. In *PP v Guo Yonglin* (“Guo”), the learned District Judge sentenced the offender to eight months’ imprisonment instead of nine months’ imprisonment as he found the offender’s conduct less culpable than Yue who had initially claimed trial and had only decided to plead guilty after he was confronted with a video recording catching him in the act. In contrast, the offender in *Guo* admitted to the crime immediately upon arrest.]

In cases where there was clear evidence of pair activity, syndication or where the items stolen were of high value, sentences above nine months and up to 18 months’ imprisonment were imposed. This signalled the court’s willingness to

invoke deterrent penalties for these offences.

Still, it is the perceived risk of detection and punishment rather than the objective risk that influences an individual’s propensity to commit crimes (Hofer and Tham, 1989). It is therefore imperative that potential TOBA offenders perceive the risk of severe punishment for themselves. That is why in order to be maximally effective or successful, a system of deterrence

must transmit its message to all potential offenders (Geerken and Gove, 1975).

To this end, Yue was reported in the local newspapers with the enhanced sentence heavily emphasised. In the wake of the judgment, the news of the enhanced sentence was also disseminated to China.

Potential TOBA offenders could have also been informed of the enhanced sentence through word of mouth. Hofer and Tham (1989) found that knowledge is passed down by word of mouth from older, more criminalised counterparts within certain segments of society, who from experience know the risks. Accused persons hailing from Henan have shared how they were introduced to the criminal lifestyle of committing TOBA by their compatriots. By their accounts, these introductions typically took place in underground gambling dens and usually after they had incurred losses at the gambling table. If it is indeed true that the spurt in the commission of such cases by Henan natives was due to a provincially held belief that committing TOBA was profitable, the decrease in the commission of such crimes might also be attributable to publicity of the deterrent sentence by word of mouth. This would explain why the number of reported cases only started falling significantly after the release of Yue and others sentenced after him. As at 31 December 2014, 26 TOBA offenders sentenced post-Yue had been repatriated on completion of their prison sentence. Out of these 26 offenders, 21 were from Henan.

### *Certainty of detection*

At the same time, the increased vigilance of flight providers and their passengers could have enhanced the rate of detection of TOBA offences.

The fact that Yue and other TOBA cases were heavily reported in the local media helped to raise awareness of the TOBA problem among the general public. In seven of the cases in 2012 and eight of the cases in 2013, witnesses were noted to have paid attention to the actions of the

accused because they had read about such thefts in the newspapers. Some of the witnesses were auxiliary police officers who were deployed to keep a lookout.

As some of these revelations were made before Yue was decided, it may be assumed that the public is even more aware of the TOBA issue now given the substantial news coverage of Yue and the cases subsequent to it.

Since Yue, air crew have also undergone training to equip themselves with the knowledge and skills necessary to deal with TOBA offences. Now that flight providers and their passengers are more educated about TOBA, potential offenders will have to adapt their modus operandi to evade detection.

## FOLLOW-UP RESEARCH

In all solved cases to date, the modus operandi was largely the same. Our study is however, limited by the fact that there have been unsolved cases where no arrests were made. In the absence of available data, we are unable to comment on whether these cases were unsolved due to the adaptation of modus operandi or otherwise. We would need to monitor this aspect in order to determine how TOBA offenders are responding to the increased certainty of detection. We will also continue to monitor this time series to ascertain if the decline in reported TOBA cases is a statistical abnormality.

## REFERENCES

- Erlich, Isaac. (1973). "Participation in Illegitimate Activities: A Theoretical and Empirical Investigation" *Journal of Political Economy*, Vol. 81, No. 3 (May - Jun., 1973), pp. 521-565
- Geerken, Michael R. and Gove, Walter R. (1975). "Deterrence: Some Theoretical Considerations", *Law & Society Review*, Vol. 9 No. 3 (Spring, 1975), pp 497-513.
- Harbaugh, William T., Mocan, Naci H. and Visser, Michael S. (2011). "Theft and Deterrence", Working Paper 17059. Available from <http://www.nber.org/papers/w17059>

Hofer, Hans von. and Tham, Henrik (1989). "General Deterrence in a Longitudinal Perspective. A Swedish Case: Theft, 1841-1985", *European Sociological Review*, Vol 5, No.1 (May, 1989), pp 25-45.

Mocan, Naci H. and Rees, Daniel I., "Economic Conditions, Deterrence and Juvenile Crime: Evidence from

*Micro Data*" *American Law and Economics Review*, Vol. 7, No. 2 (Fall 2005), pp. 319-349

Waldo, Gordon P. and Chiricos, Theodore G. (1972). "Perceived Penal Sanction and Self-Reported Criminality: A Neglected Approach to Deterrence Research" *Social Problems*, Vol. 19, No 4 (Spring, 1972) pp 522-540.

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## ACKNOWLEDGEMENTS

The authors would like to thank the Airport Police Division of the Singapore Police Force for their invaluable support and assistance, in particular, AC Sam Tee, DSP Patrick Lim, SSSGT Koh See Yong, Ms Siti Nurjannah and Ms Geraldine Ng.

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# The SCDF's Heavy Urban Search and Rescue Certification Journey

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## INTRODUCTION

The Singapore Civil Defence Force (SCDF) is Singapore's national authority handling emergency requirements for peacetime and during major disasters. It is also responsible for the provision of firefighting, rescue and emergency ambulance services. The SCDF Operation Lionheart contingent was formed in 1990 to render humanitarian assistance to neighbouring countries during major disasters. The SCDF has since bolstered its Urban Search and Rescue (USAR) capabilities to provide assistance to neighbouring countries during major disasters such as earthquakes where victims may be trapped underneath fallen debris and collapsed structures. To date, the Op Lionheart Contingent has been deployed for 16 overseas humanitarian missions, including to Kathmandu, Nepal, in April 2015 when the country was hit by a massive earthquake measuring 7.8 on the Richter scale.

“To date, the Op Lionheart Contingent has been deployed for 16 overseas humanitarian missions, including to Kathmandu, Nepal, in April 2015 when the country was hit by a massive earthquake measuring 7.8 on the Richter scale.”

To align with United Nations guidelines on rendering assistance during a major disaster, SCDF embarked on the INSARAG External Classification (IEC) exercise in 2008. INSARAG, which stands for International Search and Rescue Advisory Group, is a non-political, inter-government network of disaster managers, government officials and USAR practitioners operating under the umbrella of the United Nations. Since its establishment in 1991 to ensure effective and efficient relief response to disasters, INSARAG has developed a worldwide network

of USAR teams. It has also made significant progress in developing an internationally accepted methodology for the coordination of international USAR teams to assist during collapsed structure emergencies and to maintain a minimum standard for USAR assistance. Significantly, it has established the INSARAG external classification system, which certifies USAR teams according to three levels of capacity – light, medium and heavy.

The Operation Lionheart Contingent was certified as a Heavy USAR Team in 2008 after a gruelling 36-hour exercise. Heavy USAR teams have the operational capability to conduct difficult technical search and rescue operations in structural collapse incidents, particularly those involving infrastructure reinforced with structural steel. The Heavy USAR team is capable of providing effective assistance in the event of a sudden onset of collapse involving multiple reinforced concrete structures, typically found in urban settings.

The Lionheart Contingent is the first team in the Asia-Pacific region and the seventh in the world to attain the highest level of classification in terms of operational capability. Under INSARAG's rules, it was required to undergo reclassification, known as the INSARAG External Reclassification (IER), on the 5th calendar year upon attaining classification. Based on this requirement, SCDF Operation Lionheart Contingent was due for reclassification in 2013.

## WHY CLASSIFICATION MATTERS

The INSARAG guidelines aim to provide a methodology for dealing with the sudden onset of disasters involving large-scale structural collapse. It outlines the role of the United Nations in assisting the affected countries with on-site coordination. The methodology provides a process for preparedness, cooperation, and coordination of all providers of humanitarian assistance. It is not an authoritative instruction, but a set of detailed recommendations that are based on the collective experiences of its member states and organisations that have existing national USAR capability, and have responded to major national and international USAR incidents. As a living document, it is constantly being improved with lessons learnt from major international USAR operations. It is also the reference document for USAR capacity building at all levels.

The importance of these guidelines was fully acknowledged when it was endorsed by the UN General Assembly Resolution 57/150 of 16 December 2002 on 'Strengthening the Effectiveness and Coordination of International USAR Assistance'. The UN Assembly endorsed the INSARAG Guidelines as the principal reference for the coordination of international USAR response.

The INSARAG community acknowledges the importance of providing rapid professional USAR support during disasters. In an effort to achieve this desired outcome, the Community developed the INSARAG External Classification (IEC) and INSARAG External Reclassification (IER) framework and requirements. These two requirements form the INSARAG Classification System, which was unanimously endorsed by the INSARAG Steering Group (ISG). The ISG, which includes representatives from the regional groups and the International Federation of Red Cross and Red Crescent Societies, develops policy and is responsible for providing the strategic direction for INSARAG.

The IEC has proven to be very successful. It is one of the few measurable humanitarian response resources which affected countries can draw upon in sudden onset emergencies e.g., earthquakes. Indeed, many classified teams have been mobilised and deployed for such disasters over the last few years and have been proven to make a real difference in saving lives during these situations. Recognising its importance, many countries have recognised the need for their national USAR team to be developed, trained and deployed in line with these guidelines. Correspondingly, there has been an increasing demand by the global USAR teams to undergo the IEC process. As of end November 2015, there were 42 classified teams spanning across the three INSARAG regions.

## PREPARING FOR THE RE-CERTIFICATION PROCESS

### Review of existing capabilities and processes

Preparations for the reclassification exercise began in earnest in mid-2012. A two-fold approach was taken to prepare for the exercise. First was the conduct of a major review of the existing processes. The review was conducted with the aim of refining and enhancing the entire operating structure, procedures, mechanism and operational capabilities in terms of operating resources, skills, competencies and technology. The review factored in the key findings and lessons learnt from the IEC conducted in 2008 and the multiple overseas deployments undertaken since that first certification exercise.

The first item to be reviewed was the existing 55-strong contingent structure. From the numerous overseas deployments, it was observed that although the existing structure was able to fulfil the deployment requirements, the constraints and limitations encountered could have compromised the efficiency and effectiveness of the entire rescue operation at a disaster site. Enhancements were thus made to increase the contingent's search and rescue capacity and capabilities, along with a communication support module to provide immediate assessment and coordination capabilities to any United Nations Office for the Coordination and Humanitarian Affairs (UN OCHA) team deployed to the site. The Lionheart team's capability to render hazardous assessment at the disaster site was further expanded.

## INSARAG EXTERNAL RECLASSIFICATION (IER) REQUIREMENTS

Critical to IER requirements is the appointment of a mentor by the Field Coordination Support Section of the UN Office for the Coordination of Humanitarian Affairs. The mentor provides a different and yet valuable perspective to the team seeking reclassification as to how the goal can be best attained.

In the IER checklist, there are a total of 18 broad categories comprising 134 items which a classified USAR team must fully comply with in order to pass the reclassification requirements. The team undergoing this exercise must demonstrate full compliance with all the items through the submission of a written Portfolio of Evidence providing documented evidence to demonstrate that the USAR team has been developed in accordance with the INSARAG Guidelines and has adopted the INSARAG methodology. Twelve months prior to the date of reclassification, the team undertakes a comprehensive presentation which includes the show of documents and records as evidence. To complete the overall requirements, the USAR team will also be subjected to a ground deployment exercise lasting 36 hours.

Existing Standard Operating Procedures (SOPs) was also reviewed. Processes, procedures and arrangements with the key agencies and partners were refined and updated. Paramount to this was the air transport support provided by both the military and civilian partners.

To ensure that the skills currency and competencies of the rescuers are always maintained, the SCDF regularly sends commanders and rescuers for further training and certification courses, both locally and overseas, in the various specialised skill areas. This includes participation in various overseas rescue skills competitions and rescue exercises, conducted by INSARAG and other regional entities.

Equipment review is also regularly undertaken, where older equipment is replaced with more reliable, powerful and effective ones, utilising the latest know-how and technology to produce effective output during an operation. An example of this was the acquisition and deployment of the latest life detection equipment, cutting and breaking tools and confined space ventilation systems. In the area of safety for the rescuers, a new USAR suit was also introduced that provides personnel with better ergonomics and overall safety, both from sharp objects and hazardous substances.

To stress test the entire system and mechanism, regular table-top exercises (TTX) and ground

deployment exercises (GDY) are also conducted. This entails surprise recall and the mobilisation of rescuers through the Automated Recall and Mobilisation System (ARMS).

The second major preparation undertaken for the IER process was the formation of the Exercise Management Structure responsible for overseeing the entire journey towards the attainment of the IER classification status. In essence, this committee was responsible for planning, preparing, monitoring and conducting the entire reclassification exercise. It ensured that the relevant documents were reviewed, updated and promptly submitted to the Field Coordination Support Section of the UN OCHA. In addition, engagement programmes were also designed to ensure that the assigned mentor and the team leader of the classifiers were regularly engaged before and during the conduct of the reclassification exercise.

## THE EXERCISE

The exercise began with a briefing given to the Classifiers - the group of qualified international INSARAG personnel chosen by the UN OCHA to assist in the assessment of the entire certification process, looking in particular into areas such as Operations, Medical, Logistics, Administration and Safety. The briefing covered the SCDF's emergency management system, its response structure and mechanism and the Operation Lionheart operating and deployment



*SCDF USAR team going through immigration and custom clearance procedures.*

procedures. This was followed by the activation of the SCDF Lionheart Contingent that was on standby. As part of the standing procedures, the standby personnel were given an hour to report back to the base camp for equipping, briefing and onward deployment to the requesting country. The Operation Lionheart team was also subjected to the customs and immigration clearance procedures at both Singapore and the receiving country.

A USAR team's responsibility includes setting up a Reception and Departure Centre if it is the first arriving international USAR team. For the purpose of the exercise assessment, the SCDF Lionheart Team played the role of the first international team to arrive at the disaster site and it thus established the Reception and Departure Centre to facilitate the arrival and departure of subsequent USAR teams and other humanitarian entities in and out of the affected

country. The SCDF team also established the On-site Operations Coordination Centre, whose main purpose is to assist the Local Emergency Management Authority with the coordination of international and national USAR teams as well as establishing inter-cluster coordination mechanisms at the disaster site.

To gain insight into the magnitude of the disaster and the actions taken by the local authority, a briefing was given by LEMA to the Contingent Commander of the USAR team and his key staff officers. During this briefing, the Contingent was assigned to a specific area of operations requiring immediate search and rescue assistance. While the Contingent Commander and his key officers were briefed by LEMA, the rest of the team established their camp at the Base of Operations. This was where the Contingent would rest, plan, prepare and launch their search and rescue operations from.

The next part of the exercise was to showcase the team's capabilities and capacity to operate simultaneously at two disaster sites. The objective of the exercise was to test and stretch the Contingent's work and rest system as well as their resource management skills.

The exercise ended after the Classifiers were satisfied that the Contingent had successfully demonstrated and delivered on all the assessment requirements. This was attained close to the 36-hour deployment deadline.



*SCDF USAR teams conducting rescue operations at 2 disaster sites simultaneously*

## KEY TAKEAWAYS FROM THIS JOURNEY

The successful conduct of the reclassification exercise emphasised the importance of a few fundamentals. Foremost was the element of commitment by the SCDF management to the INSARAG systems and requirements. Resources, support and guidance were provided to ensure the end objective was achieved. Second was the early start that SCDF gave itself. SCDF started the process some eighteen months before the proposed reclassification date. This timeline enabled SCDF to constantly review and refine our entire approach as new developments, situations and observations were made along the way without losing sight of the ultimate objective. Significant to this was the implementation of a thorough and detailed planning process and mechanisms to track, monitor and manage the overall progress of the two key requirements: firstly to review and revise existing processes for the reclassification exercise, and secondly, to plan and prepare for the conduct of the exercise itself using the IER checklist requirements as a guide.

This is where the formation of a committee to oversee these requirements was critical. Under the leadership of the chairman, the committee mapped out, managed and drove the overall agenda. Roles and responsibilities of personnel were clearly defined and coordination mechanisms between the working groups were established. This helped to ensure better coordination and integration of tasks and responsibilities amongst the team. Regular meetings and dialogue sessions were held to facilitate coordination and the sessions were also used by the chairman to track, monitor, and provide the necessary guidance and decisions. Significantly, these coordination meetings and engagement with the key agencies and departments were critical to the overall acceptance and support of the revised plan and SOP. These factors greatly facilitated and synchronized inter-agency support and response that resulted in a seamless operation.

The Table Top (TTX) and Ground Deployment exercises (GDY) also proved to be an excellent platform for all the plans, procedures and systems documented for the reclassification to be stretched, tested and validated. In fact, such exercises prompted the committee to review and refine the approach to the entire reclassification exercise preparations and at the same time put in the necessary efforts and resources to rectify gaps identified.

The close working coordination between the SCDF personnel with the staff of the Field Coordination Support Section (FCSS), Classifiers and Team Mentor during the preparation and the execution stage was also a critical factor in the success of the classification journey. Through such engagements (via email, phone calls and video/teleconferences), many issues and matters were deliberated, discussed and clarified. This helped all parties involved to attain better clarity and understanding of the overall requirements and thus chart a smoother path to the final objective.

Last but not least, the experiences the SCDF gained from the IER journey have been invaluable. The lessons learnt were shared at the various INSARAG platforms, from the regional meetings to the team leaders' workshops. Some



*SCDF Lionheart Contingent is certified as a INSARAG Heavy Rescue Team.*

of the valuable pointers such as the need to factor in costing considerations and the importance of focusing only on the key areas to be tested (and thus minimise the costs and the numbers of Classifiers to be involved in the exercise) were adopted in the new INSARAG Guidelines 2015.

## BENEFITS FOR THE SCDF AND THE HOME TEAM

The experiences gained and the reaffirmation of the SCDF USAR capabilities surely place the SCDF and the Home Team on a global platform, especially in the area of disaster management, where there has been increasing global interest in enhancing capabilities to mitigate incidents as well as strengthening international/regional disaster management mechanisms to deal with large scale disasters. SCDF has already demonstrated that we possess expertise in the area of disaster management as a result of numerous overseas missions and training programmes. Hence, it is useful for the SCDF to leverage our expertise to establish a larger footprint in the international arena to advance SCDF's and Singapore's interests. Our strategic intent is to assist the affected countries in tandem with Singapore's Humanitarian Assistance and Disaster Relief efforts, and to engage with international partners through capacity building projects to reduce disaster risks.

On the whole, our INSARAG capabilities will further help us to attain three strategic thrusts: (a) to develop our capabilities and inoculate ourselves from disaster; (b) shape opinions and protect our interests at international fora and (c)

export our expertise under the World.Singapore initiative.

Being the first Urban Search and Rescue team to be accorded the UN INSARAG Heavy USAR classification in the Asia Pacific Region in 2008 and subsequently to be re-certified in 2013, SCDF has gained significant recognition as a leader in the Urban Search and Rescue areas. This opens doors to the SCDF and its Academy to provide training and consultancy services to countries such as the Abu Dhabi Police, the Royal Oman Police and Civil Defence of Saudi Arabia. Presently, we are also mentoring the Malaysian Urban Search and Rescue Team as it embarks on its INSARAG classification journey.

## CONCLUSION

The SCDF Operation Lionheart Contingent has come a long way in the last 25 years. These achievements would not have been possible without the commitment, dedication, professionalism and convictions of our officers. This is further reinforced by the strong support and partnership provided by the INSARAG leadership, INSARAG Community and the UN OCHA. Thus, in the spirit of UN General Assembly resolution 57/150 on "Strengthening the effectiveness and coordination of international urban search and rescue assistance" and supporting the INSARAG mandate to improve emergency preparedness and facilitate capacity building, it is hoped that the sharing of our experiences will inspire teams/countries to continue developing their national USAR capacities and capabilities.

“ The reaffirmation of the SCDF USAR capabilities surely place the SCDF and the Home Team on a global platform, especially in the area of disaster management, where there has been increasing global interest in enhancing capabilities to mitigate incidents as well as strengthening international/regional disaster management mechanisms to deal with large scale disasters. ”

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SAC Anwar has led SCDF teams to assist in the post-earthquake search and rescue operations on the island of Nias, Indonesia in April 2005 and in Yogyakarta in Central Java in August 2006. He also represented SCDF in the United Nation International Search and Rescue Advisory Group (INSARAG) and United Nations Disaster, Assessment and Coordination (UNDAC) Advisory Board. He is a member of the INSARAG Guidelines Review Group reviewing the validity and currency of the UN INSARAG Guidelines, representing SCDF and the Asia Pacific region. In August 2014, SAC Anwar was awarded the National Day Public Administration Award (Silver) for his contributions to the Force.

# Using Behavioural Insights To Encourage Public Participation In The Community Emergency Preparedness Programme

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## INTRODUCTION

The Singapore Civil Defence Force (SCDF) typically conducts a post-fire blitz campaign after a significant fire in a residential apartment block, i.e. a fire where there is serious injury or death involved, or significant alarm was caused to residents. The blitz comprises a small exhibition at the foot of the building and door-to-door visits to educate residents about fire safety. Residents are also encouraged to participate in SCDF's Community Emergency Preparedness Programme (CEPP), which is a modular, instructional, face-to-face public education programme offered free-of-charge at designated SCDF divisional headquarters throughout the year. The programme aims to equip participants with the skills to deal effectively with emergency situations when they arise, while waiting for first responders to arrive. It comprises five modules: basic first aid, cardio-pulmonary resuscitation (CPR) and automated external defibrillator (AED), fire safety and casualty evacuation, emergency procedures and terrorism. Each module is designed to impart theoretical knowledge and provide practical training. Participants have the flexibility to complete the five modules in a single day, or over several days.

Presently the CEPP, though well-subscribed to, is mostly attended by organised groups from schools and companies and to a much lesser extent by members of the public who pre-register to attend. To increase the take-up rate, the Research

& Statistics Division (RSD) of the Ministry of Home Affairs and the SCDF, in collaboration with Harvard University's Behavioural Insights Group, proposed to modify the post-fire blitz campaign using Behavioural Insights (BI). From January to November 2014, the team conducted a Randomised Controlled Trial to test the effectiveness of the BI modifications, the objective being to encourage residents whose block had just encountered a significant fire to participate in the CEPP.

## DESIGNING BEHAVIOURAL INSIGHTS MODIFICATIONS

### Understanding attitudes towards CEPP and emergency preparedness (EP)

To understand why ordinary Singaporeans may not take the initiative to register for the CEPP, the team held a discussion with officers from the SCDF's Volunteer & Community Partnership Department (VCPD/SCDF) which yielded the following plausible reasons:

- a. Lack of issue salience. Singapore does not experience any natural disasters or high frequency of emergencies. The government is widely regarded as very efficient and its emergency services enjoy a high degree of confidence from the public. These collectively lead people to heavily discount the likelihood of fires or emergencies happening to them or their loved ones.



Many Singaporeans therefore do not consider EP training to be a salient part of their lives.

- b. High initial investment costs. Participating in the CEPP means making a costly time investment (e.g. a working adult may need to set aside a full day on a weekend to attend the CEPP) to gain EP skills.

### Leveraging SCDF's post-fire blitz campaign

The post-fire blitz campaign, currently conducted by SCDF and the Community Emergency and Engagement Committees (C2Es) following a significant fire at the block, was selected for two reasons:

- a. Harnessing issue salience: The immediacy of the fire in their apartment block implies that fire safety may weigh more heavily on residents' minds. Leveraging the SCDF's post-fire blitz campaign to encourage attendance at the CEPP means engaging with a more receptive pool of residents, relative to other contexts where fire is not a salient issue.
- b. "Scalability": The post-fire blitz is an ongoing community engagement effort. The proposed BI modifications could easily be adopted across all post-fire blitzes in the future, should they prove effective in increasing CEPP participation rates among residential households in the study.

### Behavioural insights modifications

Based on the literature review, the team proposed to evaluate two BI modifications to SCDF's post-fire blitz, namely message frames and follow-through prompts to encourage residents to participate in the CEPP.

### Message frames

Public opinion scholars have demonstrated that subtle variations in how information is framed can lead to large changes in attitudes and knowledge about an issue. Frames serve as a "central organising idea for making sense of relevant events and suggesting what is at issue" (Gamson & Modigliani, 1989); they "select some aspects of a perceived reality and make them more salient in a communicating text" (Entman, 1993).

“Public opinion scholars have demonstrated that subtle variations in how information is framed can lead to large changes in attitudes and knowledge about an issue.”

To elicit residents' interest in and intent to attend the CEPP, a message frame was used to help them make sense of the recent fire in their apartment block. The frames drew a link between having some knowledge of fire safety and the likelihood of escaping fires unharmed, and then made salient the benefits of attending the CEPP. There were two versions of the message frames: (i) the *self-interest* frame which emphasised how residents and their families would benefit from attending the CEPP, whereas (ii) the *communitarian* frame highlighted how their community would benefit. Residents were presented with either one of the frames shown in Figure 1 below or were given no frames at all. They were then asked whether they would be interested in attending the CEPP.

The behavioural science literature suggests that one way to encourage pro-social behaviour like volunteering, helping strangers or doing something that is costly to oneself is better achieved if the message is framed in a communitarian way (e.g. by appealing to one's sense of community; Bénabou & Tirole, 2006). Our hypothesis is thus that the communitarian frame would better encourage residents to attend the CEPP as compared to the self-interest frame.

Figure 1: Structure of the message frame

1. Good evening. I am here on behalf of the Singapore Civil Defence Force (SCDF). You may know of the fire which broke out on the xth floor of your block on [date].
2. [Either self-interest frame or communitarian frame]
3. At this point I want to share with you more on the CEPP – it is a programme taught by SCDF which comprises modules like First Aid, CPR and Fire Safety. It is a very useful course because you can attend and learn the essential steps needed to deal with various emergencies.  Can I ask whether you would you be interested to attend the CEPP?
4. [Follow-through prompt]

### Self-interest frame

We are conducting a door-to-door visit to share with **YOU** fire safety tips on how you can keep **YOU AND YOUR FAMILY** safe. We also want to share with **YOU** information about how **YOU** can get involved in SCDF's Community Emergency Preparedness Programme. People with greater knowledge of fire safety are more likely to escape fires unharmed. So we really wanted to speak with you on how **YOU** can better protect **YOURSELF AND YOUR FAMILY** from the dangers of fire.

Could I please ask what you would do **if a fire broke out in your apartment** while you were at home with your family? Could you briefly describe the actions you would take? [The interviewer should prompt the respondent with further questions if the response is "dial 995". Such prompts can take the form of "SCDF is on the way but might not arrive on time".]

### Communitarian frame

We are conducting a door-to-door visit to share with **RESIDENTS** fire safety tips on how they can help keep **EVERYONE** in the block safe. We also want to share with **RESIDENTS** information about how **EVERYONE** can get involved in SCDF's Community Emergency Preparedness Programme. The elderly and young children are more vulnerable to becoming victims of fire. People who live near neighbours with greater knowledge of fire safety were less likely to become victims of fire. So we really wanted to speak with you on how **RESIDENTS** can better protect **THEMSELVES AND THEIR NEIGHBOURS** from the dangers of fire.

Could I please ask what you would do **if a fire broke out in your neighbour's apartment** while you were at home with your family? Could you tell me the approximate age of your neighbour and the actions you would take? [The interviewer should prompt the respondent with further questions if the response is "dial 995". Such prompts can take the form of "SCDF is on the way but might not arrive on time".]

### Follow-through prompts

Next, residents who indicated their interest in attending the CEPP received either a follow-through prompt nudging them to attend the CEPP, or no follow-through prompt. The team designed two versions of the follow-through

prompts: (i) the **informational package** which comprised a printed schedule on upcoming CEPP sessions (see Figure 2) and a map with directions to the CEPP (see Figure 3), and (ii) the **preregistration package** which comprised the informational package, a prompt to preregister to attend the CEPP, an appointment postcard

(see Figure 4) and a notification that they might be contacted by the SCDF to share their feedback on the CEPP.

Research has shown that message frames could succeed in changing perceptions of an issue but may ultimately have a negligible effect on behaviours (Bartels, 2005; Mastrobuoni 2011; Sheeran, 2002; Sniehotta, Scholz, & Schwarzer,

2005). Several psychological and cognitive mechanisms account for why people often fail to act on their intentions. One reason is that sometimes people have time-inconsistent preferences – they agree to undertake costly actions in the future, but renege on that undertaking when the time comes because the action turns out to be costlier than they anticipated (Ainslie, 1975; Hoch & Loewenstein, 1991; Laibson,

Figure 2: Printed Information Schedule on Upcoming CEPP Sessions

## COMMUNITY EMERGENCY PREPAREDNESS PROGRAMME

X<sup>th</sup> SCDF Division HQ

**You will learn...**  
 Fire Safety, First Aid, CPR and Automated External Defibrillator (AED).

S/N	Day	Date	Time
1	Sunday	04-May	8.30 AM – 11.30 AM
2	Saturday	10-May	9.30 AM – 12.30 PM
3	Wednesday	14-May	8.30 AM – 11.30 AM
4	Thursday	15-May	8.30 AM – 11.30 AM

Please contact our CEPP Coordinator (Sgt XXXXXXXX) at 6XXX XXXX for any enquiries on CEPP or to check the availability of a session before attending. 😊

Figure 3: Example of a Map with Directions to CEPP Locations

Getting Here!

### Community Emergency Preparedness Programme

**HQ 1<sup>st</sup> SCDF Division**  
 3 Queensway  
 Singapore 149073

**By Public Transport:**


- Bus 100, 147, 196 or 198 from Commonwealth MRT.
- Alight at bus stop in front of Blk 166.
- 100m walk from bus stop.

Other buses: 51, 61, 64, 93, 123, 153, 855, 961


**If you are driving, you may park:**  
 At Queensway Shopping Centre  
 At nearby housing estate



Figure 4: Appointment Postcard for Residents who Pre-register for the CEPP



# My date with CEPP!



**Write your course details below:**

I, , have pre-registered for the CEPP on

(name) (date)

at  with

(location) (interviewer name)

1997; Loewenstein, 1996). The absence of a firm deadline to compel people to take immediate action could also lead them to procrastinate (Ariely & Wertenbroch, 2002; Milkman, Rogers, & Bazerman, 2008; O’Donoghue & Rabin, 1999), or they could simply forget (Schacter, 1999). Hence, our hypothesis is that the introduction of a commitment mechanism, a reminder and a

notification that they may be contacted by SCDF to provide feedback, would encourage residents to follow through on their intention to attend the CEPP (Burn & Oskamp, 1986; Milkman, Beshears, Choi, Laibson, & Madrian, 2011; Schelling, 1984, 1992; Shefrin & Thaler, 1981; Vervloet et al., 2012; Wertenbroch, 1998).

## EVALUATION METHODOLOGY

The team implemented a Randomised Controlled Trial (RCT) to evaluate which of the behavioural modifications to the SCDF's post-fire blitz campaign increased residents' interest in and attendance at the CEPP. An RCT is a type of experimental design where individuals (or other units of study such as households) are randomly allocated to one of the different treatments. This is to allow a fair comparison of the effectiveness of the various types of treatments. The RCT was conducted at five post-fire blitzes at Hougang, Sengkang, Choa Chu Kang, Tanjong Pagar and Kallang, where a total of 341 households were interviewed. The team spoke to one person in each household. The following individuals were excluded from the RCT: non-English speakers, foreign domestic workers, those below 15 years old or who were 80 years old and above. If only these individuals were at home, the household was excluded from the study. Non-English speaking residents were also excluded from the study as the CEPP is mainly conducted in English. The message delivery and interviews were conducted by trained interviewers, with the project team on-site to monitor and supervise the fieldwork. SCDF officers and grassroots members were also present to answer residents' queries on fire safety and town council issues, respectively.

During the post-fire blitzes, the team randomly assigned residential floors within each apartment block to one of five groups, so that all households within the same floor received the same treatment assignment. Residents living next to each other are more likely to interact with each other, compared to residents living on different floors. Hence, randomisation at the residential-floor level was utilised so as to minimise the possibility of contamination (e.g. residents discussing the specifics of the SCDF's communications during the post-fire blitz with one another and thereby affecting the experiment results). This approach also eased the execution of the experiment.

As shown in Figure 5, about 20% of the households were assigned to each of the following five groups:

**Treatment group 1**, which received self-interest frames with informational package;

**Treatment group 2**, which received self-interest frames with pre-registration package;

**Treatment group 3**, which received communitarian frames with informational package;

**Treatment group 4**, which received communitarian frames with pre-registration package; and

Figure 5: Number of households by group and block

Treatment Group	Hougang	Sengkang	Choa Chu Kang	Tanjong Pagar	Kallang	Total	% of total respondents
1	16	13	13	15	9	66	19%
2	12	15	13	14	13	67	20%
3	13	11	10	17	16	67	20%
4	19	10	9	15	18	71	21%
Control	11	12	11	19	17	70	21%
<b>Total</b>	<b>71</b>	<b>61</b>	<b>56</b>	<b>80</b>	<b>73</b>	<b>341</b>	<b>100%</b>

**Control group**, which received items SCDF usually provides at the post-fire blitz (e.g. pamphlets on fire safety).

During the post-fire blitzes, all the respondents were asked about their interest in attending the CEPP. They were also asked to complete a brief survey to collect their demographic information and their attitudes toward EP.

As shown in Figure 6, the demographic profile of the post-fire blitz respondents was 55% male and 83% Singaporean citizens. The mean age was 40.8 years and the average household size was 4.3; Chinese comprised 73%, Malays 9%, Indians 13%, and other races 5%; and 93% had received a secondary education or higher.

SCDF tracked respondents' attendance at the CEPP for up to two months after the post-fire blitz. We assumed that respondents who did not turn up for the CEPP within the two-month window were unlikely to do so subsequently.

Figure 6: Demographic profile of post-fire blitz sample

Characteristic	Post-fire blitz sample
<b>Male</b>	54.7%
<b>Singapore citizen</b>	82.9%
<b>Age</b>	Mean = 40.8
<b>Household size</b>	Mean = 4.3
<b>Chinese</b>	73.2%
<b>Malay</b>	8.8%
<b>Indian</b>	12.9%
<b>Others</b>	5.0%
<b>Had at least a Sec. education</b>	92.9%

## FINDINGS

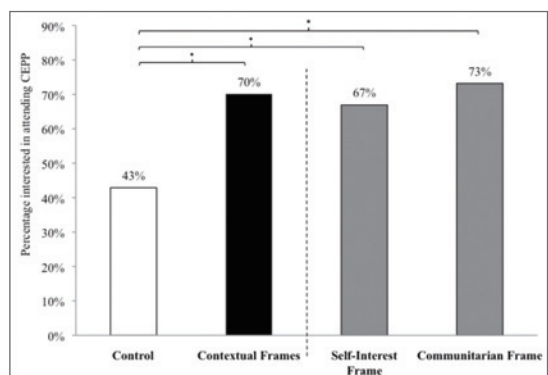
### Did the message frames increase interest in attending the CEPP?

Message frames were significantly more effective in increasing residents' interest in attending the CEPP, compared to the control group. By including the frames, the percentage of residents who were interested in attending the CEPP increased by 27 percentage-points (43% in the control group vs. 70% in the message framing groups) (Figure 7 refers). Although the communitarian frame (73%) was marginally more effective than the self-interest frame (67%), the difference was non-significant.

### Did message frames increase CEPP attendance?

However, message frames alone had no effect on increasing CEPP attendance. Only about 5% of the residents in the message framing group attended the CEPP although 70% said they were interested (Figure 8). This gap is known as the 'intention-behaviour gap' (Sniehotta et al., 2005).

Figure 7: Interest in Attending CEPP across Message Framing Groups



Note: \* indicates that the percentage difference between the two groups is statistically significant.

Figure 8: Intention-action Gap among Respondents

	Interested in Attending CEPP (%)	CEPP Attendance, of Those Interested (%)
Control Group	43	0
Message Frames	70	5

**Did follow-through prompts increase CEPP attendance?**

The information package was found to have negligible effect on CEPP attendance, whereas receiving the pre-registration package significantly increased CEPP attendance. Specifically, only 1% of those who received the information package attended the CEPP, while

14% of those who pre-registered attended the CEPP (Figure 9).

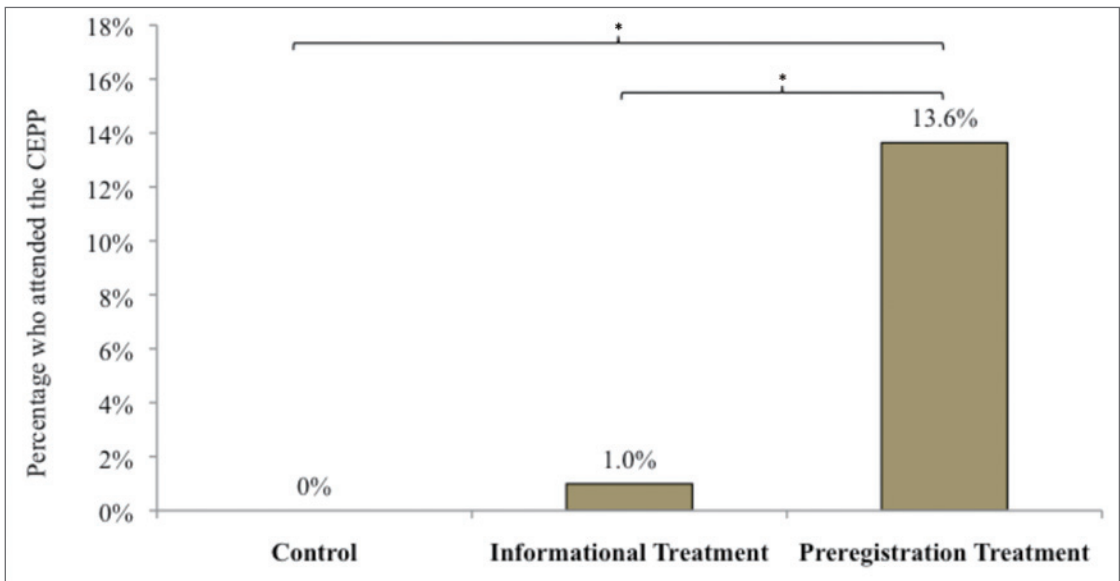
Pre-registrants who received the communitarian frame (14.3%) seemed to have higher attendance rate than those who received the self-interest frame (13.2%). However, this difference was actually non-significant. Figure 10 summarises the findings of residents’ interest in and actual attendance at the CEPP across the five groups.

There is also evidence of the network and contagion effect, as 20% of those who attended the CEPP brought their family or friends with them.

**RECOMMENDATIONS**

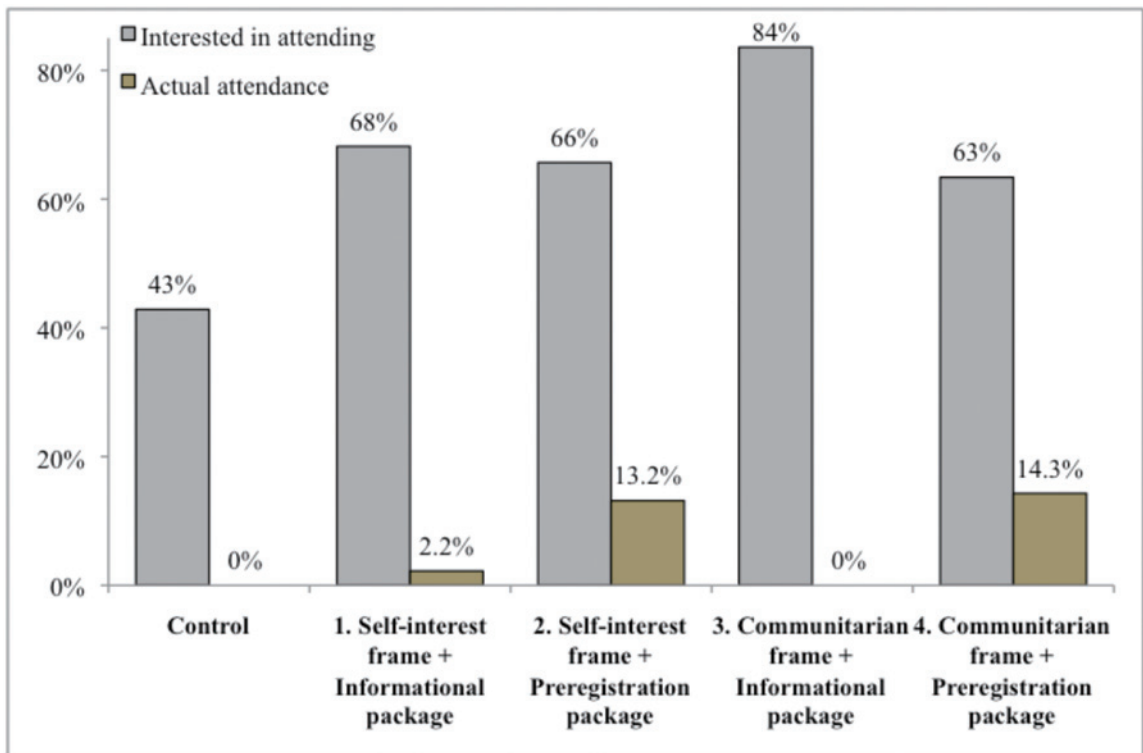
The findings of this study show that while we may be able to get people interested in attending

Figure 9: CEPP Attendance across the Follow-Through Prompt Groups



Note: \* indicates that the percentage difference between the two groups is statistically significant.

Figure 10: CEPP Attendance across the Follow-Through Prompt Groups



Note: \* indicates that the percentage difference between the two groups is statistically significant.

our programmes, or to agree to attend our programmes, it is challenging to get them to follow-through on their intentions. A specific call-to-action, in the form of the pre-registration package was found to have significantly narrowed the intention-action gap. This mechanism can be used for future Home Team engagements to encourage public participation in HT programmes or events.

Judging from the size of the effects of the BI modifications on CEPP attendance in this study, the proposed BI modifications have a potentially huge impact in encouraging public participation in the CEPP. If SCDF were to adopt the proposed BI modifications across all future post-fire blitzes, and there are 50 post-fire blitzes in a year, the SCDF would have reached out to 3,410 households. The estimated number of households attending the CEPP would therefore range between 345 and

465 (based on statistical analysis, the lower bound is 10.11% and upper bound is 13.60%). Based on our expenditure on the collaterals in this RCT – the maps and postcards for six blitzes cost \$390 to print – scaling this up to include 50 post-fire blitzes would cost about \$3,250.

The project team also recommends the following:

- Leveraging the network and contagion effect. 20% of the participants brought their family members or friends with them. It may be useful to encourage residents to bring their family members or friends with them for future events.
- Catching people at their “key moments”. We may also see better results if we engage people who have just bought a new home, had a baby, etc, i.e. capitalising on the ‘fresh start effect’.



## CONCLUSION

This study evaluated the effectiveness of two BI modifications – message frames and follow-through prompts – in encouraging residents to participate in the CEPP. The use of message frames (be it a self-interest message or a communitarian one) had a significant impact on raising interest levels in attending the CEPP, but many of these residents did not follow-through on their intentions. The use of the pre-registration package was, however, found to have significantly narrowed the intention-action gap, increasing CEPP attendance by getting residents to pre-book an appointment on the spot and to provide them with a visual reminder of their commitment.

## REFERENCES

- Ainslie, G. (1975). Specious reward: A behavioral theory of impulsiveness and impulse control. *Psychological Bulletin*, 82, 463-496.
- Ariely, D., & Wertenbroch, K. (2002). Procrastination, deadlines, and performance: Self-control by precommitment. *Psychological Science*, 13, 219-224.
- Bartels, L. M. (2005). Homer gets a tax cut: Inequality and public policy in the American mind. *Perspectives on Politics*, 3, 15-31.
- Bénabou, R., & Tirole, J. (2006). Incentives and prosocial behavior. *The American Economic Review*, 96, 1652-1678.
- Burn, S. M., & Oskamp, S. (1986). Increasing community recycling with persuasive communication and public commitment. *Journal of Applied Social Psychology*, 16, 29-41.
- Entman, R. M. (1993). Framing: Toward clarification of a fractured paradigm. *Journal of Communication*, 43, 51-58.
- Gamson, W. A., & Modigliani, A. (1989). Media discourse and public opinion on nuclear power: A constructionist approach. *American Journal of Sociology*, 95, 1-37.
- Hoch, S. J., & Loewenstein, G. F. (1991). Time-inconsistent preferences and consumer self-control. *Journal of Consumer Research*, 17, 492-507.
- Laibson, D. (1997). Golden eggs and hyperbolic discounting. *Quarterly Journal of Economics*, 112, 443-477.
- Loewenstein, G. (1996). Out of control: Visceral influences on behavior. *Organizational Behavior and Human Decision Processes*, 65, 272-292.
- Mastrobuoni, G. (2011). The role of information for retirement behavior: Evidence on the stepwise introduction of the Social Security Statement. *Journal of Public Economics*, 95, 913-925.
- Milkman, K. L., Beshears, J., Choi, J. J., Laibson, D., & Madrian, B. C. (2011). Using implementation intentions prompts to enhance influenza vaccination rates. *Proceedings of the National Academy of Sciences*, 108, 10415-10420.
- Milkman, K. L., Rogers, T., & Bazerman, M. H. (2008). Harnessing our inner angels and demons: What we have learned about want/should conflicts and how that knowledge can help us reduce short-sighted decision making. *Perspectives on Psychological Science*, 3, 324-338.
- O'Donoghue, T., & Rabin, M. (1999). Doing it now or later. *The American Economic Review*, 89, 103-124.
- Schacter, D. L. (1999). The seven sins of memory: Insights from psychology and cognitive neuroscience. *American Psychologist*, 54, 182-203.
- Schelling, T. C. (1984). Self-command in practice, in policy, and in a theory of rational choice. *The American Economic Review*, 74, 1-11.
- Schelling, T. C. (1992). Self-command: A new discipline. In G. Loewenstein & J. Elster (Eds.), *Choice over time* (pp. 167-176). New York: Russell Sage Foundation.
- Sheeran, P. (2002). Intention-behavior relations: A conceptual and empirical review. *European Review of Social Psychology*, 12, 1-36.
- Shefrin, H. M., & Thaler, R. H. (1981). An economic theory of self-control. *Journal of Political Economy*, 89, 392-406.
- Snihotta, F. F., Scholz, U., & Schwarzer, R. (2005). Bridging the intention-behavior gap: Planning, self-efficacy, and action control in the adoption and maintenance of physical exercise. *Psychology and Health*, 20, 143-160.
- Vervloet, M., Linn, A. J., van Weert, J. C., de Bakker, D. H., Bouvy, M. L., & van Dijk, L. (2012). The effectiveness of interventions using electronic reminders to improve adherence to chronic medication: A systematic review of the literature. *Journal of the American Medical Informatics Association*, 19, 696-704.
- Wertenbroch, K. (1998). Consumption self-control by rationing purchase quantities of virtue and vice. *Marketing Science*, 17, 317-337.

## ACKNOWLEDGEMENTS

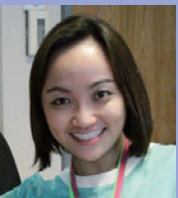
The authors thank the following SCDF officers for the help rendered to this study:

COL Abdul Razak Raheem	Director, Volunteer & Community Partnership Department (VCPD)
LTC Bob Tan	Assistant Director (Community Preparedness & Response), VCPD
Tan Shi Hui	Community Management Team Leader, VCPD
MAJ Yap Soon Huat	Head (Public Affairs Branch), 1st SCDF Division
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Dr Lal Nelson joined the Ministry of Home Affairs in 2005 and holds the appointment of Director, Research and Statistics Division (RSD). In his current role, Dr Nelson oversees research in support of the Ministry's core functions which include policing, crime prevention, drug prevention, emergency preparedness and rescue, immigration, offender rehabilitation and community cohesion. The use of Behavioural Insights to achieve policy outcomes is the latest area of research that is under the purview of RSD. Dr Nelson is also the Ministry's Chief Data Officer. Dr Nelson graduated with a PhD in Criminology from the University of Melbourne and has a Masters degree in Social Behaviour from the London School of Economics and Political Science, University of London.



Ms Sabrina Ng is Senior Assistant Director at the Behavioural Insights Unit in the Research & Statistics Division, Ministry of Home Affairs (MHA). She leads a team that looks at building Behavioural Insights capabilities in MHA through partnership with experts, undertaking collaborative BI projects with Divisions in the Ministry Headquarters and Home Team Departments, and conducting evidence-based trials to learn if the BI interventions work. The unit also conducts research on the impact of social media and maintains the research resources for MHA's research community. Sabrina joined MHA in 2002 after graduating from the School of Computing at the National University of Singapore.



At the time of writing, Mohd Zulkifli Kassim was Senior Assistant Director (Ops Network) of the Research and Statistics Division of MHQ. His work involved understanding and assessing public feedback on community cohesion and social resilience. He is currently with the Communications Division of the Central Narcotics Bureau.



Stephen Tay joined MHA in 2012 as a Research Officer of the Strategic Research Branch in the Research & Statistics Division. His work includes identifying emerging issues in the civil defence domain and undertaking joint research and programme evaluation studies with the HTDs. He is now a Manager in the Behavioural Insights Unit, undertaking BI projects and aiming to introduce design thinking in the projects to enhance BI interventions. He holds a Bachelor of Social Sciences in Psychology from the National University of Singapore.



Dr Michael Hiscox is Clarence Dillon Professor of International Affairs at Harvard University and Professor of Management and Ethical Business at the University of Sydney Business School, where he serves as Director of the STAR Lab. He is a Research Associate at the Harvard Institute for Quantitative Social Science, the Weatherhead Center for International Affairs, and the Harvard University Center for the Environment. He also co-leads the Harvard-MIT Private Governance Research Group. Dr Hiscox's award-winning research focuses on international trade, immigration, development, government accountability, and private sector initiatives and standards for addressing social and environmental issues in global supply chains. He has written two books and numerous articles for leading scholarly journals, and has consulted for governments and several major corporations and non-governmental organizations. He has designed and implemented large-scale clinical trials to evaluate government accountability measures, immigrant naturalization programs, supply-chain management and product certification systems, and consumer demand for ethically certified and environmentally labelled products. Dr Hiscox received his Bachelor of Economics (First Class) from the University of Sydney and his Ph.D. from Harvard University.



Dr Daniel Lim is interested in applying data analytics and behavioural sciences to advance evidence-based decision-making in government. He leads the Quant Strategy Team in IDA's Data Science Division @ Hive (soon to be part of the new Government Technology Agency) and concurrently serves as Special Assistant to IDA's Managing Director. He is also a member of the Civil Service College's Economics Experts Group and was previously involved in futures work with the 2035 National Scenarios Team. He joined the Public Service in 2014, after earning a Ph.D. in Government and a M.A. in Statistics from Harvard. He graduated from Georgetown's University's School of Foreign Service with a M.S. in International Relations and a B.S. in International Political Economy (summa cum laude) in 2011. He previously collaborated with Harvard's Behavioural Insights Group on joint projects with the Ministry of Home Affairs and Land Transport Authority.

# Understanding Drug Offenders

by Goh Jue Hui, Leung Chi Ching, Sylvia Liaw Sze Wai & Jasmin Kaur  
Singapore Prison Service

## INTRODUCTION

Drug offending is not a new challenge in Singapore. For many years, the government has adopted a zero-tolerance policy against all types of drug offences. Although Singapore has maintained its status as a relatively drug-free society, there have been signs of a worsening drug situation over the last few years; the drug offender population in Singapore prisons has surged almost 24% in four years. In this article, the authors discuss some of the underlying psychological and social factors that give rise to more intense drug-seeking behaviours.

illustrates the rate of growth of drug offenders relative to that of the overall inmate population.

Apart from the rise in drug offender numbers, the percentage of inmates who had a drug antecedent also saw 5 percentage point increase between 2009 and 2013. A drug antecedent is the presence of any prior or current drug offence.

In terms of recidivism, the number of recidivists who returned for a drug offence also increased by 47.5% from 2007 to 2011 release cohorts.

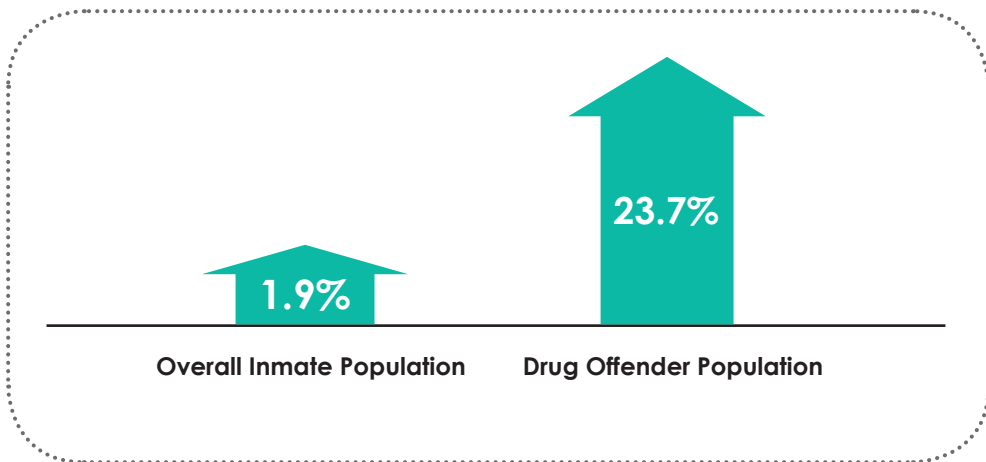


Figure 1: Rate of growth of drug offender population and overall inmate population from 2009 to 2013

## LOCAL DRUG OFFENDERS

Looking at the proportion of drug offenders in our local inmate population, a rising trend was observed. While the overall inmate population showed only a slight 1.9% increase from 2009 to 2013, the drug offender population presented a 23.7% surge over the same period. Figure 1

A closer look at the statistics revealed that inmates with consumption charges made up the bulk of drug offenders and their numbers have been on the rise. Figure 2 illustrates the proportion of drug offenders who were imprisoned for drug consumption. As shown in Figure 2, the proportion of this group went up over the last 5 years.

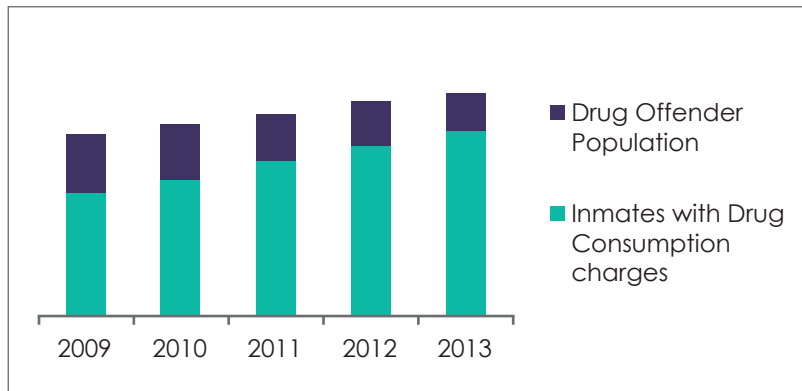


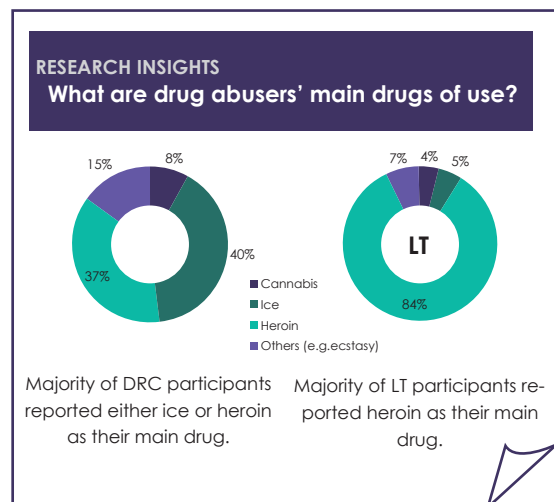
Figure 2: Population of drug offenders incarcerated for drug consumption

Drug Rehabilitation Centre (DRC) and Long Term (LT) imprisonment inmates form the population of inmates incarcerated for drug consumption. As evidenced by their scores on various drug dependence and risk assessment measures from internal studies, LT participants not only have a greater extent of drug use problems, but also a higher general risk of reoffending as compared to DRC participants (Chionh, Goh, Leung, & Kaur, 2014; Neo & Kaur, 2012). In addition, LT participants have been found to abuse a greater variety of drugs and to use drugs more frequently as compared to DRC participants. Hence, it is imperative that we take a deeper look at the factors that contribute to the varying severity of drug use.

### What Leads To More Severe Drug Abuse?

The severity of drug use is influenced by many factors. In this section, we explore some of the underlying psychological and social factors that give rise to more intense drug-seeking behaviours. The findings reported were based on international as well as internal research conducted by the Correctional Research Branch of the Singapore Prison Service.

The findings were drawn from an internal study conducted by Chionh and colleagues (2014a)



which was designed to investigate the profiles and psychological characteristics of drug abusers with varying severities of drug use. 514 drug abusers (comprising 242 DRC and 272 LT inmates) completed a series of quantitative surveys, aimed at understanding their motivation and attitudes towards drug abuse. Severity of drug use was determined by participants' scores on the Drug Abuse Screening Test (DAST).

## Psychological Factors

**Impulsivity:** Characterized by behaviours performed with little forethought, impulsivity is a personality trait that is closely related to drug use severity. Impulsivity has been found to be a risk factor for drug dependence and the inability to abstain from drug use (de Wit, 2008). Past research has also found greater impulsivity to be associated with more serious drug use, such as polydrug use and higher drug dose (Mooney, Minor, Wells, Leukefeld, Oser, & Tindall, 2008). In the local setting, higher levels of impulsivity were observed in participants with a greater severity of drug use as compared to those with less severe drug use (Chionh et al, 2014a). Even among first- and second-time drug abusers, impulsivity was demonstrated to be associated with a higher frequency of drug use (Kho & Leung, 2012).

**Coping:** Another factor that influences the severity of drug intake is coping. The coping perspective of drug use is based on the proposition that one's ability to cope with life stressors affects one's likelihood of turning to drugs for stress relief (Khalily, 2001). This perspective has been supported by research that demonstrates maladaptive coping to be associated with a greater likelihood of progressing to problematic drug use (Nyamathi et al., 2010; Wills, Sandy, Yaeger,

Cleary, & Shinar, 2001; Wong et al., 2013). Among local drug abusers, using maladaptive coping strategies has also been shown to be related to more serious drug use (Chionh et al, 2014a). For example, participants who used drugs more frequently were found to report a greater propensity to give up coping in the face of adversity as compared to participants who used drugs less frequently.

**Attitudes:** Attitudes also play a part in influencing drug-seeking behaviours. Research has shown that those who hold more liberal attitudes toward drug-taking were in fact more likely to be heavy drug abusers. (Jarvinen & Ostergaard, 2001). The Singapore Prison Service study also found that participants with a more serious drug problem tended to favour a more permissive view of drug use as compared to participants with a less serious drug problem (Chionh et al, 2014a). For instance, when asked to think about a hypothetical situation whereby there were no laws against drug-taking, participants with a greater intensity of drug use were more likely to agree that they would take drugs as compared to participants who used drugs with less intensity.

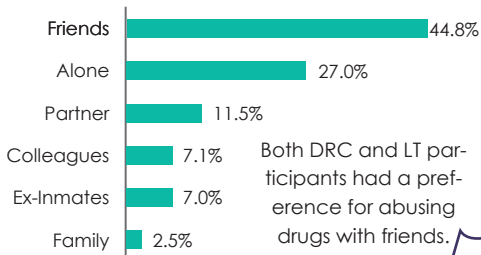
Apart from psychological factors, social factors also play a part in contributing to a greater severity of drug use.



*Figure 3: Examples of maladaptive coping strategies*

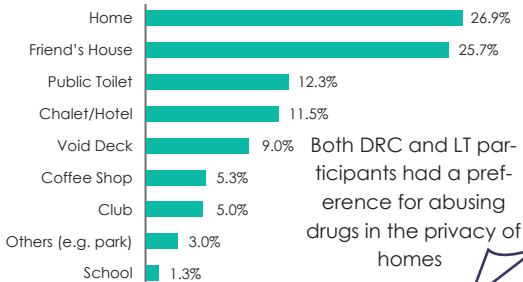
## RESEARCH INSIGHTS

## Who do drug abusers abuse drugs with?



## RESEARCH INSIGHTS

## Where do drug abusers abuse drugs at?



## Social Factors

**Family:** The absence of family support presents a risk factor for more serious drug use. It has been shown that individuals who were less successful in their attempts to manage their drug use were more likely to have received lower levels of family support (Calcaterra, Beaty, Mueller, Min, & Binswanger, 2014). A 2014 Singapore study on family support found that fewer visits received during incarceration was associated with a shorter time to relapse to drug use (Chionh, Goh, Toh & Kaur, 2014).

Moreover, negative family environment increases one's propensity to turn to drugs as a coping mechanism (Khalily, 2001). Individuals from dysfunctional families have been found to display a greater severity of drug dependence than individuals from functional families (Hemovich,

## RESEARCH INSIGHTS

## Gender differences in psychosocial factors for drug abusers



Males were more impulsive than females.



Females were more likely to abuse drugs with their partner than males.



Males were more likely to use maladaptive coping strategies than females.



Females had greater affiliation with drug peers than males

Lac, & Crano, 2010; Wade, Veldhuizen, & Cairney, 2011). Among local offenders, non-rewarding familial relationships were also associated with more severe drug use (Chionh et al, 2014a).

**Peers:** Associating with drug peers was likewise related to the escalation of drug use (Bohnert, Bradshaw, & Latkin, 2009; Schroeder et al., 2001). In fact, one's level of drug use has been shown to be positively related to that of one's peers (Duan, Chou, Andreeva, & Pentz, 2009). Associating with drug peers may then perpetuate drug-seeking behaviours by increasing drug availability and creating opportunities for drug use (Jarvinen & Ostergaard, 2001). The Singapore Prison Service study found that greater affiliation with antisocial peers has been found to be more prevalent in participants who abused drugs more frequently than participants who abused drugs less frequently (Chionh et al, 2014a). Though not exhaustive in nature, these psychosocial factors constitute important drivers that aggravate drug-seeking behaviours.

## Where Do We Go From Here?

The Singapore Prison Service currently provides a host of rehabilitation and reintegration



programmes for drug abusers, involving both in-care and after-care efforts. In-care interventions are intended to manage the risk factors related to drug abuse while aftercare interventions help to sustain in-care treatment effects and provide additional support to drug abusers for their reintegration.

Within the Singapore prison system, different treatment programmes have been developed to manage drug abusers with varying levels of drug dependence and risk levels. For example, those who have high drug dependence and high risk of general re-offending are channelled to high intensity programmes such as the Enhanced-DRC regime while those who have lower drug dependence and general re-offending risk are given programmes that are matched to their rehabilitation needs.



In recent years, newer approaches have been mooted and some have suggested that the brick walls of prisons alone may not be the most effective way to deal with the issue of drug abuse. The Community Rehabilitation Centre (CRC) represents a new initiative to break down the traditional walls of prisons. The CRC is for new and young drug abusers and it serves as a step down arrangement for them after a short period of detention in the DRC. Despite being in its infancy, CRC has much potential to change the traditional image of prisons. Beyond the CRC

initiative, a key question remains regarding how else the Singapore Prison Service can mobilise the community for greater involvement in the work of rehabilitation.

Apart from the individual factors, it has also been shown that family and peers play an important role in affecting drug use. Pro-social family and peer relationships can have a boosting effect on abstaining from drug use while the reverse is also true. Therefore, should the Singapore Prison Service expand its influence beyond the drug offender and the walls of prisons to improving family relationships and encouraging more pro-social peer interactions?

The issue of drug abuse is one that is multi-dimensional and ever evolving. As a correctional service, there is a need for the Singapore Prison Service to constantly review the ways in which it is managing the issue. To effectively reduce the harm of drugs in our society, we always need to stay one step ahead in the game.

## REFERENCES

- Bohnert, A. S. B., Bradshaw, C. P., & Latkin, C. A. (2009). A social network perspective on heroin and cocaine use among adults: Evidence of bidirectional influences. *Addiction, 104*, 1210-1218.
- Brown, S. A., D'Amico, E. J., McCarthy, D., & Tapert, S. F. (2001). Four year outcomes from adolescent alcohol and drug treatment. *Journal of Studies on Alcohol, 62*, 381-389.
- Calcaterra, S. L., Beaty, B., Mueller, S. R., Min, S.-j., & Binswanger, I. A. (2014). The association between social stressors and drug use/hazardous drinking among former prison inmates. *Journal of Substance Abuse Treatment, 47(1)*, 41-49.
- Chionh, Y. J. S., & Goh, J. H., Leung, C. C., & Kaur, J. (2014a). Drug profiles and motives. Singapore Prison Service.
- Chionh, Y. J. S., Goh, J. H., Toh, M. W. & Kaur, J. (2014b). *Exploring predictors of drug relapse in Singapore*. Poster presented at 10th Reintegration Puzzle Conference, Singapore.
- de Wit, H. (2008). Impulsivity as a determinant and consequence of drug use: A review of underlying processes. *Addiction Biology, 14*, 22-31.

- Duan, L., Chou, C., Andreeva, V. A., & Pentz, M. A. (2009). Trajectories of peer social influences as long-term predictors of drug use from early through late adolescence. *Journal of Youth and Adolescence*, 38, 454-65.
- Hemovich, V., Lac, A., & Crano, W. D. (2010). Understanding early-onset drug and alcohol outcomes among youth: The role of family structure, social factors, and interpersonal perceptions of use. *Psychology, Health & Medicine*, 16, 249-267.
- Jarvinen, M. & Ostergaard, J. (2011). Dangers and pleasures: Drug attitudes and experiences among young people. *Acta Sociologica*, 54, 333-350.
- Khalily, M. T. (2001). A comparison between the psycho-social characteristics of drug addicts and non-addicts. *Pakistan Journal of Psychological Research*, 16, 113-128.
- Kho, Y. R. V. & Leung, C.C. (2012). *The relationship between impulsivity, drug attitudes and drug use severity*. Unpublished manuscript, Singapore Prison Service.
- Mooney, J. L., Minor, K. I., Wells, J. B., Leukefeld, C., Oser, C. B., & Tindall, M. S. (2008). The relationship of stress, impulsivity, and beliefs to drug use severity in a sample of women prison inmates. *International Journal of Offender Therapy and Comparative Criminology*, 52, 686-697.
- Neo, S. H. & Kaur, J. (2012). *Validation of Drug Abuse Screening Test (DAST) in Singapore Prison Service*. Unpublished manuscript, Singapore Prison Service.
- Nyamathi, A., Hudson, A., Greengold, B., Slagel, A., Marfisee, M., Khalilifard, F., Leake, B. (2010). Correlates of substance use severity among homeless youth. *Journal of Child and Adolescent Psychiatric Nursing*, 23, 214-222.
- Schroeder, J. R., Latkin, C. A., Hoover, D. R., Curry, A. D., Knowlton, A. R., Celentano, D. D. (2001). Illicit drug use in one's social network and in one's neighborhood predicts individual heroin and cocaine use. *Annals of Epidemiology*, 6, 389-394.
- Simons, J., Correia, C. J., & Carey, K. B. (2000). A comparison of motives for marijuana and alcohol use among experienced users. *Addictive Behaviors*, 25, 153-160.
- Wade, T. J., Veldhuizen, S., & Cairney, J. (2011). Prevalence of psychiatric disorder in lone fathers and mothers: Examining the intersection of gender and family structure on mental health. *Canadian Journal of Psychiatry*, 56, 567-573.
- Wills, T. A., Sandy, J. M., Yaeger, A. M., Cleary, S. D., & Shinar, O. (2001). Coping dimensions, life stress, and adolescent substance use: A latent growth analysis. *Journal of Abnormal Psychology*, 110, 309-323.
- Wong, C. F., Silva, K., Kecojevic, A., Schrage, S. M., Bloom, J. J., Iverson, E., & Lankenau, S. E. (2013). Coping and emotion regulation profiles as predictors of nonmedical prescription drug and illicit drug use among high-risk young adults. *Drug and Alcohol Dependence*, 132, 165-171.

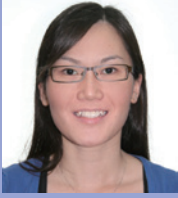
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# Identifying Individuals at Risk of being Radicalised via the Internet: A Behavioural Sciences Approach

by Neo Loo Seng  
Home Team Behavioural Sciences Centre

## INTRODUCTION

It is unquestionable that the Internet has had a profound impact on the process of radicalisation and how violent extremist groups reach out to potential recruits. Violent extremists have profited from this technological advancement (e.g., greater anonymity and protection from law enforcement agencies) to transform the way they operate on a historically unprecedented scale (Torok, 2013; Weimann, 2007). Almost all violent extremist groups currently have a presence on the Internet and utilise this platform for a myriad of purposes. In particular, many groups have redirected their recruitment activities from public spaces into the 'online world' (Hussain & Saltman, 2014; Neo, Khader, Shi, Dillon, & Ong, 2015; Reiger, Frischlich, & Bente, 2013). For example, Al-Qaeda's official forum, Shamukh Al-Islam, is used by its senior members to spread their messages and ideology to members and supporters. The Internet has also altered the relationship between violent extremism and the media; it has allowed violent extremists to expand the functionalities of their propaganda efforts beyond the boundaries of the traditional, mainstream media (Europol, 2014). No longer dependent on traditional media outlets to disseminate their propaganda, violent extremists have sharply increased their number of online publications, indicating an increased reliance on the Internet to achieve

“Almost all violent extremist groups currently have a presence on the Internet and utilise this platform for a myriad of purposes.”

their cause (Rogan, 2007). In fact, the Internet has become the most important medium for the dissemination of violent extremist ideologies (Conway, 2012; General Intelligence and Security Service [AIVD], 2012). From a law enforcement perspective, this marks a significant development: the increased online presence of violent extremists has raised the possibility of more individuals being radicalised via the Internet (Bartlett, 2008; Bermingham, Conway, McInerney, O'Hare, & Smeaton, 2009; Geeraerts, 2012; Neo, Singh, Khader, Ang, & Ong, 2013).

### [The emergence of lone-wolf attacks](#)

The proliferation of violent extremist materials online and the ease with which anyone can access online communities advocating violence have increased the capacity for online violent extremism. For example, supporters of the Islamic State of Iraq and Syria (ISIS) have produced and disseminated several e-books such as the 'Hijrah to the Islamic State' (see figure 1) to provide operational guidance to potential recruits interested in performing hijrah (migration) to the Islamic State. Serving as an effective conduit for communication, the Internet has therefore facilitated violent extremists' capability to act and provided more opportunities for individuals to be radicalised online.

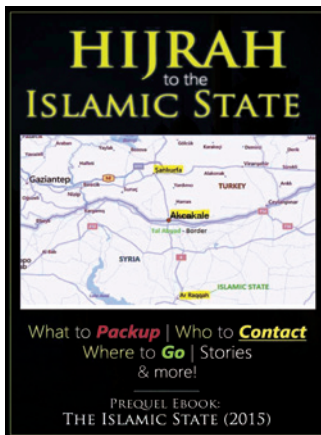


Figure 1. Screenshot of e-book titled 'Hijrah to the Islamic State' created by ISIS supporters

Perhaps nothing encapsulates the threat better than the pronounced rise in the number of individuals known to have been radicalised via the Internet, and the emergence of lone-wolf attacks. For example, Roshonara Choudhry, a university student who in 2010 stabbed British MP Stephen Timms using a kitchen knife, was presented as having been radicalised by Anwar al-Awlaki's online lectures (Dillon, Neo, Ong, & Khader, 2014). The Tsarnaev brothers, who attacked the Boston Marathon in 2013, were also presented as having been radicalised by radical online content (Bowman-Grieve, 2015). These examples demonstrate the real-world manifestation of the threat of online violent extremism. Understanding how to best detect these violent extremists is therefore of interest to law enforcement agencies, policymakers, and the academic community.

As Peter Neumann of the International Centre for the Study of Radicalisation in the United Kingdom puts it:

*Indeed, based on project interviews, there seems to be a strong consensus among different [U.S.] government departments and agencies as well as independent analysts and experts that the growing importance of the Internet in radicalisation is the single most significant innovation to have affected home-grown*

*radicalisation since the September 11 attacks in 2001. [Neumann, 2012, p. 12]*

What the Internet has done, or at least helped, is to expand the outreach of violent extremism to the individual level.

### [The need to identify potential violent extremists online](#)

Law enforcement agencies are increasingly being challenged to police the Internet, to identify and monitor the online activities of violent extremists and those vulnerable to violent extremism (United Nations Office on Drugs and Crime, 2012). There is therefore an urgent need to introduce online focused measures to assist in the identification of individuals at risk of being radicalised via the Internet. The ability to collect such online information would serve as valuable data and behavioural evidence appropriate to determining the risk of potential violent extremists.

## INSIGHTS FROM A BEHAVIOURAL SCIENCES PERSPECTIVE

In the current security climate, there is an ever greater need to adopt approaches that can reveal critical insights about online violent extremists and how they are exploiting the features of the Internet. It is therefore crucial that evidence and insights from the behavioural sciences disciplines make an effective contribution (Neo et al., 2015). Behavioural sciences research can help better inform an understanding of the violent extremists' online-related behaviours and their online content, and their radicalisation processes. For example, Edward and Gribbon (2013), in their analysis of the pathways to online violent extremism, emphasised

the need to take into account the influence of the Internet and the online violent extremist community in order to obtain a clearer picture of the level of risk posed by such extremists. This in turn may allow law enforcement agencies to tailor and develop measures to mitigate the threat

“What the Internet has done, or at least helped, is to expand the outreach of violent extremism to the individual level.”

in advance. Thus, there is a need to move beyond the sphere of the physical world and acknowledge the impact of the Internet.

### [Understanding the online violent extremist community](#)

From a psychological perspective, recognising the role of the Internet in facilitating the radicalisation process would enable an understanding of how the Internet has been used to promote involvement and encourage recruitment into violent extremist movements. In a study based on the responses of 450 non-radicalised adults to jihadi and right-wing violent extremist videos, Rieger, Frischich, and Bente (2013) found that the production styles of videos was cited as a dominant reason for developing neutral, as opposed to negative, attitudes towards these videos. The authors noted violent extremist videos that were professionally made and directly addressed the recipients received less pronounced unpleasant ratings as compared to videos that do not. The ISIS online propaganda machinery appears to understand this: it has put forth many videos such as *Repelling the Swords of Irjaa* (see figure 2) that categorically address and debunk every major criticism directed against it.



Figure 2. Screenshot of the video titled 'Repelling the Swords of Irjaa' that was created by ISIS to debunk criticism directed against it.

It has also been noted in numerous studies that the Internet not only allows for more savvy forms of presentation, but also more interactivity with potential recruits. For example, Brachman and Levine (2011) draw attention to the use of virtual communities (e.g., forums, Facebook)

to attract new recruits by providing them with the platform to network and communicate with like-minded individuals. This in turn may increase the likelihood of members of these online communities adhering to the stipulated community rules and behavioural norms, eventually developing a shared identity that encourages violent extremism (Radlauer, 2007). This notion has been underscored by Bowman-Grieve (2009) when she observed that members in Stormfront forum, a white nationalist extremist forum (see figure 3) perceived themselves as part of a global community united by ties of solidarity that transcend geographical boundaries. Thus, the Internet can intensify and accelerate the process of radicalisation because it allows for normalisation of risky behaviours and act as an echo chamber in which extreme ideas are accepted and encouraged (Saifudeen, 2014).



Figure 3. Screenshot of Stormfront forum: The virtual community of the radical right

However, research has also highlighted the need for more studies to account for how the Internet may shape one's behaviours and attitudes, and perhaps even increase one's involvement in violent extremism over time (Hussain & Saltman, 2014). The process of how individuals become (or not become) radicalised online is a complex process of interaction between the individual and the Internet's online features. It is therefore important to focus not just on analysing the online violent extremist content (i.e., its messages and intent), but also to explore how individuals use the Internet (i.e., how an individual comes to support violent extremist groups or movements via the Internet).

### Risk and protective factors

Despite the lack of a collective understanding of the role of the Internet in the process of online radicalisation, there has been an increasing amount of evidence-based behavioural sciences research identifying factors of radicalisation into violent extremism (e.g., Behr, Reding, Edwards, & Gribbon, 2013; Bowman-Grieve, 2011; Dean, 2014; Pressman & Flockton, 2012; Tan, 2006). These findings may be extrapolated to provide insights on the relationship between specific factors and online-related behaviours and online content that are pertinent to the risk assessment of online violent extremism.

This paper thus proposes three broad domains from a behavioural sciences perspective that are particularly relevant in identifying individuals at risk of being radicalised via the Internet. These domains are: (i) the person-centric [risk] domain, (ii) the system-centric [risk] domain, and (iii) the protective domain. These domains provide insights on the characteristics of violent extremists (i.e., person-centric [risk] domain), the role of the Internet in bridging the users and radical narratives (i.e., system-centric [risk] domain), and the conditions that discourage involvement in online violent extremism (i.e., protective domain). Given that online violent extremism is considered a low base rate event, an understanding of the relevant factors from these three domains may enable law enforcement agencies to prioritise their resources and mitigate the threat more effectively.

### **PERSON-CENTRIC (RISK) DOMAIN: WHO BECOMES A RADICAL BY SURFING THE INTERNET?**

The Internet has often been singled out as the means by which violent extremist groups attract new sympathisers and potential recruits. It is, however, important to note that the Internet is not the sole determining factor that leads an individual to commit acts of violence. To further examine this notion, it is important to appreciate two key observations.

Firstly, there are a large number of violent extremists who are not radicalised as a result of the Internet. Insights from violent extremist case histories note that a vast majority of individuals who became involved with radical ideology did so through various offline clandestine interactions (Behr et al., 2013). In that sense, there have been suggestions that the Internet has been exploited by violent extremist groups to complement and support their offline activities (e.g., Bowman-Grieve, 2009; Neo et al., 2013).

Secondly, while some individuals do become attracted to online violent extremist content, it is also essential to note that the majority of Internet users are not susceptible and do not fall prey to these materials. Even for those who are drawn towards violent extremist ideology, only a small minority eventually become radicalised. In fact, most Internet users reject the use of violence (Baines et al., 2006; Hussain & Saltman, 2014). Thus, the notion that the Internet is the key initiator of the radicalisation process is unfounded. This highlights the presence of other factors (i.e., person-centric [risk] factors) that may influence the Internet-mediated radicalisation process.

### Development of a susceptible mindset

For instance, the individual may experience certain personal circumstances that affect one's readiness to subscribe to radical ideology – especially if the ideological narratives resonate with one's state of mind. It appears that susceptibility towards radical ideology may stem from an interaction between one's reaction to circumstantial triggers (e.g., transitional periods such as loss of loved ones) and one's personal vulnerabilities (e.g., need for affiliation, coping styles) (see Neo et al., 2015). Occurrences of such events may prompt the individual to question one's existing beliefs and attitudes, which in turn 'opens up' one's mind and creates a willingness to explore new values and ideas (Kruglanski, 2014). Similarly, Katharina von Knop (2007, p. 249) of the University of the Armed Forces in Munich, Germany opined that "to be seduced by

such [radical] narratives, the user must be in a condition of emotional neediness". Furthermore, it is essential to note that it "depends on the individual consumer in question ... while the Internet might make information easier to find, ultimately the effect on the individual and their subsequent decision to take action will be a personal one" (Edwards & Gribbon, 2013, p. 45).

The case of Colleen LaRose, also known as Jihad Jane, can be used to illustrate the interaction between one's reaction to triggers and personal vulnerabilities. In 2005, LaRose was "reportedly

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severely distraught over the death of her father" and had attempted suicide (Halverson & Way, 2012, p.140). She was experiencing a difficult time in her life and was looking for new spiritual guidance. LaRose eventually converted to Islam after meeting a Muslim man while on vacation, leading her on a quest to find a Muslim husband through online dating sites (Pilkington, 2010). LaRose then came into contact with violent extremists and their ideas over the Internet and began posting various jihadi related videos on YouTube and Myspace. On her Myspace profile, LaRose displayed pictures of the violence in the Middle East, along with messages such as 'Palestine We Are with You' (see figure 4). Halverson and Way (2013) drew this conclusion from the Colleen LaRose case:

*[S]ustained discontent among individuals, who are excluded from the broader opportunities and benefits of society, whether due to tragedy, class, ethnicity, or psychological disadvantage, can lead to radicalisation if a contact point facilitates even minimal social reinforcement and structural support for their grievances. (p. 149)*

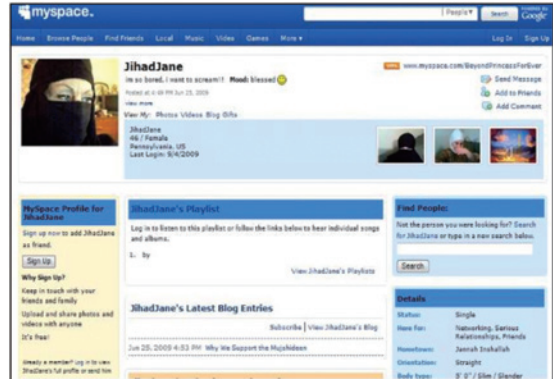


Figure 4. Screenshot of Colleen LaRose's Myspace account

Hence, there is a need to consider how these person-centric (risk) factors may shape and influence one's degree of susceptibility to being influenced and persuaded by radical rhetoric. Given that online violent extremism is a highly complex issue driven by multifaceted motivations, it is important to identify the factors that may drive one to embrace a violent extremist group's ideology. Depending on the circumstances of the individual, the main motivation for a person to become involved in violent extremism may not be ideology, but other reasons such as a need to belong to a larger social entity (McCauley & Moskaleiko, 2011; Neo, Khader, Ang, Ong, & Tan, 2014).

### Changes in attitudes and behaviours towards the use of violence

To that end, these individuals may also experience other psychological outcomes



such as changes in self-awareness and most importantly, an increased tolerance towards the use of violence. For example, the individual may exhibit strong hatred towards a particular segment of the population perceived to be responsible for the injustice faced by his (or her) community (Bandura, 2004; Horgan, 2005). This in turn creates the predisposition for him to use dehumanising and demonising language to express his unhappiness against the injustice, misdoings, and unfair treatment perpetrated against his community.

Furthermore, an individual's degree of susceptibility to radical ideology may lead to the assimilation of ideas that advocate the use of violence, and change his opinions on the moral value of killing. This notion was corroborated by Kossowska and colleagues (2011) when they emphasised that an individual's social attitudes and preferences for action may change as a result of changes in his (or her) opinions about the world. Individuals who adhere to a violent extremist group, cause or ideology, and change their societal outlook and worldview (Eidelson & Eidelson, 2003; Silber & Bhatt, 2007; Wilner & Dubouloz, 2011), may move beyond radical rhetoric to violent action and in the process embrace a legitimised agenda to use violence. This in turn may edge them towards the normalisation of a violent extremist cause or ideology – especially in the use of violence.

For instance, Umar Farouk Abdulmutallab, more commonly known as the 'underwear bomber', began his journey into violent extremism not by looking for radical narratives but while searching for companionship. As a young man growing up alone in London, Abdulmutallab expressed his feelings of loneliness on mainstream Islamic forums such as [www.gawaher.com](http://www.gawaher.com) (Leonard, 2009). Eventually, Abdulmutallab began to move beyond mainstream online media to radical forums, and in the process embraced the Al-Qaeda ideology. He started to communicate

with other violent extremists online and to listen to radical lectures that he found online (Hider, 2010). It turned out that these forums provided the sense of affiliation which he greatly coveted, and played a major role in his radicalisation process. Abdulmutallab began to assimilate new radical ideology that was evident in his perception of Western nations. At his trial in New York in 2012, he said: "The Koran obliges every able Muslim to participate in jihad and fight in the way of Allah those who fight you, and kill them [Western nations] wherever you find them ... an eye for an eye, a tooth for a tooth" (Prince, 2012, para. 20). In 2009, Abdulmutallab managed to contact Anwar al-Awlaki in Yemen and went on to target a Detroit-bound airplane on Christmas day (Seib & Janbek, 2011). Thus, the Internet with its multi-faceted communication capabilities creates platforms of opportunity for individuals like Abdulmutallab to satisfy their need for affiliation and to assimilate new radical beliefs. In summary, further work that examines person-centric (risk) factors is therefore a fruitful area for identifying individuals at risk of being radicalised via the Internet.

### **SYSTEM-CENTRIC (RISK) DOMAIN: WHICH FEATURES OF THE ONLINE PLATFORM ATTRACT INDIVIDUALS?**

While there is certainly merit to focus only on the individual of interest, it is insufficient in the context of online violent extremism. Violent extremists have become so adept at exploiting the Internet that they have developed a wide variety of digital platforms (e.g., websites, forums, and social media sites) to fulfil their agenda. In other words, 'real world' behavioural manifestations of radicalisation often do not provide a complete picture of the situation. Nor do these address the reasons why such online radical narratives are appealing and influential to certain targeted populations (Neo et al., 2015). Hence, there

“Individuals may also experience other psychological outcomes such as changes in self-awareness and most importantly, an increased tolerance towards the use of violence.”

is a need to understand the appeal of online communication and the influence of the online community.

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Researchers such as Manuel Torres-Soriano (2012, p. 770) of the Pablo de Olavide University of Seville, Spain, argues that without the Internet, jihadi groups “would be isolated from the Muslim community, unable to receive support, funding, or new activists”. Violent extremists’ use of the media has evolved and the Internet is fast becoming an option for them to spread their messages of hatred and violence. In fact, it would be reasonable to argue that the ability to manipulate and control the content uploaded onto the Internet has enhanced the outreach and recruitment processes of violent extremist groups. This in turn provides unprecedented opportunities for individuals to be inspired and influenced by radical ideology (Gupta, 2011).

### [Proliferation of violent extremist propaganda materials online](#)

The number of online channels for violent extremists to propagate their propaganda has proliferated alongside the growth in digital technology. Violent extremist online propaganda materials such as the Inspire magazine (see figure 5) have been implicated in a number of cases of incarcerated terrorists. For example, Irfan Naseer, Irfan Khalid, and Ashik Ali were arrested in the United Kingdom in October 2012 for attempting to conduct an attack using the plans featured in issue two of Inspire (Lemieux, Brachman, Levitt, & Wood, 2014). This particular example highlights the ways in which online resources may be used to incite potential recruits and sympathisers to conduct attacks. The ability to disseminate information in real time has intensified the threat of online violent extremism by allowing groups to reach their potential recruits more effectively (Conway, 2012).



Figure 5. Screenshot of Inspire magazine – created by Al-Qaeda in the Arabian Peninsula

For instance, in the case of Twitter, once an individual expresses an inclination towards radical ideology (i.e., following the accounts of violent extremists), Twitter will automatically recommend other similar accounts to follow. This greater emphasis on improving the Twitter experience of users has facilitated the outreach of violent extremist groups. By identifying and recommending prominent accounts to follow, social media websites such as Twitter actually increase the likelihood of users becoming more entrenched in their violent extremist worldviews.

Furthermore, the interactive element of the Internet has laid the foundation for the online community and the online propaganda materials to thrive. Such communities ensure that individuals who are sympathetic to violent extremist views can gain access to other like-minded individuals and radical materials. More importantly, such interactions may socialise the members to online social circles with radical worldviews, thereby creating a ready-made

“By identifying and recommending prominent accounts to follow, social media websites such as Twitter actually increase the likelihood of users becoming more entrenched in their violent extremist worldviews.”

antecedent for more radical ideology (Seib & Janbek, 2011).

Even in cases of lone-wolf attacks, the Dutch General Intelligence and Security Service (AVID) noted in 2012 that these perpetrators rarely become radicalised in complete isolation; they usually would have engaged in some form of interaction with like-minded individuals in the online communities. Likewise, Hussain and Saltman (2014) believe that the violent extremist online communities can replace the social environments that these perpetrators lack in the real world. Thus, the online communities play a role in facilitating a climate of receptivity for the violent extremist propaganda messages.

### Instantaneous outreach for violent extremist groups

The Internet has made it much easier for one to find and share violent extremist materials. It has also given rise to a new trend where self-taught radical religious figures, such as Anwar al-Awlaki, have exploited the Internet to preach their radical ideology (Brachman & Levine, 2011). Similarly, from empirical research with ISIS fighters, Zelin, Kohlmann, and al-Khouri (2013) suggest that:

*[S]ocial networking platforms like Facebook and Twitter have provided a critical online bedrock for foreign fighters in Syria, opening to them a constant avenue for communication and an open path to share critical information, solicit contributions, and recruit fighters. Each day on Facebook, new names and photos of deceased foreign fighters are posted by rebel*

*supporters who hope that their willingness to sacrifice will inspire others to follow in their footsteps”.* (p. 2)

These online materials are characterised by a lack of mainstream viewpoints and most of the information is easily accessible for download or viewing. This exploitation of the Internet represents a departure from the way traditional violent extremist groups used to operate. The Internet has allowed groups to thrive virtually outside the shadows where they once dwelled – they can subvert law enforcement measures targeted at physical training camps and meeting locations (Dauber & Winkler, 2014). In fact, the wide assortment of online materials and interactive features embody the perfect substitute for offline communication (Weimann, 2004). This allows violent extremists to disseminate information instantaneously to their targeted audience. Thus, the Internet provides violent extremist groups the ‘access’ to support, facilitate, and guide their supporters and sympathisers.

This would further suggest an elevated risk of “surprise attacks by unknown groups whose members and supporters may be difficult to pinpoint” (National Intelligence Estimates, 2006, p. 7). For instance, Norwegian right-wing violent extremist Anders Behring Breivik disseminated his manifesto via his Facebook account just an hour before he carried out his attacks (Gardner, 2013). This case further reiterates the alarming inadequacy of even the most astute law enforcement agencies in preventing the spread of radical materials.

“The Internet provides violent extremist groups the ‘access’ to support, facilitate, and guide their supporters and sympathisers.”

The increasing numbers of well-documented cases in which individuals have transitioned from online violent extremism to real world violence therefore underscore the need to better understand the system-centric (risk) factors of the Internet which have been exploited by violent extremist groups to sustain their movements.

## PROTECTIVE DOMAIN: BUILDING CYBER PSYCHOLOGICAL RESILIENCE

Besides knowing how an individual may become radicalised via the Internet using insights gathered from the person-centric (risk) and system-centric (risk) domains, there is also value in exploring protective factors that dissuade individuals from getting involved in the first place. This entails a departure from an emphasis on just identifying risk factors of violent extremism. Instead, these protective factors can be used to identify an individual's risk of not becoming radicalised online – i.e., the more protective factors, the less likely the individual would become radicalised.

Underpinning this approach is the assumption that most individuals exposed to the same enabling environments as those who became violent extremists did not become radicalised. For example, Kim Cragin of the University of Maryland in the United States asserts that relatively few individuals become involved in violent extremism even though they share many of the risk factors that research suggests would increase the risk for violent extremism. To reinforce this assertion, Cragin (2014) highlights “areas of conflict, such as the Gaza Strip, northwest Pakistan, or the southern Philippines” and wonders “why more individuals have not joined local militant groups” (p. 337).

### [Inoculating individuals against the threat of violent extremist propaganda online](#)

With the digitalisation of our daily activities, people are becoming more digitally literate at a

younger age (Honey, Culp, & Spielvogel, 2005). Many young people are increasingly turning to online materials for knowledge about the real world. Given the massive amount of information available online, there are valid concerns that vulnerable individuals especially the youths may become attracted to violent extremist ideology on the Internet (Geeraerts, 2012; Samuel, 2012).

Research on countering online radicalisation suggests that equipping one with the knowledge and skills to cope effectively with situations that provoke strong emotional distress [e.g., grievances and injustices portrayed within the propaganda materials] may undercut and offset the allure of violent extremist narratives (Mihailidis & Thevenin, 2013; Steven & Neumann, 2009). Thus, instead of being influenced by the online content, the individual might be able to discern and make informed choices about the information he comes across, and rejects those that espouse radical beliefs.

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For instance, Singapore's Internal Security Department (ISD) has embarked on an extensive outreach effort to educate and sensitise the public to the various security threats the country faces today. Additionally, the Religious Rehabilitation Group (RRG) is a group of volunteer clerics who have undertaken efforts to build up the community's defence against the threat of violent extremist ideology in Singapore. To address the threat of online violent extremism, RRG has also expanded its outreach onto the online sphere. Its website (see figure 6) has been used to educate Singaporean Muslims on the dangers of violent extremist ideas, and debunk violent extremist misinterpretation of religious concepts.



Figure 6. Screenshot of the Religious Rehabilitation Group's website

Furthermore, new research developments (e.g., Ashour, 2009; Bjørge & Horgan, 2009; Reinares, 2012) in the area of deradicalisation have revealed evidence of violent extremists disengaging from violence due to a myriad of factors such as fear, disillusionment with violent extremist groups, unmet expectations, changes in one's lifestyle, and perceived ineffectiveness of the groups' cause. For example, the presence of alternative and competing social support networks that do not support violent extremist offending has served as a protective buffer to distance the individual from getting involved in violent extremism (Rabasa, Pettyjohn, Ghez, & Boucek, 2010). Building conceptually on these findings, it underscores the merit of identifying protective factors that can be leveraged to minimise the likelihood of individuals becoming radicalised online.

## CONCLUSION

Online violent extremism continues with no signs of abatement as online radical narratives continue to inspire individuals from different parts of the world. The increase in the number of violent extremist online media, which have been attracting thousands of regular visitors daily, further attest to the role played by the Internet in propagating online violent extremism. To that end, it seems fair to conclude that the Internet and its online features have played an important

role in connecting potential recruits with violent extremist groups.

## The need for more research from a behavioural sciences perspective

With an increasing number of well-documented cases in which individuals have transitioned from the online realm to real world violence, countering online violent extremism has gained traction with law enforcement agencies, policymakers and the academic community. Even so, the transition from online to offline violence remains poorly understood. While there are thousands of members of the violent extremist online communities, very few become violent extremists in the real world. The 'loudest' online members (i.e., those engaged in the most vigorous and aggressive forms of online interactions) may not, in fact, be the ones most likely to engage in violence. Likewise, the most passive ones are not automatically the most peaceful either. Thus, understanding the transitions between the online and offline worlds is essential if law enforcement agencies are to understand how the next generation of potential violent extremists will be radicalised.

Furthermore, given the shortage of resources (i.e., lack of manpower to monitor the massive amount of online information), law enforcement agencies are now required to prioritise those individuals who pose the greatest risk of involvement in violent extremism based on their online activities. This incorporation of an individual's online-related behaviours and online content is novel and will become increasingly central in determining the risk trajectories of individuals. Before murdering Fusilier Lee Rigby, Michael Adebawale expressed on his Facebook account a desire to murder a soldier because of United Kingdom's military actions in Iraq and Afghanistan (Gill, 2015). These online exchanges, which occurred five months before the attack, showed he had no definite plan but believed that the security arrangements guarding the soldiers' places of work would make an attack difficult so he was considering less secure locations (Intelligence

and Security Committee Report, 2014). In other words, if law enforcement agencies had been able to detect and identify Adebowale in advance, the murder of Fusilier Lee Rigby might have been averted.

Thus, the growing concern of prioritisation and online risk assessment warrants the need to gain a more nuanced understanding of the threat posed by individuals who may be radicalised via the Internet. The failure to do so may lead to the underestimation of the threat and adversely impact law enforcement agencies' capability to implement effective counter measures.

Having outlined three relevant domains (i.e., person-centric [risk] domain, system-centric [risk] domain, and protective domain) from the behavioural sciences perspective, this paper has sought to facilitate an understanding and appreciation of how insights from the said domains may be used to identify individuals at risk of being radicalised via the Internet. It would therefore be important to continue investigating how and why violent extremist groups and their potential recruits use the Internet from this perspective.

### Development of online risk assessment tools

The identification of insights from these three domains can serve as potential reference points that law enforcement practitioners can utilise to identify early warning signs and establish targeted intervention initiatives. Guided by this rationale, the author and his team at the Home Team Behavioural Sciences Centre have created an 'Online Violent Extremism Screening Tool (OVEST)' to identify individuals among the general population who may potentially be engaging in online violent extremism. By developing a list of behavioural warning signs based on person-centric (risk) domain, system-centric (risk) domain, and protective domain,

OVEST has been designed as a cyber-focused risk assessment framework to identify individuals based on their cyber-related behaviours and content. This in turn would contribute pertinent information to determine the risk trajectories of such individuals.

“Thus, the growing concern of prioritisation and online risk assessment warrants the need to gain a more nuanced understanding of the threat posed by individuals who may be radicalised via the Internet.”

Thus, the identification of these three domains can be used by law enforcement agencies, policymakers and the academic community to develop countermeasures to undermine online violent extremism. More importantly, it also helps us to appreciate how the Internet

may shape one's behaviours and attitudes, and perhaps even increase one's involvement in online violent extremism over time.

## REFERENCES

- Ashour, O. (2009). *The de-radicalisation of jihadists: Transforming armed Islamist movements*. New York, NY: Routledge.
- Baines, P. R., O'Shaughnessy, N. J., Nicholas, J., Moloney, K., Richards, B., Butler, S., & Gill, M. (2006). Muslim voices: The British Muslim response to Islamic video-polemic: An exploratory study. *Cranfield University School of Management Working Paper Series*, 3(6), 1-28.
- Bandura, A. (2004). The Role of Selective Moral Disengagement in Terrorism and Counterterrorism. In F. M. Moghaddam, & A. J. Marsella (Eds.), *Understanding terrorism: Psychosocial roots, causes and consequences* (pp. 121-150). Washington, DC: American Psychological Association.
- Bartlett, J. (2008). *'Wicked' jihad and the appeal of violent extremism*. London: DEMOS.
- Behr, I. von, Reding, A., Edwards, C., & Gribbon, L. (2013). *Radicalisation in the digital age: The use of the Internet in 15 cases of terrorism and extremism*. Santa Monica, CA: RAND Corporation.
- Bermingham, A., Conway, M., McInerney, L., O'Hare, N., & Smeaton, A.F. (2009). *Combining social network analysis and sentiment analysis to explore the potential for online radicalisation*. Paper presented at Advances in Social Networks Analysis and Mining [ASONAM], July 20-22, 2009, Athens, Greece.

- Bjørge, T., & Horgan, J. (2009). *Leaving terrorism behind: Individual and collective disengagement*. London: Routledge.
- Bowman-Grieve, L. (2009). Exploring "Stormfront": A virtual community of radical right. *Studies in Conflict & Terrorism*, 32(11), 989-1007.
- Bowman-Grieve, L. (2011). The Internet & terrorism: Pathways toward terrorism & counter-terrorism. In A. Silke (Ed.), *Psychology, Terrorism and Counterterrorism* (pp. 76-88). Abingdon, Oxon: Routledge.
- Bowman-Grieve, L. (2015). Cyberterrorism and moral panics: A reflection on the discourse of cyberterrorism. In L. Jarvis, S. Macdonald, & T. M. Chen (Eds.), *Terrorism online: Politics, law and technology* (pp. 86-106). New York, NY: Routledge.
- Brachman, J. M., & Levine, A. N. (2011). You too can be awlaki!. *The Fletcher Forum of World Affairs*, 35(1), 25-46.
- Conway, M. (2012). Introduction: terrorism and contemporary mediascapes – reanimating research on media and terrorism. *Critical studies on terrorism*, 5(3), 445-453.
- Cragin, R. K. (2014). Resisting violent extremism: A conceptual model for non-radicalisation. *Terrorism and Political Violence*, 26, 337-353.
- Dauber, C. E., & Winkler, C. K. (2014). Radical visual propaganda in the online environment: An introduction. In C. K. Winkler, & C. E. Dauber (Eds.), *Visual propaganda and extremism in the online environment* (pp. 1-30). Carlisle, PA: Strategic Studies Institute and U.S. Army War College Press.
- Dean, G. (2014). *Neurocognitive risk assessment for the early detection of violent extremists*. New York, NY: Springer.
- Dillon, L., Neo, L. S., Ong, G., & Khader, M. (2014). *Online radicalisation: A case study on Roshonara Choundry* (Research report No. 14/2014). Singapore: Home Team Behavioural Sciences Centre.
- Edwards, C., & Gibbon, L. (2013). Pathways to violent extremism in the digital era. *The RUSI Journal*, 158(5), 40-47.
- Eidelson, R. J., & Eidelson, J. I. (2003). Dangerous ideas: Five beliefs that propel groups toward conflict. *American Psychologist*, 58(3), 182-192.
- Europol. (2014). *TE-SAT 2014. European Union terrorism situation and trend report 2014*. EU: European Law Enforcement Agency.
- Gardner, F. (2013, November 2). How do terrorists communicate? *BBC News*. Retrieved from <http://www.bbc.co.uk/news/world-24784756>
- Geraerts, S. (2012). Digital radicalisation of youth. *Social Cosmos*, 3(1), 25-32.
- General Intelligence and Security Service [AIVD] (2012). *Jihadism on the web: A breeding ground for jihad in the modern age*. The Hague: Algemene Inlichtingen en Veiligheidsdienst.
- Gill, P. (2015). *Lone-actor terrorists: A behavioural analysis*. New York, NY: Routledge.
- Gupta, D. K. (2011). Waves of international terrorism: An exploration of the process by which ideas flood the world. In J. E. Rosenfeld (Ed.), *Terrorism, identity and legitimacy: The four waves theory and political violence* (pp. 30-43). New York, NY: Routledge.
- Hider, J. (2010, January 1). Double life of 'gifted and polite' terror suspect Umar Farouk Abdulmutallab. *The Times*. Retrieved from [http://www.timesonline.co.uk/tol/news/world/middle\\_east/article6973007.ece](http://www.timesonline.co.uk/tol/news/world/middle_east/article6973007.ece)
- Halverson, J. R., & Way, A. K. (2012). The curious case of Coleen LaRose: Social margins, new media, and online radicalisation. *Media, War & Conflict*, 5(2), 139-153.
- Honey, M., Culp, K., & Spielvogel, R. (2005). Critical issues: Using technology to improve student achievement. *North Central Regional Educational Laboratory*. Retrieved from <http://www.ncrel.org/sdrs/areas/issues/methods/techlgy/te800.htm#researchresult>
- Horgan, J. (2005). *The psychology of terrorism*. New York, NY: Routledge.
- Hussain, G., & Saltman, E. M. (2014). *Jihad trending: a comprehensive analysis of online extremism and how to counter it*. London: Quilliam Foundation.
- Intelligence and Security Committee Report. (2014). *Report on the intelligence relating to the murder of Fusilier Lee Rigby*. London: Controller of Her Majesty's Stationery Office.
- Knop, K. von. (2007). Countering web-based Islamist narratives: Conceptualising an information war and a counter-propaganda campaign. In B. Ganor, K. V. Knop, & C. Duarte (Eds.), *Hypermedia seduction for terrorist recruiting* (pp. 245-266). Washington, DC: IOS Press.
- Kossowska, M., Trejtowicz, M., de Lemus, S., Bukowski, M., Van Hiel, A., & Goodwin, R. (2011). Relationships between right-wing authoritarianism, terrorism threat, and attitudes towards restrictions of civil rights: A comparison among four European countries. *British Journal of Psychology*, 102(2), 245-259.

- Kruglanski, A. W. (2014, October 28). Psychology not theology: Overcoming ISIS' secret appeal. *E-International Relations*. Retrieved from <http://www.e-ir.info/2014/10/28/psychology-not-theology-overcoming-isis-secret-appeal/>
- Lemieux, A. F., Brachman, J. M., Levitt, J., & Wood, J. (2014). Inspire Magazine: A Critical Analysis of its Significance and Potential Impact Through the Lens of the Information, Motivation, and Behavioral Skills Model. *Terrorism and Political Violence*, 26(2), 354-371.
- Leonard, G. (2009, December 31). Sex torment drove him nuts. *The New York Post*. Retrieved from <http://nypost.com/2009/12/30/sex-torment-drove-him-nuts/>
- McCauley, C., & Moskalenko, S. (2011). *Friction: How radicalization happens to them and us*. Oxford, London: Oxford University Press.
- Mihailidis, P., & Thevenin, B. (2013). Media literacy as core competency for engaged citizenship in participatory democracy. *American Behavioral Scientist*, 57(11), 1611-1622.
- National Intelligence Estimates. (2006). *Trends in global terrorism: Implications for the United States*. US: United States National Intelligence Council.
- Neo, L. S., Khader, M., Ang, J., Ong, G., & Tan, E. (2014). Developing an early screening guide for jihadi terrorism: A behavioural analysis of 30 terror attacks. *Security Journal*. Advance online publication. doi: 10.1057/sj.2014.44.
- Neo, L. S., Khader, M., Shi, P., Dillon, L., & Ong, G. (2015). *Extremist cyber footprints: A guide to understanding and countering online extremism*. Singapore: Home Team Behavioural Sciences Centre.
- Neo, L. S., Singh, K., Khader, M., Ang, J., & Ong, G. (2013). *Understanding Internet-mediated radicalisation: A theoretical C3PO pathway framework* (Research report No. 05/2013). Singapore: Home Team Behavioural Sciences Centre.
- Neumann, P. R. (2012). *Countering online radicalisation in America*. US: Bipartisan Policy Center.
- Pilkington, E. (2010, March 10). Colleen LaRose: All-American neighbour or terrorist Jihad Jane? *The Guardian*. Retrieved from <http://www.guardian.co.uk/world/2010/mar/10/colleen-la-rose-jihad-jane-terrorism-arrest>
- Pressman, D. E., & Flockton, J. S. (2012). Calibrating risk for violent political extremists: The VERA-2 Structural Assessment. *The British Journal of Forensic Practise*, 14(4), 237-251.
- Prince, R. (2012, February 16). God is great, says underpants bomber as he is jailed for life. *The Telegraph*. Retrieved from <http://www.telegraph.co.uk/news/worldnews/al-qaeda/9087698/Underpants-bomber-sentence-God-is-great-says-Umar-Farouk-Abdulmutallab-as-he-is-jailed-for-life.html>
- Rabasa, A., Pettyjohn, S. L., Ghez, J. J., & Boucek, C. (2010). *Deradicalising Islamist extremists*. Santa Monica, CA: RAND Corporation.
- Radlauer, D. (2007). Virtual communities as pathways to extremism. In B. Ganor, K. V. Knop, & C. Duarte (Eds.), *Hypermedia seduction for terrorist recruiting* (pp. 67-75). Washington, DC: IOS Press.
- Reinares, F. (2012). Exit from terrorism: A qualitative empirical study on disengagement and deradicalisation among members of ETA. *Terrorism and Political Violence*, 23(5), 780-803.
- Rieger, D., Frischich, L., & Bente, G. (2013). *Propaganda 2.0 Psychological effects of right-wing and Islamic extremist Internet videos*. Germany: German Federal Criminal Police Office.
- Rogan, H. (2007). *Al-Qaeda's online media strategies: From Abu Reuter to Irhabi 007*. Norway: Norwegian Defence Research Establishment (FFI).
- Saifudeen, O. A. (2014). *The cyber extremism orbital pathways model*. Singapore: S.Rajaratnam School of International Studies.
- Samuel, T. K. (2012). *Youth, radicalisation and the influence of social media. Social media in a crisis – effective engagement in the digital age*. RSIS Workshop, Marina Mandarin hotel, Singapore.
- Seib, P., & Janbek, D. M. (2011). *Global terrorism and new media: The post-Al Qaeda generation*. New York, NY: Routledge.
- Silber, M. D., & Bhatt, A. (2007) *Radicalization in the West: The Home Grown Threat*. NY: New York Police Department.
- Steven, T., & Neumann, P. R. (2009). *Countering online radicalisation: A strategy for action*. London: The International Centre for the Study of Radicalisation and Political Violence.
- Tan, E. (2006). *Road to radicalisation: A psychological analysis of the Jemaah Islamiyah group and its members* (Research report No. 01/2006). Singapore: Behavioural Sciences Unit.
- Torok, R. (2013). Developing an explanatory model for the process of online radicalisation and terrorism. *Security Informatics*, 2, 1-10.



Torres-Soriano, M. R. (2012). Between the pen and the sword: the global Islamic media front in the west. *Terrorism and Political Violence*, 24, 769-786.

United Nations Office on Drugs and Crime. (2012). The use of the internet for terrorist purposes. Retrieved from [http://www.unodc.org/documents/frontpage/Use\\_of\\_Internet\\_for\\_Terrorist\\_Purposes.pdf](http://www.unodc.org/documents/frontpage/Use_of_Internet_for_Terrorist_Purposes.pdf)

Weimann, G. (2004). *www.terror.net: How modern terrorism uses the Internet*. Special Report No.116. Washington, DC: United States Institute of Peace.

Weimann, G. (2007). Virtual terrorism: How modern terrorists use the Internet. In I. Banerjee (Ed.), *The Internet and Governance in Asia: A Critical Reader* (pp. 189-216). Singapore: Nanyang Technological University.

Wilner, A. S., & Dubouloz, C. (2011). Transformative radicalisation: Applying learning theory to Islamist radicalisation. *Studies in Conflict & Terrorism*, 34, 418-438.

Zelin, A. Y., Kohlmann, E. F., & al-Khouri, L. (2013). *Convoy of Martyrs in the Levant*. US: Flashpoint partners.

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# Singaporean Liars Nod More and Fidget Less: A Study in Detecting Deception during Investigative Interviews

by Stephanie Chan, Majeed Khader, Jansen Ang and Jeffery Chin  
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## INTRODUCTION

The detection of deception in investigative interviewing is an essential yet challenging task. Defined as the detection of intentional and purposeful attempts to mislead others without prior warning, regardless of the success or failure of the attempt (Vrij, 2008a), the detection of deception requires interviewers to sieve through a multi-channel presentation of information, comprising of noticeable body movements, vocal presentations during speech, and verbal content of speech. To complicate interviewers' efforts, interviewees can be forgetful, mistaken, distrustful or deliberately deceptive (Hannibal & Mountford, 2002). In such cognitively demanding interview situations, investigative interviewers have long sought a set of straightforward and easily observable cues to assess a subject for truthfulness.

Observing non-verbal communication (i.e. a combination of both visual and vocal cues) for the purpose of distinguishing lies from truths is often used in many contexts; within academia,

“ In daily interactions, people reflexively observe the body language of others to decide whether someone is lying or telling the truth. ”

there is a prominent corpus of work exploring body language. In daily interactions, people reflexively observe the body language of others to decide whether someone is lying or telling

the truth (DePaulo, Kashy, Kirkendol, Wyer, & Epstein, 1996). In formal interactions, such as job interviews (Weiss & Feldman, 2006) and court appearances (Feldman & Chesley, 1984;

Kaufmann, Drevland, Wessel, Overskeid, & Magnussen, 2003), the influence of a person's body and demeanour on the impressions they make on others is also evident. Hence, it is no surprise that for investigative interviewing situations, there is similar reliance on interviewee body language to aid deception detection (Mann, Vrij, & Bull, 2004; Meissner & Kassin, 2002; Kassin, 2005; Vrij, 2008b).

In some countries, police training manuals emphasise body language as a major channel of information (Gudjonsson, 2005), contributing to a high reliance placed by officers on behavioural cues to deception. Indeed, there have also been investigative circumstances (e.g. reports of intimate partner violence and child sexual abuse) in which body language becomes a useful source of information, particularly when evidence and eyewitness statements are insufficient to determine speech content veracity (Hlavka, Kruttschnitt, & Carbone-Lopez, 2007; Jones & McGraw, 1987). Ultimately, it benefits investigators and researchers of this domain to study the body language that is exhibited in investigative interviewing settings, for the purpose of exploring the link between body language and deception.

## IN WHAT WAYS DO LIARS AND TRUTH TELLERS BEHAVE DIFFERENTLY?

Deception research typically provides for a comparison of deceptive participants and truth-telling participants, for the main purpose of examining between-group differences. Studies on behavioural deception cues have been going on for decades, with various developments and variations in research study attempts (Vrij,

Granhag, & Porter, 2010; Zuckerman, DePaulo, & Rosenthal, 1981).

One influential meta-analysis conducted in 2003 reviewed two decades of studies (DePaul, Lindsay, Malone, Muhlenbruck, Charlton, & Cooper, 2003). The authors found that the bulk of significant cues to deception with large effect sizes turned out not to be behavioural cues but verbal and vocal cues. [Effect size is a way of quantifying the difference between two groups. In this case, it is especially useful in understanding “Which deception cues are most useful in picking out liars?” across two decades’ worth of studies.] The only behavioural cue with a large effect size was a “nervous/tense” impression (p. 95). Nevertheless, significant behavioural cues, with small effect sizes, were found: less hand/finger movements, less illustrators, and less facial pleasantness. [Illustrators are gestures that people make when they are speaking, to supplement what is being said. For example, pointing to the left when talking about an item on the left side of a room (Vrij, 2008a).] For particular studies where participants were motivated to either lie or tell the truth, lying participants exhibited lesser foot movements and eye contact, and showed a nervous/tensed impression. For particular studies where participants had committed a transgression, lying participants exhibited lesser foot movements, more blinking, and showed a nervous/tensed impression. It could thus be surmised that lying participants tried harder to control their behaviour, or were overly taxed by the mental effort needed to lie convincingly, resulting in a general observation of behavioural rigidity.

At present, research findings on behavioural cues to deception are still inconclusive. Also, these studies have largely been conducted in Western countries (DePaulo et al., 2003), limiting the generalisability of research findings to that of European and American participant pools. Although some researchers presumed that

factors of culture and ethnicity have no influence on the mechanisms underlying deceptive non-verbal behaviours (Vrij, 2008a), the lack of extensive cross-cultural deception research indicates a need to replicate the research using an Asian sample. This study by the Home Team Behavioural Sciences Centre (HTBSC) is the first to examine truth-lie behaviours involving South-East Asian participants.

## WHAT OUR STUDY MEASURED

### Body Movements

Our study examined the body movements of Singaporean liars and truth-tellers in mock investigative settings. In particular, we observed gaze aversion, the movements of the head, torso and legs, as well as three specific categories of hand movements - self-adaptors, illustrators and hand/finger movements. [Self-adaptors are hand movements to make one feel more comfortable, such as scratching, adjusting of clothing, touching of the hair, etc. (Vrij, 2008a).] Body movements requiring specific calibrated instruments to measure, such as eye blinks and pupil dilation, were not studied. Also, behaviours requiring subjective judgements, such as facial pleasantness and nervousness, were not studied.

In line with behavioural deception research (DePaulo et al., 2003; Zuckerman et al., 1981), one of the aims of the study was to see if liars, as compared to truth-tellers, would exhibit more and longer gaze aversion, and lesser movements of the head, torso, legs, and hands during investigative scenarios (Hypothesis 1).

### Emotions Associated with Deception

Emotions typically associated with deception are guilt, fear, anxiety, and excitement, which are most likely to be experienced during high-stakes interviews (Frank, Yarbrough, & Ekman,

“ This study by the Home Team Behavioural Sciences Centre (HTBSC) is the first to examine truth-lie behaviours involving South-East Asian participants. ”

2006). Presently, there is lesser focus on this area (Vrij et al., 2010), one of the reasons being that truth-tellers can also experience emotions, particularly fear and anxiety of not being believed. Nevertheless, emotions of guilt and excitement (i.e. 'duping delight' at fooling the interviewer) can be experienced more strongly by deceptive suspects, and associated with more gaze aversion (Vrij, 2008a). Thus, it was predicted that participants in the deceptive condition would report greater emotions than participants in the truthful condition (Hypothesis 2).

## STUDY METHODOLOGY

### Participants

Seventy-one police trainees participated in this study after giving informed consent. Two of the participants lied when they were supposed to tell the truth, hence they were taken out of the sample. Another participant was found to score poorly for the motivation check question, and was likewise taken out of the sample. [The motivation check question assesses if the participant was motivated to be convincing in the interview segment. A low score indicates that the participant did not take the study scenario seriously.] Of the remaining sample, their ages ranged from 18 to 25 years ( $M = 19.21$  years,  $SD = 1.00$  years).

### Study Procedure

To observe for differences in the behaviours of deceptive suspects and innocent suspects during interviews, the study comprised two conditions: truthful and deceptive. Participants were randomly assigned to one of the two conditions and they individually carried out a task before being interviewed.

Participants in the deceptive condition had to commit a mock theft by stealing a purse that was taped to a table in another room in the building. To increase crime saliency, the collection of items on the table mimicked that of a typical office work area, and the contents of a handwritten post-it note on the table gave an impression that

the 'owner' of the items would return shortly. Due to the clutter on the table, participants had to move some of the other items in order to locate and steal the purse. Participants in the truthful condition likewise headed to the same room but were explicitly instructed not to touch anything on the table.

All participants were individually interviewed and had to convince the interviewer of their innocence. For participants in the deceptive condition, they were required to hide the stolen purse on themselves during the interview, in order to heighten the criminal saliency of lying to the interviewer. The researcher informed them that failure to be successfully convincing would incur a punishment of writing a detailed statement of their actions. A positive reinforcement was also provided as the researcher challenged participants to "see how good you are at convincing people", and informed them that the most convincing participant would be awarded a prize. The dual possibilities of negative and positive consequences were employed to increase participant motivation. In reality, none of the participants would receive the negative punishment.

The interview procedure was based on the United Kingdom's PEACE model (Gudjonsson, 2005), and proceeded in the following order: introduction, free recall, clarification/probing, and conclusion. Interviewers were civilian staff who were not aware of the tasks assigned to their interviewees. The interviewers were blind to the conditions of the study. The average length of the interviews was 7 minutes 13 seconds.

Immediately after the interview, participants filled out a post-interview questionnaire that measured their self-reported emotions experienced during the interview. Upon completion, they were informed that they had successfully convinced their interviewer and therefore would not be punished. Participants were subsequently debriefed and thanked for their participation.

## CODING THE BODY MOVEMENTS

All video-taped interviews were analysed for the following eight behavioural deception cues, as commonly examined in deception research (Granhag & Stromwall, 2002; Stromwall, Hartwig, & Granhag, 2006; Vrij et al., 2010):

- Gaze aversion, duration: number of seconds throughout the interview when the participant did not have eye contact with the interviewer.
- Gaze aversion, frequency: number of times the participant broke eye contact with the interviewer
- Head movements: frequency of visible head movements, in which a short succession of quick nods or shakes was scored as one movement.
- Illustrators: frequency of hand and arm movements that amplified, complemented, or modified the participant's verbal speech.
- Self-adaptors, also known as self-manipulations: frequency of scratching the hand, touching the head/hair, adjusting articles of clothing, etc. A short succession of quick scratches was scored as one movement.
- Hand and finger movements: frequency of finger and hand movements without movement of the arms.
- Trunk movements: frequency of visible forward, backward or sideward movements of the trunk. Clearly visible shifting of positions while seated was also scored.
- Leg and foot movements: frequency of leg and foot movements, in which a short series of leg shakes were scored as one movement.

“A combination of (more) head movements and (lesser) hand/finger movements was the most influential in differentiating the truthful group from the deceptive group.”

During the coding process, gaze aversion (duration) and gaze aversion (frequency) proved difficult to code even though the videotapes were

analysed at  $\frac{1}{4}$  of the actual speed to enable a more accurate and precise coding process. The authors also noted occasional rapid eyeball movements in a notable number of the interview clips. As coding accuracy for gaze aversion (duration) and gaze aversion (frequency) might have been affected despite best efforts to reduce video speed, enlarge the screen, and replay interview segments, the authors decided to leave these two cues out of the later data analysis.

For six cues from 'head movements' to 'leg and foot movements', two raters independently coded the videotapes. As the videotapes were coded without the audio input, both raters were blind to the veracity status of the participants.

## RESULTS OF THE STUDY

### Interview Behaviours

To examine for differences in the interview behaviours between truth tellers and liars, a one-way MANOVA<sup>1</sup> and a discriminant function analysis was carried out on the six remaining dependent variables: head movements, illustrators, hand/finger movements, self-adaptors, trunk movements, and leg/foot movements. The MANOVA showed that the combination of six cues were significant in differentiating between the lying group and the truthful group,  $F(6, 61) = 2.40, p < .05$ ; Wilk's  $\lambda = .81$ , partial  $\Sigma^2 = .19$ . Also, a combination of (more) head movements and (lesser) hand/finger movements was the most influential in differentiating the truthful group from the deceptive group.

The accuracy of the above model in predicting group membership was above chance. 64.7% of the truthful group was correctly categorised as belonging to the truthful group; and 61.8% of

<sup>1</sup> MANOVA is the acronym for Multivariate ANalysis Of VAriance. It is a statistical test that is used to compare the mean differences between groups, when there are numerous dependent variables. Multiple t-tests were not used in this study to examine differences between liars and truth tellers, so as to reduce the chance of false positives (i.e. Type I error).

the deceptive group was correctly categorised as belonging to the deceptive group.

### Emotions felt by Liars and Truth-Tellers

Independent t-tests were conducted to examine for between-group differences in emotions experienced (see Table 1). Participants in the deceptive condition ( $M=2.15$ ,  $SD=1.23$ ) significantly reported feeling guiltier during their interview than participants in the truthful condition ( $M=1.12$ ,  $SD=0.41$ ),  $t(66) = -4.62$ ,  $p < .05$ . No significant differences were found for the other variables of excitement and anxiety felt.

*Table 1. Means and Standard Deviations for Anxiety, Excitement, and Guilt*

Variable	Truthful		Deceptive	
	M	SD	M	SD
Anxious	2.32	1.00	2.44	1.08
Excited	3.44	1.19	3.71	1.29
Guilt	1.12	0.41	2.15	1.23

## DISCUSSION OF STUDY FINDINGS

This is the first local study related to behavioural deception cues, utilising the context of a forensically relevant crime scenario. The major findings are discussed, with consideration for implications in investigative interviewing.

### Behavioural Deception Cues were Similar to International Research

The MANOVA analysis showed that deception had a significant effect on a combination of the participants' movements of the head, trunk, hands, and legs, with an ability to distinguish membership of the truthful (64.7%) and deceptive (61.8%) groups. This was an indication that this particular combination of cues (i.e. head movements, hand/finger movements, illustrators, self-adaptors, trunk movements, and leg/foot movements) was able to aid in differentiating liars from truth tellers slightly above chance

levels. Further discriminant analyses showed that two particular cues – hand/finger movements and head movements – were the most influential in differentiating the behaviours of liars from those of truth tellers. In other words, deception was best associated with a combination of lesser hand/finger movements and increased head movements.

The association between deception and lessened hand/finger movements has been noted in recent research studies (Vrij, 1995). There are two possible explanations. One, it is possible that when liars try too hard to convince an interviewer, the resultant mental effort causes a decrease in body movements (Vrij, Mann, Fisher, Leal, Milne, & Bull, 2008). Hands, fingers and limbs are areas that have been observed to decrease in movement when a person is experiencing increased mental load.

Alternatively, participants in this study might have been motivated to control their hand movements for reasons of self-presentation (DePaulo, 1992), and thus paid close attention to their hands and limited their fidgeting. In a study involving 64 university students from Amsterdam (Vrij, 1995), participants individually went through two simulated police interviews, in which they had to alternately lie or tell the truth regarding the possession of a set of headphones. It was found that there was a decrease in hand/finger movements when participants were deceiving their interviewer, suggesting to the researchers that conscious control of behaviour was attempted during the deceptive attempts.

As for the association between deception and increased head movements of nods and shakes, it was contrary to our expectations as we had anticipated more controlled head movements amongst liars (Zuckerman et al., 1981). However, such a result is not unprecedented as other studies have obtained similar findings of increased head movements (Vrij, 2008a). The study by Davies and colleagues (2005) in particular, attributed the finding of increased head shaking to deceptive suspects “protesting too much” (p. 699) – a form of exaggerated emphasis. Given that nods

and head shakes carry lexical connotations, the use of exaggerated head movements by liars in the present study therefore appears to be a deliberate form of self-presentation via non-word communication.

### Liars Felt Guiltier than Truth Tellers

Pertaining to emotions experienced by participants during their interviews, the independent t-tests showed that deception was associated with stronger feelings of guilt, and that contrary to expectations, no significant associations with anxiety or excitement were found. In general, all participants had low levels of anxiety but felt exhilarated they were able to convince their interviewer. Lying participants had slightly higher scores but this was not significant.

### Implications for Deception Detection in Investigative Interviewing

This combination of six behavioural cues – head movements, hand/finger movements, illustrators, self-adaptors, trunk movements, and leg/foot movements – and in particular, increasing head movements and decreasing hand/finger movements, were found to differentiate the deceptive group from the truthful group. Such results are useful for investigators who require an easily observable information channel to aid their assessments of suspect truthfulness or guilt.

Furthermore, the use of a South-East Asian sample is a unique feature of this study, as published research studies in the literature have mainly used participants from Europe and America, with a handful of studies conducted in Japan (DePaulo et al., 2003). There are existing opinions within the deception literature that non-verbal behaviour, including body language, can be “culturally mediated” (Vrij,

2008a, p. 179). This is the idea that cultural norms may implicitly influence people’s behaviours when they wish to make an impression (i.e. honest/friendly/helpful/calm impressions, or otherwise) on others. This has implications on cross-cultural investigative interviewing, as differing cultural norms between investigator and suspect might result in inaccurate interpretations of deception. Thus, it is hoped that this study has contributed new perspectives to the existing literature.

Nevertheless, the differences in movements observed in this study were very minimal and of frequencies that were rarely noticeable. By comparing the statistical means, we found that head movements by liars approximated 3 times per minute whereas those by truth-tellers approximated 2 times per minute. Likewise, hand/finger movements by liars approximated 4 times per minute whereas those by truth-tellers approximated 6 times per minute. Obviously, we are not suggesting that investigators count the number of head and hand/finger movements to arrive at their decisions. Instead, in line with a broader perspective of the overall deception literature (DePaulo et al., 2003; Zuckerman et al., 1981), they should take the observation of rigidity in body movements (e.g. decreased hand/finger movements) and actions with exaggerated emphasis (e.g. increased head nods and shakes) as ‘red flags’ to prompt further investigation.

“ In line with a broader perspective of the overall deception literature, they (investigators) should take the observation of rigidity in body movements (e.g. decreased hand/finger movements) and actions with exaggerated emphasis (e.g. increased head nods and shakes) as ‘red flags’ to prompt further investigation. ”

Investigators might also wish to contrast the observed behaviours with the suspect’s verbal statements, to check for inconsistencies between

the two channels of communication (Vrij, 2008b). After all, it is advisable for investigators to have a holistic interpretation of a suspect’s interview performance before making judgements of veracity (Porter & ten Brinke, 2010).

## STUDY LIMITATIONS AND FUTURE RESEARCH DIRECTIONS

Regarding the extent to which the study findings can be generalised to real-life investigative settings, there are a few study limitations to consider. The first limitation concerns the study design, which involves a simplistic mock theft. The use of such a scenario was for purposes of constructing a straightforward yet psychologically relevant design to influence participants' decisions to lie in the deceptive condition. Nevertheless, the simplicity might have reduced participants' perspectives of the strength of evidence (Van der Sleen, 2009), which could influence deceptive suspects' underlying mechanisms of cognitive load and anxiety. However, there are existing real-life crimes with very few supporting evidence, so the theft scenario used in this study is still relevant. Moreover, some of the truthful participants in the present study did show similar behaviours observed in real-life innocent suspects, such as forgetting the layout of the room and being anxious that the interviewer did not believe them.

The second limitation concerns the post-interview questionnaire items that measured emotions experienced. For this study, the emotions were self-reported, and thus the ratings could have been dependent on participants' recall of their interview behaviours, their conscious awareness of their own internal state, or their personal preference to project a confident and non-anxious image via their questionnaire responses (i.e. social desirability). Although efforts were made to ensure the questionnaire was done immediately after the interview, and to reassure participants that their responses were kept anonymous and would not affect the interviewer's judgements of them, future studies might wish to consider more sensitive methods of measuring the underlying mechanisms.

The third limitation concerns the lack of realistic high stakes that are commonly present

in forensic cases. In the absence of access to videotapes of actual investigative interviews in Singapore, the study was designed to contain manipulation checks, as a precaution to measure truthful participants' motivation to convince the interviewer of their innocence and deceptive participants' motivation to deceive the interviewer. In addition, during the pre-interview segment of the study, the instructions to participants were specifically worded in neutral terms to increase deceptive participants' intrinsic motivation to lie, by deliberately instructing participants to "try your best to convince the interviewer that you are innocent, that you did not take the coin purse". The instructions specifically avoided the use of words such as "lie", "trick", and "fool the interviewer". Testifying to the influence of the wording, two participants in the truthful condition consciously chose to lie in their interviews about being in the designated room, strategising that their lies might be more convincing than telling the truth of their whereabouts. The two participants were removed from the study.

The fourth limitation concerns the use of a male sample, with the absence of female participants. As the purpose of this study and its hypotheses were straightforward in nature -to examine for differences in behaviours and underlying mechanisms between liars and truth tellers - within-group factors (e.g. personality, age, gender, race, etc.) were not analysed. In the deception literature, no influence of gender was found on cognitive load, emotions experienced and attempted control (Vrij, 2008a).

We believe, however, that these study limitations should be taken as suggestions for possible future research. Perhaps researchers could consider other types of crime scenarios, construct more sensitive methods of measuring the underlying mechanisms, or examine interviewees' strategies and their beliefs about the cues to honesty and cues to deception, to increase understanding of deceptive behaviours in investigative interviews.



## CONCLUSION

The detection of deception is an essential component of investigative interviewing, in order to ensure accurate judgements are made of a suspect's culpability. The observation of suspects' body language is one such easily observable information channel that many investigators already utilise to assess for truthfulness. Our study has shown that with Singaporean interviewees, deception is associated with increased head movements and decreased hand/finger movements. In other words, Singaporean liars are more likely to nod or shake their heads, but control their finger movements when attempting to deceive investigators. In investigative interviews, officers might wish to consider paying more attention to interviewees who are displaying behaviours indicating that they are thinking hard (e.g. behavioural rigidity while trying to answer simple interview questions) and engaging in exaggerated attempts to create a likeable or helpful impression.

## REFERENCES

- Chan, Stephanie, Khader, Majeed, Ang, Jansen, Chin, Jeffery & Chai, Whistine. (2015) To behave like a liar: Nonverbal cues to deception in an Asian sample. *Journal of Police and Criminal Psychology*, 1-8. doi: 10.1007/s11896-015-9177-2.
- Davis, M., Markus, K. A., Walters, S. B., Vorus N., & Connors, B. (2005). Behavioral cues to deception vs. topic incriminating potential in criminal confessions. *Law and Human Behavior*, 29, 683-704. doi: 10.1007/s10979-005-7370-z.
- DePaulo, B. M. (1992). Nonverbal behaviour and self-presentation. *Psychological Bulletin*, 111, 203-243. doi: 10.1037/0033-2909.111.2.203.
- DePaulo, B. M., Lindsay, J. J., Malone, B. E., Muhlenbruck, L., Charlton, K., & Cooper, H. (2003). Cues to deception. *Psychological Bulletin*, 129, 74-118. doi: 10.1037/0033-2909.129.1.74.
- DePaulo, B. M., Kashy, D. A., Kirkendol, S. E., Wyer, M. M., Epstein, J. A. (1996). Lying in everyday life. *Journal of Personality and Social Psychology*, 70, 979-995. doi: 10.1037/0022-3514.70.5.979.
- Feldman, R. S., & Chesley, R. B. (1984). Who is lying, Who is not: An attributional analysis of the effects of nonverbal behaviour on judgements of defendant believability. *Behavioral Sciences & The Law*, 2, 451-460. doi: 10.1002/bsl.2370020411.
- Frank, M. G., Yarbrough, J. D., & Ekman, P. (2006). Investigative interviewing and the detection of deception. In Williamson, T. (Ed.), *Investigative Interviewing: Rights, research, regulation* (pp. 229-255). Devon, UK: Willan Publishing.
- Granhag, P. A., & Stromwall, L. A. (2002). Repeated interrogations: Verbal and non-verbal cues to deception. *Applied Cognitive Psychology*, 16, 243-257. doi: 10.1002/acp.784.
- Gudjonsson, G. H. (2005). *The psychology of interrogations and confessions: A handbook* (3rd ed.). West Sussex, UK: John Wiley & Sons, Ltd.
- Hlavka, H. R., Kruttschnitt, C., & Carbone-Lopez, K. C. (2007). Revictimizing the victims? Interviewing women about interpersonal violence. *Journal of Interpersonal Violence*, 22, 894-920. doi: 10.1177/0886260507301332.
- Hannibal, M., & Mountford, L. (2002). *The law of criminal and civil evidence: Principles and practice*. Essex, England: Pearson Education.
- Jones, D., & McGraw, J. M. (1987). Reliable and fictitious accounts of sexual abuse to children. *Journal of Interpersonal Violence*, 2, 27-45. doi: 10.1177/088626087002001002.
- Kassin, S. M. (2006). A critical appraisal of modern police interrogations. In Williamson, T. (Ed.), *Investigative interviewing: Rights, research and regulation* (pp.207-228). Devon, UK: Willan Publishing.
- Kaufmann, G., Drevland, G. C., Wessel, E., Overskeid, G., & Magnussen, S. (2003). The importance of being earnest: Displayed emotions and witness credibility. *Applied Cognitive Psychology*, 17, 21-34. doi: 10.1002/acp.842.
- Mann, S., Vrij, A., & Bull, R. (2004). Detecting true lies: Police officers' ability to detect deceit. *Journal of Applied Psychology*, 89, 137-149. doi: 10.1037/0021-9010.89.1.137.
- Meissner, C. A., & Kassin, S. M. (2002). "He's guilty!": Investigator bias in judgments of truth and deception. *Law and Human Behavior*, 26, 469-480. doi: 10.1023/A:1020278620751.

- Porter, S., Doucette, N. L., Woodworth, M., Earle, J., & MacNeil, B. (2008). Half the world knows not how the other half lies: Investigation of verbal and non-verbal signs of deception exhibited by criminal offenders and non-offenders. *Legal and Criminological Psychology, 13*, 27-38. doi: 10.1348/135532507X186653.
- Porter, S., & ten Brinke, L. (2010). The truth about lies: What works in detecting high-stakes deception? *Legal and Criminological Psychology, 15*, 57-75. doi: 10.1348/135532509X433151.
- Stromwall, L. A., Hartwig, M., Granhag, P. A. (2006). To act truthfully: Nonverbal behaviour and strategies during a police interrogation. *Psychology, Crime & Law, 12*, 207-219. doi: 10.1080/10683160512331331328.
- Van der Sleen, J. (2009). A structured model for investigative interviewing of suspects. In Bull, R., Valentine, T., & Williamson, T. (Eds.), *Handbook of Psychology of Investigative Interviewing: Current Developments and Future Directions* (pp. 35-52). West Sussex, UK: John Wiley & Sons, Ltd.
- Vrij, A. (1995). Behavioral correlates of deception in a simulated police interview. *The Journal of Psychology: Interdisciplinary and Applied, 129*, 15-28.
- Vrij, A. (2008a). *Detecting lies and deceit: Pitfalls and opportunities* (2nd ed.). West Sussex, UK: John Wiley & Sons Ltd.
- Vrij, A. (2008b). Nonverbal dominance versus verbal accuracy in lie detection: A plea to change police practice. *Criminal Justice and Behavior, 35*, 1323-1336. doi: 10.1177/0093854808321530.
- Vrij, A., Granhag, P. A., & Porter, S. (2010). Pitfalls and opportunities in nonverbal and verbal lie detection. *Psychological Science in the Public Interest, 11*, 89-121. doi: 10.1177/1529100610390861.
- Vrij, A., Mann, S., Fisher, R., Leal, S., Milne, R., & Bull, R. (2008). Increasing cognitive load to facilitate lie detection: The benefit of recalling an event in reverse order. *Law and Human Behavior, 32*, 253-265. doi: 10.1007/s10979-007-9103-y.
- Weiss, B., & Feldman, R. S. (2006). Looking good and lying to do it: Deception as an impression management strategy in job interviews. *Journal of Applied Social Psychology, 36*, 1070-1086. doi: 10.1111/j.0021-9029.2006.00055.x.
- Zuckerman, M., DePaulo, B. M., & Rosenthal, R. (1981). Verbal and nonverbal communication of deception. In Berkowitz, L. (Ed.), *Advances in Experimental Social Psychology, 14* (pp. 1-59). London, UK: Academic Press.

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# Lessons for the Home Team from the Ferguson and Baltimore Civil Unrest Cases

by Cherielyn Leong

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## INTRODUCTION

Two civil unrest cases rocked the United States within the space of eight months in 2014 and 2015 when violent riots took place in Ferguson and Baltimore. The Ferguson unrest that broke out in August 2014 was particularly significant as it developed into a four month long protest movement and inspired other similar protest movements against police brutality across the country. These civil unrest cases provided opportunities for the Research and Statistics Division (RSD) to examine factors that lead to race-based civil disorders and to distil useful lessons on government and police responses and highlight the importance of building trust with the community, where failure could affect recovery from violent protests.

## A TALE OF TWO CITIES

Ferguson and Baltimore are located in different states and have different population sizes. Ferguson is a suburban residential area near St. Louis City, Missouri while Baltimore is a large metropolitan area in Maryland, close to Washington D.C. However, the two cities are similar in their socio-economic background. These similarities played crucial roles in bringing about the civil unrest.

A great disparity in socio-economic class status between the white and African-American communities in both locations accounted for the racial tinge in the civil unrest. The average household income level for African-Americans in Ferguson, for example, was significantly lower compared to white residents and to the national average, even though African-Americans made up 67% of the population. In 2012, for

example, Ferguson's median household income was \$36,121, which was lower when compared to Missouri's \$45,321 and the US national figure at \$51,324. The poverty of the African-American communities in both locations was compounded by changing economic needs, from labour-intensive manufacturing industries to knowledge-based white-collar industries in these two areas and by "white flight", where white residents moved out of a residential area as more African-Americans moved in from the inner city ghettos in St. Louis City and Baltimore City. The consequences of "white flight" were far-reaching as jobs, services and amenities in the neighbourhoods which would have benefitted the newly relocated African-American residents left with the exiting white populations. A vicious cycle of poverty, unemployment and rise in crime and social dysfunction continued to plague the African-American residents in these locations (Smith, 2014).

The racial segregation and socio-economic woes of the African-American communities affected their political representation in the two cities. Racial segregation excluded African-Americans from social and political life in Ferguson, resulting in very low representation of African-Americans in the police force and city government. For example, out of the 53 police officers employed in Ferguson Police Department when the civil unrest broke out in August 2014, only three were black officers (US Justice Department, 2015). On the other hand, though Baltimore had elected African-American leaders in key political positions like the Mayor, the State Attorney and the Baltimore Police chief during the unrest, complaints about neglect and ineffectiveness of Baltimore's black leadership were heard. These leaders were criticised for ignoring the plight of the lower income African-

Americans and avoiding the poor crime-ridden black neighbourhoods.

Through decades of segregation and marginalisation of the African-American communities, the relationships between these communities with the local police departments may be described as fraught with tension. The police departments in both cities had a reputation for using racial profiling methods and a history of targeting African-Americans for “stop-searches”. In some cases, the police were accused of employing excessively violent methods when subduing African-American suspects or residents of the poorer neighbourhoods who caught the attention of the police (Deets, 2015). Some of these incidents resulted in deaths and serious injuries, but the police officers involved in the violence were often not punished. The Baltimore Police Department allegedly gave “rough rides” to prisoners, which more often than not, resulted in prisoners being knocked about inside the police transport vehicles and suffering injuries (Graham, 2015). As a result, trust between the communities and the local police was severely deficient and incidents where African-Americans died or became gravely injured in encounters with the police became potentially explosive incidents.

## TRIGGER INCIDENTS THAT LED TO VIOLENT RIOTS

In both Ferguson and Baltimore, the civil unrest was triggered by the death of a young African-American man after an encounter with the police. The shooting of Michael Brown by a white police officer Darren Wilson from the Ferguson Police Department on 9 August 2014 during a street confrontation triggered off weeks of violent riots. Brown was shot in the middle of the street after Wilson stopped him for jay-walking. Wilson fired six shots at Brown after Brown allegedly rushed at him. As there was no video evidence to back up Wilson’s account, the case became mired in speculation. Emotions soon ran high and escalated quickly into violent standoffs

between the police and large numbers of people protesting police brutality and the silence over Brown’s death.

The Ferguson PD’s ineptitude in managing the shooting incident and the subsequent rioting made matters worse (Taintor, 2014). There were four mistakes made. First, the failure to communicate with Brown’s family members as to what happened to him led to wild rumours and speculations that Brown was a victim of police brutality. Second, Brown’s body was left uncovered on the street for four hours while police and forensics worked on the scene. This added to the emotional shock and anger of the African-American residents of Ferguson seeing one of their own lying dead and exposed on the street. Third, the police used excessive force, such as militarised equipment, smoke grenades, sound cannons etc, to dispel the protestors, which included women, elderly and children. Fourth, the Ferguson PD’s initial reluctance to share information on the shooting, including delays in explaining what happened and not releasing Darren Wilson’s identity added to the tension. These mistakes added to the perception that the police was trying to cover up the truth of the shooting. Violent clashes between the police and protestors dragged on for at least two weeks during which several clashes with armed police were reported. After the violent clashes died down, the subsequent peaceful protest movement that sprang up in Ferguson gained momentum as a civil rights and anti-racism movement. It inspired other peaceful protests across the US as

Americans of various races and religions participated in the call for an end to police brutality and racism against African-Americans.

Baltimore’s trigger incident involved the death of Freddie Gray, a 25-year-old black youth who died while in police custody.

Gray was arrested on 12 April 2015 for suspected drug dealing, and was reportedly beaten up by the police in full view of his neighbours in the crime-ridden neighbourhood of Sandtown-Winchester. He died of his injuries on 19 April 2015 and the circumstances surrounding his death attracted

“ Violent clashes between the police and protestors dragged on for at least two weeks during which several clashes with armed police were reported. ”

the attention of civil rights activists, who gathered to protest police racism and the treatment of Gray and black suspects held in custody. The protests were largely peaceful until 27 April 2015, the day of Gray's funeral which attracted a large number of mourners. The crowd became agitated when rumours circulated on social media of an impending clash between rival gangs and police at the funeral. The Baltimore police ramped up security and presence as a result, but this added to the tension and clashes soon broke out when some mourners threw rocks and bottles at the police.

### **SIMILAR CONTEXTUAL FACTORS, DIFFERENT OUTCOMES**

The Baltimore civil unrest officially ended on 29 April 2015, after two days of clashes with the police. This was a far cry from the four month long Ferguson civil unrest. Some reasons could account for this difference in outcomes.

#### [Actions by the government to mitigate tensions that worked](#)

The ability of the government to effectively mitigate tensions during a civil unrest lies in its ability to facilitate the speedy restoration of law and order. In Ferguson's case, what did not help was the two week delay by the Missouri Governor in calling in National Guard troops to help quell the riots. Apart from this, another delay, seen in the three month long review and deliberation of evidence by the St. Louis County grand jury to decide whether or not to indict Darren Wilson for his role in Brown's death contributed to prolonging the protest movement. The uncertainty surrounding the grand jury's verdict contributed to perpetuating the tensions in Ferguson.

The quick resolution of the Baltimore civil unrest makes a case for examining the actions taken by the local government that worked to mitigate tensions. Baltimore authorities took swift action to put an end to the unrest, having learnt from Ferguson's experiences. The Baltimore Mayor was

quick to declare a state of emergency, established a curfew and deployed more police resources to manage the protest crowds. National Guard troops were also swiftly deployed in Baltimore to add to the security presence. Baltimore's local community and religious leaders came forward to express support for the Mayor's measures to quell the riots and restore order. This was the result of engagement by the Baltimore authorities with the community leadership to manage the peaceful protest rallies over Gray's death before violence broke out. Church leaders also took the initiative to meet with local gangs to keep the peace and to discourage further violence.

Efforts by the government to restore order may also include making adjustments to procedures to show greater sensitivity to the racial concerns precipitating the unrest. Such adjustments were observed in Ferguson, where the local government took a series of steps to take the pressure off the beleaguered police department during and after the violent riots. Security control of Ferguson was handed over to Ron Johnson, a respected African-American captain of the Missouri State Highway Patrol who is also a Ferguson resident. He effectively reached out to the other residents to remain calm and not use violence to make their point. The Missouri Governor also diminished the prominence of the Ferguson PD in protest management, so as to minimise opportunities for further clashes.

“ The ability of the government to effectively mitigate tensions during a civil unrest lies in its ability to facilitate the speedy restoration of law and order. ”

Another measure that took into consideration the race-based concerns of the community was the formation of the multi-racial Ferguson Commission. The Ferguson Commission aimed to uncover the causes for the civil unrest and propose ways to address the problems of inequality and racial discrimination by collecting inputs and solutions from the community, ranging from religious leaders, local civil rights activists, youths, business operators, school representatives etc. These efforts were enhanced further by the launch of a federal investigation into structural racism and police discrimination in Ferguson by the US Department of Justice.

### Actions by the Police to mitigate tensions

The actions taken by the police departments in both cases had direct impact on the different outcomes. The Ferguson PD's use of excessive force against protestors and delay in the release of crucial information relating to Brown's death were textbook examples of what do not work in the mitigation of tensions. To make matters worse, the Ferguson police issued an apology for their heavy-handed response to the shooting case and in managing protestors only six weeks after the incident. This late apology was criticised as insincere by the Ferguson protestors.

On the other hand, the swift resolution of tensions in Baltimore came about because the city took swift action to charge the police officers involved in Freddie Gray's death. The protest movement in Baltimore tapered off after the six officers involved were suspended and charged for their roles in causing Gray's death. This was again notably different from Ferguson, where a grand jury took three months to decide after reviewing evidence to decide whether or not to indict Darren Wilson for his role in Brown's death. Notably, the Baltimore police had not used military grade equipment to disperse the crowds, having learnt from the Ferguson experience. Baltimore police also made use of social media channels like Twitter and Facebook to provide timely and useful information to the public, such as safe routes to take under the curfew and updates on the investigations into the six officers charged for Freddie Gray's death.

The police forces in Ferguson and Baltimore quickly realised they had to restore the public's trust in them following the breakdown of order in the civil unrest. This meant making some adjustments to the way the police handled protestors and interacted with the public in everyday policing. For example, after the violence died down in Ferguson, the US Department of Justice worked with the police department to send officers for protestor management training courses run by the Justice Department's Community Oriented Policing

Services Office (COPS). This programme is aimed at training police officers to be more aware of protestors' rights and the techniques to engage them to minimise confrontation. There were also discussions about issuing Body-Worn Cameras to patrol officers. These cameras are deemed to be useful in protecting both officers and the public as the recording help deter abuse of authority and can serve as evidence in the event of a confrontation between police and members of the public (Feldt, 2014). This initiative is still being explored by various police departments across the US.

### Community actions that helped restore calm

Apart from the actions taken by the police departments, the local mayors and state governors, and the federal government to restore order in the two cases of civil unrest, the resident communities in Ferguson and Baltimore also helped. While Ferguson's African-American residents generally supported the protest movement, they nevertheless stepped up to keep the protests peaceful and admonished rioters who used violence in their name. Many Ferguson residents, from various racial and socio-economic backgrounds also organised their own community clean-up after the rioting to help restore some order to their neighbourhoods. On the other hand, Baltimore's African-

American community, as well as other ethnic communities, were generally critical of the rioters and looting incidents that accompanied the violence. There were examples of parents openly dragging away and scolding their teenage children for participating in the rioting that circulated on social media. The Baltimore community's

reactions certainly played a part in discouraging more violence from erupting.

### **LESSON ON IMPORTANCE OF TRUST-BUILDING**

The lack of trust is a recurrent theme in these two cases. The lack of trust in the authorities due to perceptions of prolonged racial discrimination

“The police forces in Ferguson and Baltimore quickly realised they had to restore the public's trust in them following the breakdown of order in the civil unrest.”

and abuse of the African-American communities in the two cities created opportunities for explosive confrontations with the police. The lack of trust also affected how residents perceived efforts by the police and local government to mend relations. For example, the multi-racial Ferguson Commission was initially dismissed by the residents for being ineffectual in resolving the problems in their area because they felt that the racial discrimination was unlikely to go away. Many turned up at the Commission's first meeting to criticise the initiative, instead of giving inputs, revealing a lack of faith in the initiative's ability to make changes in Ferguson.

The lack of trust in the authorities, systemic in both Ferguson and Baltimore, could have been mitigated if the police departments had taken some actions, such as responding quickly to address public disquiet and agitation, especially in a situation where a death is associated with the police, calibrating responses to dispel protestors peacefully and using skills and even equipment, like the body-worn camera, to promote trust building between police and protestors. Such measures, as employed in Baltimore, helped to minimise the erosion of trust in the police and the ability of the authorities to restore order.

On the part of the local government, efforts to assure the public of actions being taken to "punish" the offending police officers can be helpful to regain trust. The Baltimore Mayor and State Attorney both gave regular public updates on the actions taken by the government to investigate Gray's death. This contributed to assuring the public that their grievances were being looked into. In addition, the launch of two federal level investigations into civil rights violations and racially discriminatory practices by the police and local authorities in Ferguson gave hope to the Ferguson protestors that their grievances were being taken seriously. The federal investigations and their findings were later well-received by the Ferguson community.

“When any interaction with the police or the local government tends to involve only administrative or legal exchanges, particularly in the payment of traffic fines or court summons for one particular ethnic group, distrust and resentment can develop as this reinforces a perception of discrimination against this ethnic group.”

Trust building between the government, police and the local multi-ethnic community has to be done regularly over time. The lack of engagement with the local community, particularly in a multi-ethnic area, can have dire consequences. Impressions of the government and police as racist or favouring a particular ethnic group often breeds distrust of the authorities. In addition, when any interaction with the police or the local government tends to involve only administrative or legal exchanges, particularly in the payment of traffic fines or court summons for one particular ethnic group, distrust and resentment can develop as this reinforces a perception of discrimination against this ethnic group. In Ferguson, this was particularly significant as the federal investigation into discriminatory policing practices revealed that African-Americans were twice as likely to be pulled over for traffic offences or be

arrested for minor offences that would result in fines. As a result of this often tense relationship, Ferguson's black residents connected more with their own religious leaders and viewed the local police and authorities with suspicion, fear and anger. In Baltimore, the local authorities benefitted from the earlier contact and common goal they established with the city's religious leaders to help reduce tensions at the protest rallies before the riot broke out. To effectively manage a race-based civil unrest, it is therefore worthwhile to develop community engagement mechanisms to develop better relationships between the government, police and the community.

## MOVING ON FROM CIVIL UNREST

The two cases of civil unrest provided much debate in the United States, in particular the roles of police, policy makers and community engagement practitioners in managing race relations. The Ferguson unrest ushered in a new civil rights movement against police discrimination against African-Americans in the US and put pressure on the government and police to change their methods of dealing with



protestors. While incidents of police shootings of African-Americans still occur, more public scrutiny of the outcomes of these cases have surfaced, in the form of protests, public debates on police accountability and social media campaigns to raise awareness of the cases. Trust building and community engagement for government and police departments thus have become more crucial than ever before to prevent outbreaks of violence, restore calm quickly when riots break out and reconcile police-public relations after the violence dissipates.

## REFERENCES

- The editorial board (2014, 12 Aug). The Death of Michael Brown. *The New York Times*. Retrieved from [www.nytimes.com](http://www.nytimes.com)
- Coleman & Toppo (2014, 25 Sep). Ferguson Police Chief issues apology to Brown family. *USA Today*. Retrieved from [www.usatoday.com](http://www.usatoday.com)
- Brown (2014, 26 Sep). Ferguson police chief apologizes to Brown's parents. *The Washington Post*. Retrieved from [www.washingtonpost.com](http://www.washingtonpost.com)
- Bosman, Julie (2014, 10 Sep). Outrage and Calls for Change Follow Ferguson Officials into Council Meeting. *The New York Times*. Retrieved from [www.nytimes.com](http://www.nytimes.com)
- Kesling, Ben (2014, 21 Oct). Missouri Governor Announces Creation of 'Ferguson Commission'. *The Wall Street Journal*. [www.wsj.com](http://www.wsj.com)
- Robinson, Janessa (2014, 17 Nov). Ferguson Response Network: Protestors Launch Nationwide Engagement Campaign. *The Huffington Post*. Retrieved from [www.huffingtonpost.com](http://www.huffingtonpost.com)
- Barrett, Devlin (2014, 4 Sep). Justice Department to Investigate Ferguson Police Force. *The Wall Street Journal*. Retrieved from [www.wsj.com](http://www.wsj.com)
- Smith, Jeff (2014, 17 Aug). In Ferguson, Black Town, White Power. *The New York Times*. Retrieved from [www.nytimes.com](http://www.nytimes.com)
- Feldt, Brian (2014, 17 Sep). Feds emphasize caution with use of police body cameras. *St. Louis Business Journal*. Retrieved from [www.bizjournals.com/stlouis](http://www.bizjournals.com/stlouis)
- Deets, Stephen (2015, 30 Apr). Baltimore is not Ferguson. *The Washington Post*. Retrieved from <https://www.washingtonpost.com>
- Lowery & Wax-Thibodeaux (2014, 18 Nov). Missouri Governor swears in Ferguson panel ahead of grand jury decision in shooting. *The Washington Post*. Retrieved from [www.washingtonpost.com](http://www.washingtonpost.com)
- US Justice Department. (2015, 4 Mar). Investigation of the Ferguson Police Department, US Department of Justice. Retrieved from [www.justice.gov](http://www.justice.gov)
- Taintor, David. (2014, 16 Aug). How Ferguson police made the situation worse. *MSNBC Society Page*. Retrieved from [www.msnbc.com](http://www.msnbc.com)
- Stolberg, Sheryl (2015, 28 Apr). Crowds Scatter as Baltimore Curfew Takes Hold. *The New York Times*. Retrieved from [www.nytimes.com](http://www.nytimes.com)
- Badger, Emily (2015, 29 Apr). The long, painful and repetitive history of how Baltimore became Baltimore. *The Washington Post*. Retrieved from [www.washingtonpost.com](http://www.washingtonpost.com)
- McIntyre, Douglas A. (2015, 28 Apr). Baltimore Demographics: The City By the Numbers. *24/7 Wall Street Newsletter Blog*. Retrieved from <http://247wallst.com/economy>
- Transcript of broadcast between Renee Montagne and Mark Puentes from the Baltimore Sun. (2015, 30 Apr). 'Baltimore Sun' Probe Exposes 'Disturbing Pattern' of Police Brutality. *National Public Radio (NPR)*. Retrieved from [www.npr.org](http://www.npr.org)
- Author unknown (2015, 2 May). Celebrations in Baltimore as six officers are charged with the death of African-American Freddie Gray. *Euronews*. Retrieved from [www.euronews.com](http://www.euronews.com)
- Bouie, Jamelle (2015, 29 Apr). The Deep, Troubling Roots of Baltimore's Decline. *Slate.com*. Retrieved from [www.slate.com](http://www.slate.com)
- Graham, A. (2015, 27 Apr). Rough Rides and the challenges of improving police culture. *The Atlantic*. Retrieved from [www.theatlantic.com](http://www.theatlantic.com)

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# Dilemmas in Designing Training Programmes for Police Officers

by Loy Chye Meng  
Singapore Police Force, Training Command

## INTRODUCTION

We often hear seasoned police officers telling young rookies to forget what they learned in the Academy as the 'real' learning takes place after graduation. While there is some truth in that statement, formal training does prepare an officer for his duty at the frontline, in a significant way. This note seeks to shed some light on the key considerations taken when designing a training programme for law enforcement officers.

Designing a training programme for police officers has never been easy. Whether it takes the form of a formal structured training programme in the Academy, or an 'apprenticeship' that is, on-the-job training, trainers often face several dilemmas. For example, learning designers often ponder over whether to introduce stress beyond the normal level during training or to allow officers to have 'time-out' sessions so that they can reflect and probe deeper into issues, which they would not normally do under the pressure of time, or a combination of these two approaches.

Compounding the issue is that many police forces around the world were part of the military during their formative years. As a result of the military influence, a doctrinal approach has featured in the design of police training.

A police officer's job in terms of decision-making can be broadly grouped into two categories: one, little or no discretion, or two, with discretion. A non-exhaustive list of jobs with little or no discretion include security duties at entry points, storming drills by SWAT teams and ensuring training safety at shooting ranges. Jobs with more discretion are typically those relating to investigations and frontline officers handling

minor offences, such as neighbour disputes, and acts of mischief. Discretion is often necessary because the incidents confronting police professionals are never exactly the same, and may not be what they appear to be.

## THE IMPORTANCE OF DISCRETION

When a flower pot is reported missing from the common corridor of a public housing apartment block, an officer would probably classify the case as an act of mischief, as the flower pot is of little value. However if the same flower pot is reported missing from secured premises, it cannot be treated merely as an act of mischief but as a major security breach that requires a thorough investigation.

Similarly, many people are reported missing each day, some of whom have voluntarily left their homes. The key concern of the police when handling a missing person report is whether that person is a victim of crime. Thus while there are standard investigation procedures in place, a minor or an elderly missing person would certainly warrant greater attention by the investigators.

## Structured vs On-The Job-Training

The first dilemma to resolve is structured versus on-the-job training (OJT). We often hear that the best way to train an officer is to send him to the deep end of pool and let him struggle, or assign a seasoned officer to be his mentor - such as a Field Training Officer.

However, OJT arrangements come with their own risks because they assume that the 'right' experience would be imparted to the rookie. We all know that sometimes a seasoned officer might be doing all the wrong things and he would put it down to 'experience'. Sometimes it is not

the case of imparting the wrong experience – the mentor might have perfected his skills and skips certain steps because he is able to read the situation ahead of others. A rookie observing a mentor might wrongly conclude that certain prescribed steps are redundant. For example, an experienced investigator might decide not to subject a suspect to a polygraph test because he has other means to assess the accused.

In general, OJT is useful when familiarity with the terrain, particularly social terrain, is critical for effective execution of the task. OJT also has greater value in equipping officers with interpersonal skills as it is generally difficult to simulate ‘difficult people’ in a training environment.

### Drill-driven vs Scenario Based Training

The next consideration is whether the training should be drill-driven or scenario-based. This again depends on the tasks to be executed. Generally, tasks that require instinctive responses, for example storming a barricaded house, are best taught with a drill-driven methodology.

In some other instances, tasks assigned have to be strictly complied with as part of robust ‘checks and balances’. These include certain training safety regulations at the firing range, as well as certain response protocols for security duties. These procedures are usually put in to mitigate specific risks, and are susceptible to complacency or the ‘crying wolf’ syndrome, where a series of false alarms could have unintended consequences and perversely condition the officer to delay responding or not to respond at all.

### **THE SHORTFALLS OF DRILL-DRIVEN TRAINING**

When a false alarm goes off, the officer manning the post will proceed to investigate and confirm the false alarm. He would probably do it for the next few false alarms. After a while, especially when false alarms are frequent occurrences, he might choose not to respond in the belief that it is yet another false alarm. However, the subsequent false alarm could well turn out to be an actual intrusion.

### Inducement of Stress

Another dilemma is whether to induce stress during training or to allow trainees time-out to reflect and discuss the considerations and other less observable factors which they would not have noticed under the pressure of time. While it is important to induce stress during training exercises aimed at preparing for contingencies, catastrophes and other high-stress events, adding stress to a training programme beyond the norms should be clearly explained and carried out with clear intent. Inducing stress, for example, depriving trainees of sleep or deploying them for extended hours to wear them out, should not be done for the sake of doing it but with clear learning outcomes. Indeed, if the intent is to nudge trainees to reflect and learn to identify and analyse the less discernible aspects, having time-outs during training sessions could be more effective than rushing through the training.

### **LEARNING MENTAL FRAMES**

Each learning design option brings its own dilemmas. There are, however, techniques or mental frames that can be used to reconcile the dilemmas. These include:

- **Sensitivity Analysis**

To train officers to think on their feet rather than complying with standard operating procedures blindly, one technique is ‘sensitivity analysis’, where trainees are trained to think through how they should vary their responses when one or more of the prevailing conditions change.

### **VARYING RESPONSES**

When a passport is reported missing, the standard procedure is to lodge a ‘lost and found’ report, if there is no indication of theft. However, if 20 passports are reported missing, it warrants some form of investigation even if there is no indication of theft, as such incidents have the potential to develop into a serious security incident. Similarly, when the theft of a truck load of consumer electronics is reported, normal investigations would suffice but the theft of a truck load of toluene, a precursor for explosives, must surely trigger a more robust and thorough response.

### • Principles in Addition to Procedures

Training officers to understand both principles and procedures is also an effective way to prepare officers to deal with a diverse range of situations. A good operational guide states the key principles, the higher level considerations, and defines the desirable outcomes, in addition to specifying the procedures to be followed. This is important, for when the situation turns ambiguous and does not appear to fit into any of the options mentioned, the officer who has a clear understanding of the higher level consideration will be able to improvise and take the most appropriate action to achieve the desired outcome.

### STATING THE KEY PRINCIPLE

The symptoms of a person suffering from an epilepsy attack are very similar to a person who is drunk and incapable. However it is crucial not to treat an epileptic person as a drunkard. Thus the principle of treating all persons having such symptoms as a sick person from the outset is more important than specifying the procedures to deal with a drunk and incapable person.

### • Appreciation of Situation (AOS)

The AOS is a thought process which helps officers identify the critical factors to be taken into consideration before deciding on the next course of action. Today, AOS is widely taught and applied in law enforcement agencies. Typically, factors that are considered critical include terrain and the prevailing threat assessment, among others. A very succinct and simplified mental frame that is very useful for frontline law enforcement officers with little time to do a detailed AOS is based on just two factors: the principle of legality (Robinson, 2005) and the principle of proportionality (Thomas, 2000). That is, whatever action taken must be within the confines of the law and proportionate to the offence committed.

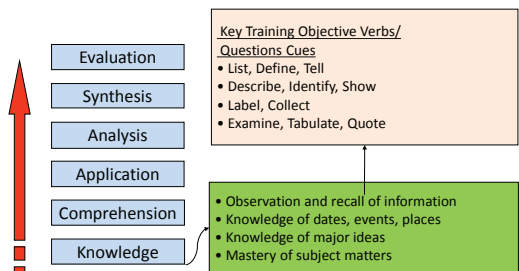
### APPRECIATION OF SITUATION

When a traffic police officer spots a van parking illegally in a quiet back lane at 2 am in the morning, he would, at most, issue a ticket and might even take no action as the van is unlikely to cause any obstruction. If, however, the van is parked along the back lane next to a crowded pub, then he should assess if it poses a security threat which warrants further action.

### • Bloom Taxonomy and The Learning Outcome

To a large extent, the methods to be employed depend on the desired outcomes of the training programme. A good guide to determining the learning outcomes is the Bloom Taxonomy (Bloom, 1956):

#### The Bloom Taxonomy



Using firearms training as an example, if the learning outcome is the correct technique in handling firearms to achieve a certain level of accuracy, then 'dry' practices and 'live shoots' at shooting ranges would probably suffice. If, however, the learning outcomes are making the right decisions and exhibiting competency in using firearms in various situations, then a thorough understanding of the firearms doctrine and 'live' shoots in various scenarios would be necessary.

## CONCLUSION

These learning design options and mental frames will hopefully provide some insight into the design of training programmes. An effective training programme does impact the individual in a significant way, but ultimately, the attitude and aptitude of the individual, as well as the working environment of his work unit will have an even greater influence on the transfer and internalisation of professional skills and knowledge.

## REFERENCES

Bloom, B.S., Engelhart, M.D., Furst, E.J., Hill, W.H., & Krathwohl, D.R. (Eds.) (1956). *Taxonomy of Educational Objectives: The Classification of Educational Goals. Handbook 1; Cognitive Domain*. New York: David McKay Company, Inc.

Robinson, Paul H., 'Fair Notice and Fair Adjudication: Two Kinds of Legality' (2005). Faculty Scholarship. Paper 601. [http://scholarship.law.upenn.edu/faculty\\_scholarship/601](http://scholarship.law.upenn.edu/faculty_scholarship/601)

Robert, Thomas., (2000). *Legitimate Expectations and Proportionality in Administrative Law*. Oregon: Hart Publishing.

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SAC Loy's earlier postings included appointments as Deputy Director of the Operations Department, SPF, and Commander of Geylang Police Division. He holds a Bachelor's degree in Business Administration, from the National University of Singapore and a Masters degree in Strategic Studies from the Nanyang Technological University.

# Smart Regulation and the Adaptive Leader in the Public Service

by Richard Magnus  
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The Home Team is a very critical regulator both in terms of safety and security. And as a regulator, the Home Team touches almost every facet of life in Singapore. This includes all the various agencies. The Singapore Civil Defence Force (SCDF) regulates fire safety codes, which affects every single home and the Central Narcotics Bureau (CNB) regulates controlled drugs. The Singapore Police Force (SPF) has various licensing regimes, which I remember, as I was Chairman of the Vehicle Licensing Board for almost 15 years and Chairman of the Hotel Licensing Board for a good seven to eight years. The Immigration and Checkpoints Authority (ICA) regulates human flows through our borders while Customs controls the goods.

“Where regulation is poorly designed or overly complicated, it can impose excessive cost and inhibit productivity. The job of the government and the job of the Home Team, is to get the balance right, providing proper protection and making sure that the impact on those being regulated is proportionate.”

can be by way of issuing permits, or controlling orders. Where regulation is poorly designed or overly complicated, it can impose excessive cost and inhibit productivity.

The job of the government and the job of the Home Team, is to get the balance right, providing proper protection and making sure that the impact on those being regulated is proportionate. It is a given in Singapore that regulations are not only necessary, but must be fair, effective, affordable and

enjoy a broad degree of public confidence. These are the features of regulations in Singapore.

## THE PURPOSE OF REGULATION

It is important to understand what the purpose of regulation is, and to recognise what should be good, sound regulation.

Let me start with some basic definitions. Regulation may be widely defined as any government measure or intervention that seeks to change the behaviour of individuals or groups. That includes our enabling statutory provisions, the subsidiary legislation and the various codes that we make under those individual powers. Regulations, as a whole, give people rights, as well as restrict their behaviours. So it is both prescriptive and accords privileges and rights. The way that the rights are to be exercised varies in different domain areas. It can be by way of licensing, for example, or it

## SMART REGULATION

In 1997, the United Kingdom (UK) Better Regulation Task Force suggested five principles that should be part of a policy maker's checklist in terms of regulations. The first, proportionality. Second, accountability. Third, consistency. Fourth, transparency, and the fifth, targeting. The task force suggested that these principles should be used when considering new proposals, evaluating existing regulations and to avoid unnecessary bureaucratic burdens being imposed on the public sector. In Singapore, these principles are only a starting point; they are not the end point. They are embedded within our regulatory ethos, and they form the minimum ethical principles in terms of our regulations. In the UK, the position is reversed - these principles are the end point or the outcome for every single regulation.

It is essential for us to go beyond these five principles. We need to have optimum regulation or a differentiated first-rate regulatory regime in Singapore. That is the outcome that we want to achieve. This is, of course, within the context of Singapore being a small nation and the need for us to get everything right the first time. Regulation must be smart; and must be optimal, not over regulation or under regulation. Sub-optimal regulations refer to regulations that are not effective in delivering the purported policy goals, or are deficient, or are not performing at the least cost, or will not be able to perform well in terms of either criteria, such as equity and political acceptability.

“Smart regulation, in contrast, provides a sufficient level of protection to bolster confidence in our society, without needlessly burdening the regulated entities.”

We also need to recognise that there is an additional element, which was not articulated by the UK task force - the element of equity or political acceptability. This is a norm that we need to have in our regulations, so that they are not just conventional forms of direct command and control, but also include flexible, imaginative, innovative forms of social control, which seek to harness not only government-society but also business and third parties in a larger base of actors in Singapore. As with self-regulation and code regulation, we utilise both commercial interests and other advisory public or civic sector bodies. There is thus a larger stakeholdership when we talk about regulation within Singapore. This implicitly means that we have to go beyond our domain areas, and engage stakeholders that are connected directly or indirectly with the areas under regulation.

Smart regulation is sound regulation; the opposite of sound regulation or smart regulation is, of course, dumb regulation. Dumb regulation manifests itself in a variety of ways. It puts countless burdens on businesses, and fails to reflect changing situations, changing geo-critical situations, changing political situations and expectations, as well as changing technology. Overly protective orders, for example, leave

investors and businesses as sheep to be sheared for cost. Smart regulation, in contrast, provides a sufficient level of protection to bolster confidence in our society, without needlessly burdening the regulated entities. Smart regulations are context specific. SCDF, Customs, CNB, etc., which I mentioned, are context specific. In extending the context specific nature of the domain area, regulators can learn wider lessons - that even though we have regulations in certain specific domain areas, we need to begin to pick up ideas from other domain areas and extrapolate from them to the areas with which we are concerned. There are challenges to this. It will be futile to attempt to construct a single optimal regulatory solution that will be applicable to a wide variety of circumstances. We know this intuitively, and we need an awareness of the importance of cross-understanding the other regulatory ethos and principles throughout the Home Team.

Policy makers also need to assess their decisions against a set of desired criteria, which form the basis for reaching preferred policy outcomes. As regulators, we need to be able to have a set of desired principles within our own framework. Adherence to these principles is core to policy design and this can include four or five areas.

## PRINCIPLES FOR DESIGNING SMART REGULATION

The first principle is the use of complementary but productive instruments, which are mixed with single instrument approaches, including a whole-of-government (WOG) approach. There is a caveat - we assume that not all instruments should be used, nor that they form the minimum necessary to achieve the desired result. In other words, we incorporate instruments and institutional combinations but do not adopt a kitchen-sink approach or a regulatory overload. The challenge is to ensure that the mix is not counter-productive. The first design principle is thus the use of complementary, but productive



instruments, and within the context of a WOG approach.

The second principle is parsimony. The question asked in parsimony is why less interventionist measures should be preferred, and how to achieve such outcomes. This is about the balance between prescription and coercion. We need to begin to work out ranking instrument categories according to the level of intervention that is required and the balance of the assessment of the respective contribution of the two components or prescription as well as coercion. In other words, when do you prescribe, when do you coerce, and at what levels do you prescribe, at what levels do you coerce. Efficiency-wise, highly coercive instruments usually require substantial administrative resources for monitoring and policing, without which they are likely to be ineffective. So the more that we use coercive tools, the more resources we need to put in place. Highly prescriptive instruments or regulations lack flexibility and will not facilitate least cost solutions. They will also result in the unnecessary deployment of resources to policing. There are those who will be quite willing to comply voluntarily under less interventionist options. You need to know who your domain actors are in the area that you are concerned with. Good performance may be inhibited from going beyond compliance with such regulations.

In the Casino Regulatory Authority (CRA), which I chaired for seven years from its establishment in 2008 to 2015, we had to go beyond the law, into the spirit of the law, to sort out full compliance and voluntary compliance requirements, and what was counterproductive to a prescriptive regime. We had to balance that appropriately. Not surprisingly, high intervention also tends to score very badly in terms of political acceptability. This is particularly the case in sectors where the history and culture of independence form a strong resentment of government regulatory intervention or red tape. And therefore, in the last few years, we have had the Singapore Smart Regulation Committee, which evolved from the roots of the Review Committee.

We start with the assumption that what actually works is the least interventionist policy measure. The Head of the Singapore Civil Service, Peter Ong, speaking in his capacity as Chairman of the Pro Enterprise Panel, said:

*Rules are needed to run the country. Making sure that they do not hinder businesses unnecessarily must be an on-going effort. To this end, public agencies proactively review and update their rules. But their efforts can be boosted by ideas from businesses, which are often best placed, at the receiving end, to tell us how government rules can be formulated and implemented better.*

The third principle is the value of escalating response up an instrument, utilising not only government but also business and civic sectors. This also means to increase dependability of outcomes through instrument sequencing and to provide early warning of instrument failure through the use of triggers. There are a few ideas here. The first is that within a smart regulation, there is an escalating response. We normally think of this in terms of sanctions. First breach, so much fine, second breach, higher fine. Third breach, even higher fine. So there is an escalating response. The first time, I'm prepared to forgive you. Second time, I'm prepared to give you a letter of warning. Third time, I think something is afoot, if not, you are smuggling goods into Singapore. There is an escalating response that we need to have within a smart regulation. You are only able to have an escalating response if you are able to have early warning signs of instrument failure through the use of triggers. You have to be able to know when this regulation that you want to put into place will fail. We need to anticipate failures within the regulation and we need to have triggers in order to be able to monitor these failures.

An instrument may be effective in influencing the behaviour of some but not others. A particular instrument which prior to its introduction seemed likely to be viable in its entirety may, in the light of practical experience, prove not

to be so, suggesting the need for instrument sequencing to increase dependability. The Casino Regulatory Authority Act is an example. Within two years of operation, the act needed to be amended in order to provide for instrument sequencing. In other words, when the regulation is promulgated, we need to keep an eye out for whether we will have to sequence the instrument or the regulation by way of amendment or by way of change of practice. We need to begin to have that within the idea of smart regulation.

“ We need to anticipate failures within the regulation and we need to have triggers in order to be able to monitor these failures. ”

The fourth principle is empowering third parties - commercial third parties, non-commercial third parties - and encouraging a greater range of actors in a domain area, whether they are banks, insurers, or consumers, or shipping bodies, pharmaceutical companies, or manufacturer of Automatic External Defibrillators (AEDs) or fire extinguishers. You need to be able to get them on board so that they become surrogate regulators for us. We would therefore be able to achieve not only better outcomes and less cost, but also free up scarce regulatory resources which can be redeployed to circumstances where no alternatives to direct intervention are available. So we need to begin thinking in terms of having them as de facto surrogate regulators; they regulate on your behalf, so to speak, in the various district areas that you want them to do so. This is part of our regulatory toolbox and we need to begin to recognise this availability that is open to us, especially in Singapore. We need to also be familiar with the supply chain in the domain area that we are involved in, whether it is in the SCDF, CNB, ICA or CRA. How does the system work? How does the process work? In the casino industry, what are the various chain areas? What levels of intervention, what areas of smart regulation, who can be made surrogate regulators within those areas? We need to force out outdated notions of government as an omnipotent source of regulatory authority. In this way, the government, which is the regulator, acts principally as a catalyst or facilitator.

Number five is maximising opportunities for win-win outcomes. By expanding the boundaries within reach, such opportunities are available and encourages businesses to go beyond compliance with existing legal instruments. Businesses want to do this for their own commercial interests or reputation and to enhance their market and consumers' affinity. We need to be aware that good businesses themselves also have a self-interest in wanting to self-regulate. We need to recognise this so that our regulation goes beyond compliance to a win-win outcome. But a crucial

question is now this: how, in what circumstances, and in what combinations, can the main classes of policy instruments and actors be used to achieve maximum policy mixers - smart regulation? Do they work? What is the impact on the domain areas and on Singapore? This is the game changer in smart regulation.

The question as I have phrased it seems to be quite a daunting question, a very difficult question to answer. And within the next 15 years of governance, this is the question that we need to settle because of the various changing situations. Which brings me to the matter of leadership as a smart regulator, and then one of adaptive leadership and why adaptive leadership is important for being a smart regulator.

## SMART AND ADAPTIVE LEADERSHIP

Leadership is not the same as authority, which we have as a regulator. If we have the capacity as a regulator to solve problems within our know-how, which we call technical problems, then we are only exercising authority, we are not exercising leadership. It is when we have to resolve problems beyond our capacity, which are adaptive challenges, that we are exercising leadership. Leadership is a sine qua non in smart regulation, and adaptive leadership is a sine qua non in smart regulation. Technical leadership is not. The dangers of exercising leadership derive from the nature of the problems from

which leadership is necessary. Adaptive change stimulates resistance, because it challenges the habits of the persons involved who are affected by the regulation. It challenges their values, their practices, their commercial practices and their belief systems. And since the resistance is designed to get you to back away from making the changes — that is the purpose of the resistance — we need to recognise the various forms in which the resistance is being applied to us as a smart regulator. An adaptive leader needs to be aware of this. We may not see the threat until it is too late. In such adaptive changes, leadership needs to have a stomach for failures and course correction. That's adaptive leadership, not authority. Recognising the dangers then becomes of paramount importance to us, as an adaptive leader, in order for us to be a smart regulator.

Here are some practical ideas for adaptive leadership. You know the makeup of a military officer or of a police officer – he or she knows the importance of maintaining the capacity for reflection even in times of crises, even in times of war. You know that intuitively as a police officer. Great athletes do so; great athletes can at once play a game and observe it as a whole, being as it were, in and out of the game. They sort of visualise, they imagine the game. How they run 100m, how they run 4x100, how they run the marathon - they play it out within their own minds, the in and out of the game. The Jesuits have a very interesting expression; they call it contemplation in action. Harvard Professor Ronald Heifetz calls this skill, and I do this often as well, getting off the dance floor and going out into the balcony.

Getting off the dance floor and going out into the balcony. This is an image that captures the mental capacity of stepping back in the midst of action and asking, "What's really going on here?" It is a very simple truism, but it is something that we need to begin to develop. We all get swept into the action, particularly when it becomes intense or personal, and we need to

“One of our greatest mistakes is when we regard an adaptive challenge as a technical challenge, and therefore we employ the same toolbox in order to deal with a problem.”

take this important pause. Self-reflection does not come naturally; the herd instinct is strong, especially in the Home Team, when you need to deal with crises. Achieving a balcony perspective means taking yourself out of the dance, in your own mind, if only for a moment, so that you get a clear view of the reality and some perspective of the bigger picture. Distance yourself from the fray, otherwise you may misperceive the situation and make a wrong diagnosis, leading you to misguided positions about whether and how to intervene. The process is not a one-moment process; the process is iterative, not static. In other words, in a crisis, you go up, look at the situation, and you come down from it, and you go up again and look at the situation. Moving back and forth between the dance floor and the balcony and then returning to action.

There are four diagnostic tools in this particular exercise of leadership. Firstly, we need to begin to distinguish between the technical and the adaptive challenges. I think one of our greatest mistakes is when we regard an adaptive challenge as a technical challenge, and therefore we employ the same toolbox in order to deal with a problem. This is the first awareness; that the problem is bigger than our capacity to be able to deal with it.

Secondly, find out where people are at. Listen to the song beneath the words. So when instructions are given to us, and when we hear comments from others, we need to understand what it is they are really saying. What is it that they want to achieve without telling you what they really want to achieve?

Thirdly, read the behaviour of authority figures for clues. I know we are all civil servants and are supposed to be apolitical. But it is important for us to think politically. I'm not saying that you should be thinking pro-PAP or pro-Workers Party, I'm not saying that at all. I'm saying that the lone warrior mode of leadership is a sure way to commit suicide, so forget about being a hero.

Our efforts to gain trust must extend beyond fault lines, and beyond opposition, to those folks who are uncommitted within our organisation when we are faced with adaptive challenges in order for us to be a smart regulator. There will be people within organisations who will be uncommitted, but you need to bring them on board. The management analysis is that 15% of persons will be committed to your cause and the balance of 85% will sit on the fence. But you need to bring them back to your cause. They are not committed, but you need to realise that nobody is smart enough or fast enough to engage alone with the complexity of an organisation or community when they are facing and reacting to adaptive pressures.

Fourthly, no one learns only by staring in the mirror. We all learn, and are sometimes transformed by encountering differences that challenge our own experiences and assumptions. Adaptive work requires engagement with something that lies beyond our own values and boundaries. Being an adaptive leader, in order to achieve smart regulation, we need to orchestrate the change. It is easier to do this when you are in an authority role.

There are four thoughts about orchestrating change. Number 1, you need to create a holding environment for the worker while you are changing your regulation. Number 2, you need to control the temperature, especially when your bosses want you to arrive at a certain deadline. You need to have a holding position, and you need to set the pace. Number 3, you need to show them the future. You need to show them that this conclusion that you are going to arrive at, is much better than your status quo.

Number 5, you need to give the work back. What does that mean? We gain credibility and authority by demonstrating our capacity to take other people's problems off their shoulders and give them solutions. I think we are quite good at that. We are good at that when it is a technical problem and we can solve the problem. All this is a virtue until we find ourselves facing adaptive

pressures for which we cannot deliver solutions. Then we need to place the work where it belongs, and that includes each one of us too. We need to recognise that the actors and the other persons involved in this domain area needs to be transformed and changed to also take up the responsibility. You need to give the work back to those who are involved in these particular areas. Then you need to hold steady.

The British have an expression: "Keep calm and carry on". Learn to take the heat in a way that does not undermine your initiative. It is one of the toughest tasks of leadership. It is a big challenge. How do you cope with failure? I think we need to hold steady, we need to learn to take the heat in a way that does not undermine us. There will be disequilibrium, but by taking the heat we can maintain a productive level of disequilibrium. Or creative tension, as people bear the weight of responsibility for working out their conflicts. We need to stay in there, and be part of the change. By holding steady, you also give yourself time to let issues ripen, or conversely, to construct a strategy to ripen an issue for which there is not yet any generalised urgency. That will give us time to find out where people are, so that we can refocus attention on the key issues. Holding steady is not only a matter of courage, but it also involves skill. These are some of the main features of adaptive leadership.

I have given you a quick run-in into what is required in terms of looking at smart regulation, what it is you want to achieve, what the desired framework is and how you achieve it through adaptive leadership. If all these things don't work, there is only one other solution. Pray.

*This article is adapted from a lecture given by Richard Magnus to leaders of the Home Team at the Senior Police Officers Mess (SPOM) on 10 July 2015.*

## BIBLIOGRAPHY

Better Regulation Task Force (2003). *Principles of Good Regulation*. Available at <http://webarchive.nationalarchives.gov.uk/20100407162704/http://archive.cabinetoffice.gov.uk/brc/upload/assets/www.brc.gov.uk/principlesleaflet.pdf>

Chan Lai Fung (2006, April), Smart Regulation for Singapore: An Interview with Chan Lai Fung. *Ethos*. Available at <https://www.cscollge.gov.sg/knowledge/ethos/ethos%20april%202006/Pages/Smart%20Regulation%20for%20Singapore.aspx>

PEP bulletin issue 11 (May - July 2014). Available at [https://www.mti.gov.sg/ProEnterprisePanel/Documents/PEP%20eBulletin/The%20Pro-Enterprise%20Panel%20\(PEP\)%20Bulletin%20-%20Issue%2011.pdf](https://www.mti.gov.sg/ProEnterprisePanel/Documents/PEP%20eBulletin/The%20Pro-Enterprise%20Panel%20(PEP)%20Bulletin%20-%20Issue%2011.pdf)

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# The Prevention Of Radicalisation To Violent Extremism: The Police Role

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## RESEARCH ON RADICALISATION

The amount of writing on radicalisation is enormous and therefore difficult to summarise. To understand all that has been written requires a multi-disciplinary background. Since I am a political scientist and student of the police, I won't pretend to be able to evaluate all of it. I can, however, offer some general conclusions from the research drawing on studies by governments, police agencies, academic scholars, and independent think-tanks.

The basic finding of contemporary research is that there is no single solution to radicalisation - no "silver bullet". Analysis must account for different "levels" of analysis, meaning different sorts of causal factors, and different sorts of change-agents. I will illustrate this complexity from studies by the European Union, which are representative of many sources (European Union, 2005, 2008).

As summarised by the European Union, the prevention of radicalisation must take into account factors at different levels of analysis:

- (1) External level
  - Political
  - Economic
  - Cultural
  - Recruitment
  - Trigger Events
- (2) Social level
  - Social identification
  - Network dynamics
  - Relative deprivation
  - Recruitment
  - Trigger Events

- (3) Individual level
  - Psychological characteristics
  - Personal experiences
  - Rationality
  - Recruitment
  - Trigger Events

Trigger events are dramatic, publicly reported actions that make radicalisation attractive to people already so inclined.

After reviewing studies discussing each level, the EU study concludes:

*... the main premise is that radicals are made, not born. They are not insane psychopaths suffering from mental illnesses (Post, 1998; Reich, 1998; Silke, 1998; Crenshaw, 2000). Additionally, radicalisation is prominently an individual process, that is, the result of a complex interaction between causal factors; hence, no single explanation of radicalisation exists.*

Because different kinds of factors are involved in radicalisation, different strategies are required to reduce it, each of which may require different agencies and different types of people. Three strategies have been suggested by the European Union ('The European Union Strategy for Countering Radicalisation and Recruitment to Terrorism', 2005):

- (1) 'Disrupt the activities of the networks and individuals who draw people into terrorism';
- (2) Ensure that 'voices of mainstream opinion prevail over those of extremism'; and

“ Because different kinds of factors are involved in radicalisation, different strategies are required to reduce it, each of which may require different agencies and different types of people. ”

- (3) 'Promote more vigorously security, justice, democracy and opportunity for all'.

Note that only the first of these strategies falls within the purview of the police. Successful prevention needs to involve a range of strategies carried out by different kinds of people and agencies (EU, 2005):

- People intimately involved with potential radicals;
- Communities in which potential radicals live;
- Networks transcending communities, importantly, the Internet; and
- Government agencies.

Given the mind-boggling complexity of the analysis of radicalisation and the variety of preventive strategies to consider, I offer some advice about developing solutions to radicalisation. I call them the 'Three Beware's'.

- (1) Beware of subject-identified experts: they'll recommend what they know. Psychologists will offer solutions about the formation of individual personalities; sociologists about group dynamics in communities; political scientists about government organisation; economists about 'root causes'; and so forth. In other words, beware of 'intellectual special interests'.
- (2) Beware of a priori theorising. Analysts often present frameworks for future study rather than empirical research on the pathways to radicalisation in the lives of actual terrorists. Many studies, in my view, focus on where the causes of radicalisation are rather than hands-on, factual study. There is too much talk about possible 'pathways', 'levels', and 'indicators' rather than tested insights.
- (3) Beware of recommendations derived from general learning that are applied to Singapore.

Solutions need to be adapted to particular contexts. Circumstances are not the same in Singapore as in Germany, Australia, or Canada. Singapore has unique characteristics that must be taken into account, for example, its multi-ethnic

diversity, its modernity and development, and its international character.

Don't misunderstand me: I'm not saying not to talk to experts. They should be listened to carefully. I'm saying beware of presumptuous theories out of generalised playbooks.

“Singapore has unique characteristics that must be taken into account, for example, its multi-ethnic diversity, its modernity and development, and its international character.”

## THE POLICE ROLE

In order to understand what the police might do in preventing radicalisation, it is necessary to ask a more general question: What activities must the police be prepared to do generally with respect to home-grown violence? I suggest that the police have ten responsibilities, and I invite readers to think whether I have missed any:

- (1) Covert detection (intel)
- (2) Disruption/dismantling of terrorist plots (penetration, detention, arrest, killing)
- (3) Risk analysis (likely targets)
- (4) Target hardening (physical protection)
- (5) Community mobilization for prevention (eyes and ears)
- (6) Protection of important persons and infrastructure
- (7) Emergency assistance at terrorist incidents (victims)
- (8) Order-maintenance when terrorism occurs (panic, looting, false information)
- (9) Mitigation of terrorist damage (repair, returning to normal)
- (10) Criminal investigation of terrorist incidents (arrest, prosecution, conviction)

This itemisation of responsibilities leads to two important conclusions. First, the police must be prepared to handle different kinds of work in dealing with terrorism. Second, except for items 1, 2, and 10, all the rest are handled largely by general-duties police officers. “General-duties” police are those who deal with the public as recognised police, mostly in uniform. This includes all patrol officers plus criminal-investigation detectives. The implication of this is clear: in an era of terrorism, covert specialists are important but they shouldn’t be developed at the expense of general-duties police. Furthermore, even with respect to items 1 and 2, general-duties police can make important contributions, if they are tasked to do so.

First, uniformed police are more numerous in coverage and therefore better positioned to observe activity leading to terrorism.

Second, uniformed police have extensive knowledge of local communities, especially what is normal and abnormal, that can be useful in preventing terrorist attacks.

Third, the precursor activities of terrorists are often supported by criminal activities that general-duties police keep track of and analyse, for example, theft of fissile and biochemical equipment and supplies; criminal conspiracies involving fraud and identify theft; intimidation within immigrant communities; and money-laundering through legal activities.

Fourth, uniformed police can build partnerships with businesses and private security locally, thereby expanding the network for prevention.

Fifth, the manner in which uniformed police respond to calls for assistance and behave in encounters with members of the public is crucial for gaining the support of local communities in discouraging radicalisation and isolating potential adherents. General-duties police, more than any other branch of the police, are

essential for bringing people ‘on the side’ of the government.

In short, special police units for the prevention of radicalisation and terrorism are certainly important. But the work of general-duties police units underpins their success.

## THE PREVENTION DILEMMA

Can police prevent radicalisation and violent extremism without simultaneously alienating the very sectors of the community they are trying to protect? Why do I suggest that this is a dilemma for the police? The answer is because prevention inevitably involves the observation and penetration of communities which may resent the attention. Follow my logic.

- (1) Prevention requires proactive gathering of intelligence about radicalisation and violence.
- (2) Doing this, however, targets precursor activities, not criminal events. It focuses on people who may become radicalised and commit violence rather than on people who have already committed crimes.
- (3) This involves increased observation of particular communities. Inevitably this will look like “profiling”, a very dirty word. In the United States, preventing radicalisation focuses on Muslim communities, such as immigrants from the Middle East. In Singapore, it will inevitably involve watching people from Malaysia and Indonesia.
- (4) Communities and individuals singled out for surveillance may resent the presumption that they should be suspected of anti-social actions. They would not like being treated with suspicion. Being treated as a potential criminal is insulting and demeaning.

The dilemma, then, is that the very communities that can provide critical intelligence and support about radicalisation are likely to regard the police with distrust and hostility. Can the police enlist critical public support while at the same time not treat the public as would-be criminals?

“General-duties police, more than any other branch of the police, are essential for bringing people ‘on the side’ of the government.”



Fortunately, the answer is yes. They do so by being tactically transparent. They must solicit assistance in sensitive communities, and with well-placed informants, by treating them as potential friends, not as suspects. The police need to appeal to them as part of the solution to the problem of radicalisation, not as part of the problem. The key is to appeal to the cooperation of communities openly, honestly, as co-producers of public safety. In other words, the police should openly discuss the problems that society faces with radicalisation and encourage the sharing of responsibilities for its prevention within critical sectors of it. Police can do this successfully because, as many studies have shown, most people in the communities-of-interest do reject radicalisation, fearing not only for their impressionable children but for the reputation of their community at large.

“The police are an essential component in good governance because they are its most visible face and provides its most fundamental services, namely, security and justice.”

The London Metropolitan Police (Met) provides an example of how this approach can be done. After the devastating terrorist attacks on London's subways and buses in July 2005, the Met not only increased funding for covert intelligence and targeted disruption, but for recruiting civilian residents, especially from 'minority' communities who spoke local languages, to patrol the streets side-by-side with uniformed police officers. They were called Police Community Services Officers. They were given a short orientation before taking on the job but were not authorised to carry weapons or make arrests. Furthermore, Special Branch, the long-standing covert, domestic intelligence unit of British policing, broke their 'cover' and openly solicited the help of communities, especially of their religious leaders. Special Branch created designated offices in each Borough where people might come forward with relevant information.

## CONCLUSION

Singapore, in my opinion, has unique advantages in solving the prevention dilemma. It has a long history of community-policing, stressing availability to all, respectful response, and community development. It has a community-oriented reputation on which to build programmes to prevent radicalisation. Furthermore, Singapore is small enough to be managed coherently. It does not face the problems of scale, either in population or geography that Britain, Australia, India, and the United States face.

Preventing extremist violence depends fundamentally on good government. This is abundantly clear from the examples of Pakistan, Afghanistan, Syria, Iraq, and other troubled 'failed' states. Singapore, in contrast, has an enviable international record of good governance, especially with respect to ethnic diversity, social services, and governmental corruption. The police are an essential component in good governance because they are its most visible face and provides its most fundamental services, namely, security and justice. It does this by being available, helpful, fair, and respectful in its dealing with the public. I have called this 'core policing' (Bayley and Perito, 2010). The Home Team calls it 'neighbourhood policing'.

In facing radicalisation, do not forget the importance of the phrase 'policing with consent'. This philosophy has made policing in Singapore distinctive in the world. It has never been more important than now.

## BIBLIOGRAPHY

Bayley, David H., and Robert Perito, 2010. *The Police in War: Fighting Insurgency, Terrorism, and Violent Crime*. Boulder, CO: Lynn Rienner Publishers.

European Union Council, 2005. *The European Union Strategy for Countering Radicalisation and Recruitment to Terrorism*.

European Union Council, 2008. *Counterradicalisation Strategy for Evaluating EU Policies Concerning Causes of Radicalisation*.

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## ABOUT THE HOME TEAM ACADEMY

The Home Team Academy's mission is to develop leaders, and drive and transform the Home Team's training and learning capabilities to keep Singapore safe and secure. It aspires to be the globally recognised Asian safety and security Corporate University.