

Supplementary Submission

To: Victorian Legislative Council Legal and Social Issues Committee
Date: 4 June 2021
From: Dr. Craig Horne
Subject: Deterrence theory
Topic: Supplementary submission from Dr. Horne in relation to his evidence provided on 13 May 2021 for the Victorian Legislative Council Legal and Social Issues Committee's Inquiry into Management of Child Sex Offender Information.

Dear members of the Victorian Legislative Council Legal and Social Issues Committee,

By way of introduction, this brief report on deterrence theory has been written by Dr. Craig Horne, at the request of the Committee. Dr. Horne has a PhD in information security strategy and the main concepts explored in his research are information, threats, controls to secure information, and decision choices for organisational leaders to make regarding the best path forward to secure information. By its nature, his research necessarily crosses over to understand threats to information, including cyber and human threats. Dr. Horne is not a psychologist but since threats to information can arise from humans, he has had to understand why humans might want to attack information, and how to dissuade them. For a more complete report on deterrence theory however, a psychologist with a speciality in the justice system should be consulted.

During the Committee hearing on 13 May 2021, the following matter was taken on notice:

1. MS WATT (page 20): In relation to deterrence theory: Where does deterrence theory come from and what is the background evidence around it?

As further background for this paper, see *Annexure A – Full Context* for all of Dr. Horne's commentary on deterrence theory to the Committee thus far.

What is deterrence theory?

Deterrence theory (in relation to criminal offending) is broadly based on the concept of using threats of punishment to deter people from committing acts of crime, thus reducing the probability and impact of offending on society. It forms one of the five aims of punishment, which are deterrence, denunciation, incapacitation, retribution and rehabilitation (Wright, 2010). There are two main impacts from deterrence, which are (1) to deter an individual offender from reoffending and (2) to have a generalised deterrence effect on society after details about punishments are made publicly known (Wright, 2010). Individual deterrence occurs when offenders receive punishment sufficient enough to cause them to weigh up the benefits versus the potential negative consequences of future actions. General deterrence occurs when punishments for offenders are publicised to the general public to dissuade people from receiving a similar punishment.

The effectiveness of deterrence depends on three factors, which are that a punishment must be swift, severe and certain (D'Arcy & Herath, 2011). If a punishment is lacking any of these, then deterrence effectiveness is reduced. A principle for using punishments as deterrence is that they should be used to change future behaviour, not used primarily as punishment for past behaviour, although that might be a side effect. An underlying assumption is that deterrence theory typically has an effect mainly on rational offenders, known as rational choice theory (Cornish & Clarke, 2017). Irrational offender's decision-making may be impaired by alcohol and drugs, mental health disorders, or brain injuries. Irrational offenders may not have the cognitive ability to consider the future consequences of their actions or calculate the likelihood and effect of getting caught and the possible punishments. Another assumption, called marginal deterrence, is that it is prudent to punish severe crimes more severely than milder crimes, and punish several crimes more severely than one, marginally increasing the deterrence effect.

There are some evidential flaws with deterrence theory. Most criminal offences happen whilst offenders are under the influence of alcohol and drugs, making decision-making about benefits and consequences of their behaviour difficult if not impossible. Similarly, most men in prison have a mental health or personality disorder, affecting their ability to make rational decisions about offending behaviour (Fazel & Danesh, 2002). Also, more than half of prisoners have experienced some kind of traumatic brain injury or disorder such as foetal alcohol spectrum disorder, reducing capacity for rational decision-making (Williams et al., 2010). Deterrence success also depends on a potential offender knowing what the likely punishment will be, and lack of fine-grained knowledge will undermine rational decision-making (Anderson, 2002). Only two percent of offences lead to a conviction, and one in five hundred lead to a prison sentence, and lack of certainty about being caught or punished reduces deterrent effect (Durrant, 2018).

There are some difficulties with estimating or measuring the effectiveness of punishments on offender's behaviour (Sherman, 1993). There have been many studies conducted using a variety of methodologies, investigating how different punishments affect assorted crimes under varying conditions and costs (Zimring, Hawkins, & Vorenberg, 1973). Some researchers believe that the entire justice system itself acts as a general deterrent and that new policies added to this system do little to increase the general deterrent effect (Nagin, 1998). Other research found that increased severity of punishment had only a slight individual deterrent effect (Nagin, Cullen, & Jonson, 2009).

How might deterrence theory apply to the management of child sex register information?

Considering the knowledge above, the following recommendations might be considered by the Committee:

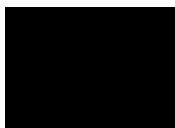
- 1) That the Committee decide to release child sex offender details onto a public register.
 - a) Benefits: this would achieve one of the two desired impacts of deterrence theory, which is to have a generalised deterrence effect on society after details about punishments are made publicly known.
 - b) Risks: risks include hackers changing the name of someone in the online register or adding a new name, or vigilantes attacking the sex offender or their family members.

- 2) That a first-time offender has their offending recorded on the public register for a limited period of time, between 1-5 years, to be decided during sentencing.
 - a) Benefits: It allows offenders who made a singular error of judgement or who have been rehabilitated to pursue a normal life again after their details are removed.
 - b) Risks: vigilantes create a mirror website, that records all information ever published on the public child sex offender register. This would then effectively circumvent this mechanism and make public disclosure of child sex offender details permanent. Another risk is that a first offence from a psychopathic offender may be so heinous that an immediate permanent record on the public register is more appropriate.
- 3) That if the offender does reoffend a second time, then that individual is recorded permanently on the public register.
 - a) Benefits: this would achieve one of the two desired impacts of deterrence theory, which is to deter an individual offender from reoffending and reduce recidivism. It imposes a severe penalty on the offender, the threat of which is necessary to help create a deterrent effect.
 - b) Risks: the increased cost to the public purse if an offender cannot work again after their public disclosure and needs to be supported financially by the State. There is also a risk that an offender may become demotivated to continue with rehabilitation and potentially lapse into recidivism.
- 4) That punishments for repeated offending should become increasingly severe.
 - a) Benefits: this responds to marginal deterrence theory, increasing the deterrent effect.
 - b) Risks: the human rights of offenders may be affected, which would need to be understood further.

The recommendation benefits should be utilised and amplified and the risks should be assessed for probability and impact, then mitigated via avoidance, acceptance, transference or limitation strategies.

I hope this report assists the Victorian Legislative Council Legal and Social Issues Committee with their deliberations around the management of child sex offender register information. I remain available to provide any further assistance should it be required.

Regards,



Dr. Craig Horne

Encl: Annexures (2)

Annexure A – Full Context

For complete context, Dr. Horne has so far provided the Committee with the following commentary on deterrence theory, which gave rise to the question from Ms. WATT.

In his original letter to the Committee, Dr. Horne wrote:

“For a deterrent to be effective in controlling the behaviour of rational people, it must be swift, severe, and certain (D'Arcy & Herath, 2011). To expand, deterrence theory states that formal sanctions, such as custodial sentences imposed by the courts, ensure that potential offenders consider both the risks and the costs of their intended illegal activity before engaging in it (Gibbs, 1968). Informal sanctions such as public disapproval also affect potential offenders (Piquero & Tibbetts, 1996).”

At the evidentiary hearing before the Committee, Dr. Horne stated the following:

“It has become clear to me that there are two benefits to this proposal, not just one. I have already identified that this proposal acts as a deterrent for future offenders, which reduces known and unknown threats. It also helps institutions that are charged with protecting children to prepare, which increases controls. Threats can be known or unknown. Known threats can and should be protected against, and this proposal to publicly disclose the identity of sex offenders to deter offenders is a good example of how to deal with known threats.”

Continuing:

“Another consideration is whether this countermeasure should be retrospective to include sex offenders previously registered or whether it should only act as a deterrent for possible future offenders. My view is that this countermeasure should be retrospective. However, it should only apply to people who are still alive and therefore could still be a threat.”

During the question-and-answer session, Mr GRIMLEY asked the following question:

“You suggested that there is a strong body of evidence to show that deterrence is reliable and effective. Can you just expand on that and perhaps direct the committee towards some evidence to support that statement?”

To which Dr. Horne replied:

“Yes, absolutely. A deterrent needs to have three properties: swift, severe and certain. If it is missing those, then it lacks its deterrent effect. So, when you see cases in court where appeals overturn original convictions and that kind of thing, it leads to people thinking, ‘Well, I can probably get away with this, or if I can’t, I’ll overturn it later. It’s not a permanent mark’, you know? The severity is important to instil fear in the potential offender and change their actions when they are weighing up the risks or the costs for their intended actions. I did include some references in the original submission that expand on that in much more eloquent terms, but effectively those are the three criteria that need to be met to make a deterrent effective.”

Mr GRIMLEY then asked:

"I have got a journal article here that was supplied also, 'A review and analysis of deterrence theory in the IS security literature'¹. Is that one of the references you are referring to?"

To which Dr. Horne replied:

"Yes."

Mr GRIMLEY then clarified:

"Did you want to speak about that at all in broad terms? What is deterrence theory in particular? What is that about?"

To which Dr. Horne replied:

"From our perspective what we do is we consider threats, both external and internal, to an organisation, because insider threat is just as insidious as the external threats. Once an organisation is connected to the internet, then you open up the door effectively to the entire world of hackers, globally. Any hacker can potentially circumvent controls and enter a company's network and start to access information.

I am on the business side of information security, and so we try and understand the human psychological aspects to it and best ways to manage information systems. There are a lot of aspects to information security on the people side if you consider how an organisation would govern—effectively your job—and how would you govern the controls that are put in place to protect the children of Victoria. Risk management policies, what policies would you set; the strategy for going forward; your accountability if you get a decision wrong; the culture that we create out in the community; and security education and training awareness programs all help combine and I think all are necessary to create a holistic approach to securing information. And you can measure your maturity in each of those discrete areas. So if you run a maturity assessment and you come across an area that is not that strong, you simply identify it, resource it appropriately and put it on the road map for the next 12 months to improve.

So deterrence is a way to both—what you are trying to do is degrade the threat's capability, both internal and external, to an organisation, by making them aware, increasing the chances they will get caught and that the punishments, if they do get caught, are quite severe—swift, severe and certain."

Ms WATT then asked:

"I am interested in understanding more about the deterrence theory, which you have spoken about a couple of times now, and I must confess it is a new one for me. I wonder if you could talk more about the body of evidence around this deterrence theory—where it comes from and what the sort of background evidence is around that—because it is certainly worth further consideration. Thank you."

To which Dr. Horne replied:

¹ D'Arcy, J., and Herath, T. 2011. "A Review and Analysis of Deterrence Theory in the Is Security Literature: Making Sense of the Disparate Findings," *European Journal of Information Systems* (20:6), pp 643-658.

“It sounds like that is a common question. Would the inquiry like me to put together some more information into a further report or something and send that through?”

The ACTING CHAIR responded:

“I think that would be very helpful.”

Annexure B – References

- Anderson, D. A. (2002). The deterrence hypothesis and picking pockets at the pickpocket's hanging. *American Law and Economics Review*, 4(2), 295-313.
- Cornish, D. B., & Clarke, R. V. (2017). Understanding crime displacement: An application of rational choice theory. In *Crime Opportunity Theories* (pp. 197-211): Routledge.
- D'Arcy, J., & Herath, T. (2011). A review and analysis of deterrence theory in the IS security literature: Making sense of the disparate findings. *European Journal of Information Systems*, 20(6), 643-658.
- Durrant, R. (2018). *An introduction to criminal psychology*: Routledge.
- Fazel, S., & Danesh, J. (2002). Serious mental disorder in 23 000 prisoners: a systematic review of 62 surveys. *The lancet*, 359(9306), 545-550.
- Gibbs, J. P. (1968). Crime, punishment, and deterrence. *The Southwestern Social Science Quarterly*, 515-530.
- Nagin, D. S. (1998). Criminal deterrence research at the outset of the twenty-first century. *Crime and justice*, 23, 1-42.
- Nagin, D. S., Cullen, F. T., & Jonson, C. L. (2009). Imprisonment and reoffending. *Crime and justice*, 38(1), 115-200.
- Piquero, A., & Tibbetts, S. (1996). Specifying the direct and indirect effects of low self-control and situational factors in offenders' decision making: Toward a more complete model of rational offending. *Justice quarterly*, 13(3), 481-510.
- Sherman, L. W. (1993). Defiance, deterrence, and irrelevance: A theory of the criminal sanction. *Journal of research in Crime and Delinquency*, 30(4), 445-473.
- Williams, W. H., Mewse, A. J., Tonks, J., Mills, S., Burgess, C. N., & Cordan, G. (2010). Traumatic brain injury in a prison population: prevalence and risk for re-offending. *Brain Injury*, 24(10), 1184-1188.
- Wright, V. (2010). *Deterrence in criminal justice: Evaluating certainty vs. severity of punishment*: Sentencing Project.
- Zimring, F. E., Hawkins, G., & Vorenberg, J. (1973). Deterrence: The legal threat in crime control.