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NUDGE; DON'T JUDGE: USING NUDGE THEORY TO DETER SHOPLIFTERS

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ABSTRACT

Crimes defined as “acts attracting legal punishment” are injurious to the community because they violate moral rules (Blackburn, 1993). However, not all crimes are deemed worthy of a custodial sentence. For example, the criminal act of shoplifting usually only results in jail time for repeated offences (Doughty, 2006). And research indicates that the threat of imprisonment may not be an effective deterrent for potential shoplifters (Gonnerman, 2004). The notion that shoplifting is detached from the victim (Wilkes, 1978, Ecenbarger, 1988) and common to all socioeconomic classes affords the perception that shoplifting is a “victimless crime” to many.

In this paper we suggest an alternative approach to tackling the problem. We examine whether deterrents engaging ‘nudge theory’ (Thaler and Sunstein, 2008) can discourage shoplifting. We review ‘design against crime’ literature and compare case studies to explore a new approach to preventing crime, using nudge as a theoretical framework. Our paper discusses how ‘rationality’ may influence criminal behaviour; that individuals indulge a “moment” of rational thinking before acting and how contemporary ‘design against crime’ techniques manipulate this thought-process to deter criminal behaviour. We argue that ‘nudge theory’ provides an interesting antithesis. To design against shoplifting using the theory of “nudge” we assert that people make choices non-rationally and can be deterred from situational crimes by designing environments with different contextual cues (Bonell et al., 2011) that deter crime.

We call upon the design research community to discuss; debate and design with nudge theory as a preventative approach to shoplifting.

Keywords: Shoplifting, Nudge Theory, Design Against Crime

1 INTRODUCTION

Blackburn defines crime as ‘acts attracting legal punishment [...] offences against the community’ (1993). Crime has injurious consequences in some way to the community at large or one or more people within it and is therefore considered a serious problem (Putwain and Sammons, 2002). Blackburn states society generally disapproves of crime because it involves violation of moral rules. However, he also points out certain limitations in this way of defining crime. For instance, by defining crime in this way we imply most people (in society) condemn it, in reality, not all people disapprove of all crime. For instance, while it is easier to identify the violation of a moral code in a subset of crime such as rape or murder, there is ‘victimless crime’ such as possession of

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banned drugs for personal use and consensual sex between 15-year-olds adding complexity to our understanding of crime.

Prisons have long served as our coping strategy to deal with criminals. In cases where an act of crime cannot be prevented, prisons serve as the answer. Interestingly there is plenty of research work positioning incarceration as a poor deterrent to criminal behaviour. Some evidence suggests prisons may even nurture criminal behaviour. Prisons have a large financial cost to society and present an opportunity for criminals to network and share skillsets (Hutcherson, 2012). According to the "Million Dollar Blocks" project run by Spatial Information Design Lab at Columbia University, roughly forty per cent of prisoners released, return within three years (Gonnerman, 2004) suggesting that a significant proportion of criminals do not reform and are undeterred by the experience of incarceration.

However, not all crime is deemed worthy of a custodial sentence. For example; the criminal act of shoplifting usually only attracts a custodial sentence for repeated offences (Doughty, 2006). Because shoplifting is common to all socioeconomic classes and ages, Arboleda-Florez et al. call it an "ordinary crime" (1977). As Ecenbarger points out, "although retailers are agitated over the shoplifting problem, the general public does not seem alarmed. This expensive crime also is an impersonal crime. There are no bodies strewn about the malls, no bloodstains on the store walls" (1988). Wilkes suggests shoplifting is considered a minor offence because the direct victim is not an individual but an "impersonal organization". In addition he also mentions consumers are generally more tolerant of nonviolent crime when they involve businesses (1978). On the other hand, Egan et al point out, "Victimless crimes are often used to excuse offending, but become 'victimful' once one considers persons involved in the criminal supply chains, and may be driven by thoughtlessness, which underlies many criminal cognitions" (2000). It is possible to make people thoughtful and yet they choose to disregard the suitable option. At this point they seem to be making an active decision to offend (Egan and Taylor, 2010).

This paper argues for the use of behavioural methods to deter shoplifters over punitive methods. After introducing and positioning the context for crime and incarceration, we discuss various theoretical approaches to 'design against crime'. The paper concludes by proposing the use of 'nudge theory' when developing effective interventions to reduce crime such as shoplifting.

2 SHOPLIFTING

A 1698 Act of Parliament defines shoplifting as "the crime of stealing goods privately out of shops" (Ecenbarger, 1988). Francis defines shoplifting, as "theft from the selling floor while a store is open for business" (1980). It can also be described as the act of stealing merchandise offered for sale in a retail store, usually by concealing it in a purse, pocket, bag, or under a coat (Yaniv, 2009). A recent television documentary on Channel 4 (UK) titled, *Secrets of the Shoplifters* (Wollaston, 2012), revealed how shoplifters have started using technology to reduce the risks or perceived costs associated with stealing. Increasingly shoplifters are using social media to stay ahead of the game. Figure 1 illustrates how open discourses about shoplifting techniques are taking place online. Forums such as eBaum's (Figure 1) offer an accessible, pseudonymous

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platform for shoplifters to share information, providing some insight of the kind of discourse likely taking place between criminals in Britain's jails.



Figure 1 – The nature of conversations on an online shoplifting forum.

There are numerous theorized motivational factors behind shoplifting. Peer influence is a significant motivational factor amongst juvenile shoplifters (Thall, 1973). Scientists have also studied personality disorders such as kleptomania (Blanco et al., 2008) and transient opportunism (possibly reducing with maturation and education) as motivating factors for shoplifting behavior (Egan and Taylor, 2010). Cameron identified particular clusters of shoplifters as 'boosters' i.e. criminals specializing in shoplifting and 'snitches' or occasional shoplifters (1964) describing different motivational factors respectively. Levinson positions that shoplifters are motivated by psychosocial or economic reasons. Examples of psychosocial motivation include peer pressure, a desire for thrill, impulse, intoxication, or compulsion (2002). Walsh (1978) argues the futility in rationalizing shoplifting behavior because the result will always be; "humans do things for countless different reasons". He posits that efforts should be focused on controlling shoplifting behavior instead.

In the following section a theoretical framework has been established to understand why might people indulge in such behavior and how it is being dealt with at present. We have included case studies to highlight examples of how 'design against crime' theories are presently used to deter shoplifters.

3 THEORETICAL FRAMEWORK

3.1 SOCIAL THEORIES

"Anomie" is a highly prominent theoretical construct in macro-social, particularly cross-national, criminological inquiry (Cochran and Bjerregaard, 2012). Durkheim in his seminal work "Suicide" talks about Anomie while discussing social causes of suicide (1951). Durkheim suggests rapid change in the (economic) standards and values of societies could result in certain individuals feeling alienated. Thus Anomie describes a breakdown of social bonds between such individuals and society, under unruly circumstances. This could lead to a fragmentation of social identity and rejection of self-regulatory values further leading to drastic measures such as "anomic" suicide (Puffer, 2009).

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In the context of crime, it was Robert Merton who famously based his "Strain Theory" on Durkheim's Anomie (1968). According to Merton, all members of the society share common values and goals but the means to achieve these goals are disproportionately distributed. This disparity between the goals (which are the same for everyone) and the means to achieve them (which are not the same for everyone) cause a "strain" or pressure on certain individuals. Such individuals tend to make certain adjustments in response to this strain. Merton referred to the types of adjustment to anomic conditions as "modes of individual adaptation," the differential distribution of which manifests the pressures exerted by the social structure (Featherstone and Deflem, 2003). Merton categorised people into five types based on their relationship to the socially accepted goals and the means to achieve them:

- Conformists: People who believe in the goals established by the society and the means to attain them. They tend to conform to the rules of the society.
- Ritualists: People who do not believe in the goals established by the society but they do believe in the means to attain them. They continue to work hard towards these goals in a ritualistic manner.
- Innovators: People who believe in the goals established by the society but they do not believe in the means to achieve them. Therefore they try to innovate and bypass the conventional ways to achieve these goals.
- Retreatists: People who reject both the goals established by the society and the means to achieve them. They use alcohol or drugs to retreat from the society.
- Rebels: People who not only reject the goals established by the society and the means to achieve them, but they substitute them with new goals and new means of attaining those goals as a rebellion.

Merton's strain theory has drawn mixed responses from other scholars. One of the criticisms for this theory is its limited applicability to economic crime (Agnew, 1992). Since shoplifting is primarily an economic crime, Merton's Strain Theory (ST) is only indirectly helpful, as in contextualising the problem.

3.2 CRIMINOLOGICAL THEORIES

This paper also looks at two related theories from criminology about the criminal thought process and motivation. Namely, Theory of Reasoned Action (TRA) (Ajzen and Fishbein, 1980) and Theory of Planned Behaviour (TPB) (Ajzen, 1985, Ajzen, 1991). There are three general components of TRA: behavioural intention (BI), attitude (A), and subjective norm (SN). TRA predicts behavioural intention and suggest a person's behavioural intention depends on the person's attitude about the behaviour and subjective norms.

Behavioural Intention = Attitude + Subjective Norm

Or

$BI = A + SN$

Here, Behavioural intention determines a person's relative strength of intention to perform certain behaviour. Attitude consists of beliefs about the consequences associated with performing it and subjective norm represents "the person's perception that most people who are important to him or her think he should not perform the behaviour in question" (Fishbein and Ajzen, 1975).

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TPB can be considered an improved version of TRA. Icek Ajzen included "perceived behavioural control" to enhance the predictive power of TRA (1991). According to Yzer, "the inclusion of perceived control over behavioural performance as an additional determinant of intention and behaviour marks one of the most significant developments in reasoned action theory. In essence, perceived behavioural control is a person's answer to the question 'Can I do it?' when he or she considers performing a particular behaviour" (2012). Therefore, if a person evaluates the suggested behaviour as positive (attitude), and if he / she thinks that their significant others want them to perform the behaviour (subjective norm), this results in a higher intention (motivation) and he / she is more likely to do so (Sheppard et al., 1988). This intention is further strengthened if they pose a perceived ability to "organise and execute the given type of performance" (Bandura, 1997). See Figure 2 below.

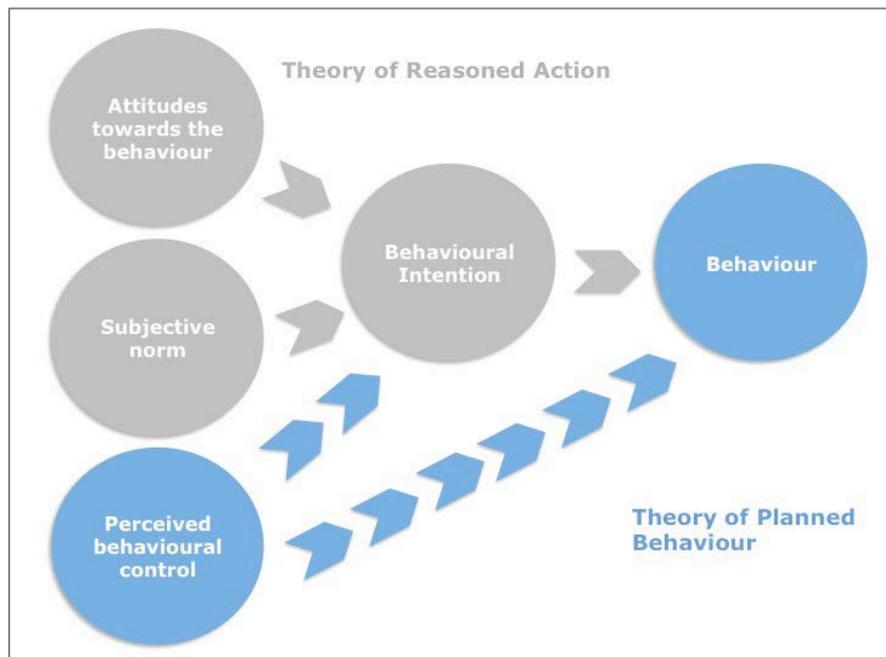


Figure 2 – The relationship between TRA and TPB

3.3 DESIGN AGAINST CRIME THEORIES

The two main theories considered here are Crime Prevention Through Environmental Design (CPTED) (Jeffery, 1971) and Situated Crime Prevention (SCP) (Clarke, 1997). Designers have used both theories to prevent crime.

— Crime Prevention Through Environmental Design

CPTED has become a "contemporary and fashionable consensus" (Cozens, 2008, Cozens et al., 2005) because its core principle is the effective use and design of the built environment, aimed at reducing crime and fear, and increasing quality of life (Crowe, 2000, Reynald, 2011). CPTED has found applicability in residential and commercial areas, public transportation hubs, car parks, sports stadiums etc. (Crowe, 2000). CPTED focuses on prevention of crime using physical and social environmental manipulations (Cozens, 2008). The main aim of CPTED is to "harden the target" for the criminal. Six concepts are key when trying to prevent

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crime; territoriality, access control, surveillance, activity programme, and defensible space (Moffatt, 1983). See Figure 3 below.

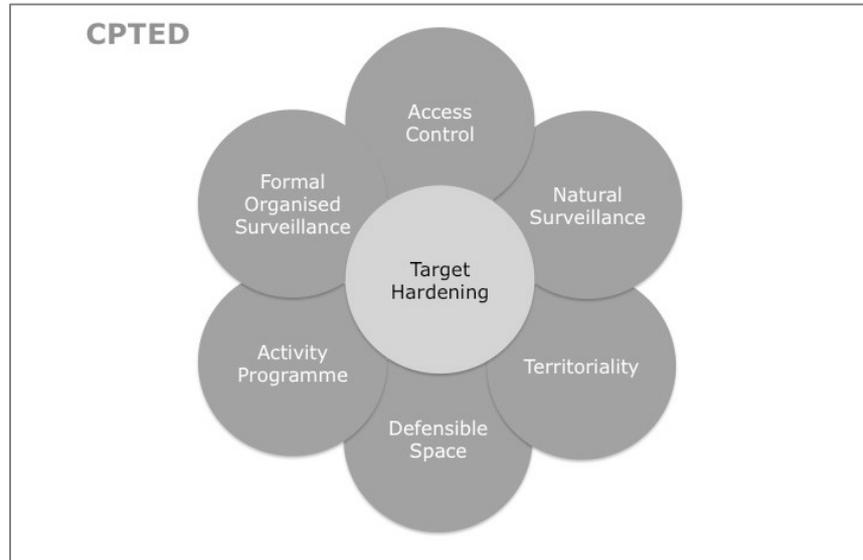


Figure 3 – Moffat's Model of CPTED.

3.3.1 Case Study: CPTED in action – Hulme Park, UK

Hulme is an area approximately one mile south of Manchester City Centre with a “disheartening past in terms of housing and development” (Mackay, 2006). A 1992 report published by Manchester City Council suggested the prevalence of high rates of crime in the area (1992). In a bid to tackle crime in Hulme district, a regeneration programme was initiated to develop Hulme Park. The aim of this development was to encourage social and physical links to the city centre, and to make it feel safe. It was designed in an open-plan style, with pathways and roads connecting the park to other parts of the city.

In their discussion of ‘Design Against Crime’ using CPTED, Davey et al provide an account of how Hulme Park helped reduce criminal activity. “In Hulme Park, Greater Manchester, the top rails of the surrounding fence have been slightly angled to make them uncomfortable to sit on and so prevent young people sitting on the fence and ‘hanging out’. While designed to be visually permeable, the low wall below the railings prevents cars and motorcycles from entering the public park. In addition, the fence has been constructed in two-metre sections, which can easily be replaced if damaged or vandalised. Such subtle design approaches do not provoke confrontation that could escalate any problems” (2005).

A ‘youth shelter’ has also been constructed within the park in a location acceptable to residents and to the young people concerned to provide a place where the latter can congregate and ‘hang out’ safely. The shelter has been designed to engender some sense of ownership – thus encouraging responsibility (Davey et al., 2005).

— Situational Crime Prevention

The basic principle behind SCP is to reduce the opportunities for specific categories of crime by increasing the associated risks and difficulties and

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reducing the rewards (Clarke, 1997). This theory operates on “rational choice perspectives” (Cornish and Clarke, 1986), we make our choices rationally after weighing means and ends, costs and benefits before acting (Clarke, 1997). SCP relies on ‘hardening the target’ by increasing risk and difficulty of crime and reducing rewards – based on the assumption criminals think rationally. See figure 4 below.

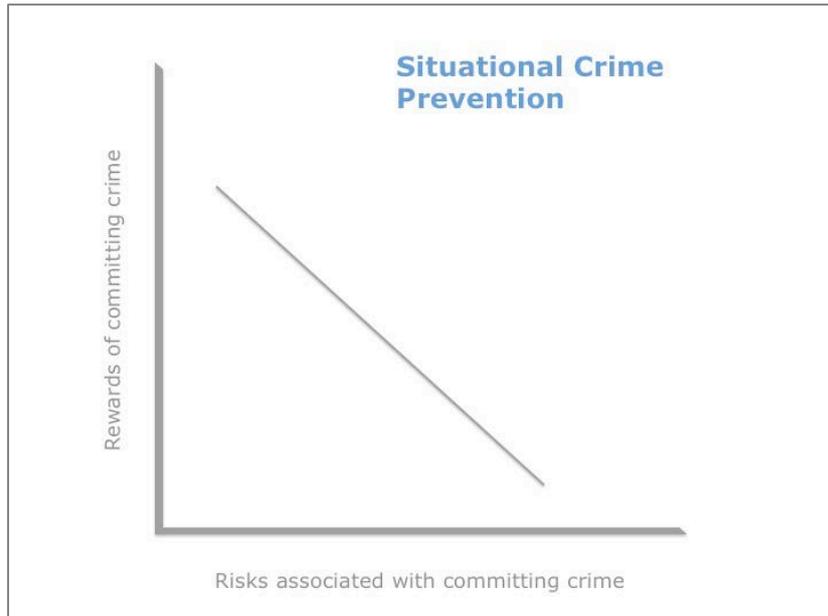


Figure 4 – A graphic representation of Situational Crime Prevention's intended objectives

3.3.2 Case Study: SCP in action – Twenty-five techniques of situational crime prevention

The following table illustrates how SCP can be used to reduce crime in different contexts. It has been adapted from Cornish and Clarke’s Twenty-five Techniques of Situational Crime Prevention (2003). It has been sourced from the Department of Attorney General and Justice, New South Wales, Australia (2011).

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Increase the effort	Increase the risks	Reduce the rewards	Reduce provocations	Remove the excuses
1. Harden targets Immobilisers in cars Anti-robbery screens Solid external doors with quality locks	6. Extend guardianship Neighbourhood watch	11. Conceal targets Do not keep valuables in plain sight Off-street parking	16. Reduce frustration & stress Efficient queuing Soothing lighting	21. Set rules Rental agreements Hotel registration
2. Control access to facilities Alley-gating Entry phones/secure entries	7. Assist natural surveillance Improved street lighting Neighbourhood watch hotlines	12. Remove targets Removable car radios Pre-paid public phone cards	17. Avoid disputes Reduce crowding in pubs	22. Post instructions 'No parking' 'Private property'
3. Screen exits Tickets needed Electronic tags for floor stock	8. Reduce anonymity Taxi driver IDs' How's my driving?' signs	13. Identify property Property marking Vehicle licensing	18. Reduce emotional arousal Control violent pornography Prohibit paedophiles working with children	23. Alert conscience Roadside speed display signs' Shoplifting is stealing'
4. Deflect offenders Street closures in red light district Separate toilets for women	9. Utilise place managers Train employees to prevent crime Support whistle blowers	14. Disrupt markets Checks on pawn brokers Licensed street vendors	19. Neutralise peer pressure Campaigns depicting what friends think of risk-taking behaviour (e.g. Speeding & Drug campaigns) "It's ok to say no"	24. Assist compliance Litter bins Public lavatories
5. Control tools/ weapons Tougher beer glasses Photos on credit cards	10. Strengthen formal surveillance Speed cameras Security guards	15. Deny benefits Ink merchandise tags Graffiti cleaning	20. Discourage imitation Rapid vandalism repair	25. Control drugs/alcohol Breathalysers in pubs Alcohol-free events

Figure 5 – Cornish and Clarke's Twenty-five Techniques of Situational Crime Prevention (2003) with examples

4 REVIEW OF LITERATURE

Even though shoplifting might appear "ordinary" (Arboleda-Florez et al., 1977, Ecenbarger, 1988, Wilkes, 1978), it affects everyone (at least financially). In 2010 British retailers lost goods and cash costing £3.7 billion (Bamfield, 2011). British Retail Consortium (BRC) conducted a survey in which they found nearly 0.5 million people stealing from them in 2011 (Bamfield, 2012b). It is also estimated UK shoplifting cost around £999.7 million within six weeks during Christmas, 2012. If approximations are to be believed, these six-week losses translate into a cost of £38.09 per household (Bamfield, 2012a). This is because retailers raise prices to cover losses and the cost of increased commercial security (Tonglet, 2002, Ecenbarger, 1988). There is large financial incentive for more research in this area that could potentially reduce these costs to the British economy. The paper will inform disciplines such as design, management and policy making.

A review of relevant literature from sociology, design and criminology finds 'rationality' important motivationally for crime. Of the theories discussed in this paper, some are more closely linked to rationality than the others as seen in Figure 6.

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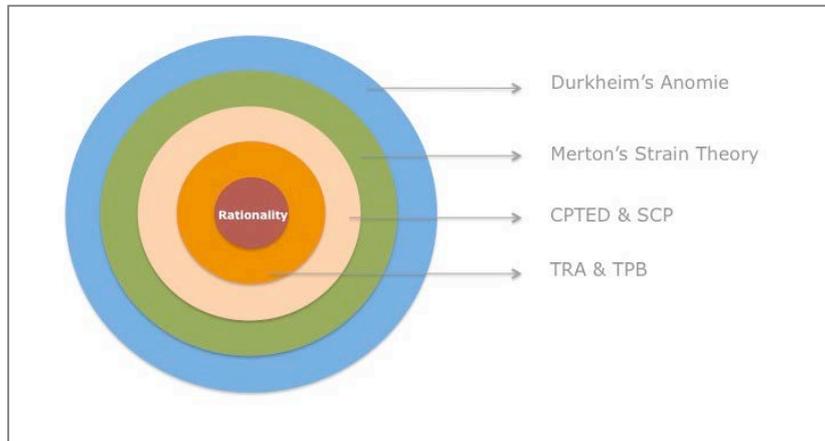


Figure 6 – A model to show how rationality is at the heart of all crime theories reviewed

Therefore it can be understood that all individuals rely on a certain thought process before indulging in any behaviour – a “moment” of rational thinking. Durkheim’s Anomie requires an individual to assess the mismatch between personal and group standards (1951). Merton’s Strain theory relies on the choices an individual makes in response to the pressure he / she feels as a member of society (1968). CPTED and SCP capitalise on a criminal’s ability to gauge a situation and the risks involved to deter them (Jeffery, 1971, Clarke, 1997). Similarly, TRA and TPB explain motivation amongst criminals through “rational choices” (Ajzen, 1985, Ajzen, 1991, Ajzen and Fishbein, 1980). This “moment” of rational thinking can be as short as a few seconds for an opportunist or as long as days and months for others who likes to plan their moves. It could even be the difference between a “booster” and a “snitch” (Cameron, 1964).

The rational thought process described above is targeted predominantly in research on shoplifting prevention. Glasscock et al believe such studies fall under two categories: Namely “shoplifter as client” and “retailer as client” (1988). “Covert sensitisation” (Cautela, 1967) involves working with shoplifters and training them to imagine a shoplifting sequence and then the negative consequences associated with being caught in the act. On the other hand, McNees et al suggest anti-shoplifting signs can be employed at retail stores to decrease theft (1976). Also Gamman et al’s suggestions of using role-play and visualisation to understand a shoplifter’s behaviour are an innovative way of understanding how shoplifters assess situations and respond to them (2012). Measuring the effectiveness of these methods is challenging because it depends upon a shoplifter’s own account post-treatment, an actor’s interpretation of the scene of crime, or quantitative analysis of the sales ledger.

All of these methods assume criminals make their choices rationally and therefore need to target this thought process to deter them. Alternatively, the theory of “nudge” (Thaler and Sunstein, 2008) assumes people make some decisions unconsciously, non-rationally and are influenced by contextual cues, thus their behaviour can be manipulated. In a social context this change in behaviour can present a different set of choices for the actor in the environment (Bonell et al., 2011). Nudge theory is relatively new and is successfully used to form policy in economics and healthcare (Banerjee et al., 2011). It provides an antithesis to methods targeting rationality and hence to the theories reviewed earlier in this paper.

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Markin et al. state, "The retail store is a bundle of cues, messages and suggestions which communicate to shoppers. The retail store is not an exact parallel to the skinner box (a device constructed by researchers to carefully study behaviour in a completely controlled environment), but it does create mood, activate intentions and generally affect customer reactions" (1976). These bundles of cues, messages and suggestions can be seen as enablers to what Giddens calls "rules and resources" for "social activity" (1984). Stacey et al have also highlighted how human interactions with objects, signage and cues can affect emotional responses (2011). Manipulation of these signs and cues can activate emotions / intentions amongst users of the environment. In his work on organisational restructure, Bartunek highlighted how organisational members' interpretation of, and emotional reactions to "environmental factors" can affect changes in interpretive systems (1984).

Critics of nudge theory condemn it as they feel that it relies on eliminating as opposed to offering, choices for people (Farrell and Cosma, 2011). Selinger points out how application of nudge theory is 'difficult', how it can be 'coercive' or sometimes have unintended consequences that challenge democratic values (2013). However, in their critical examination of the discourse on nudge, Hansen and Jespersen concluded that it is not 'manipulative' in nature (2013) and that some of that "fewer problematic cases exist than has been claimed" (Selinger, 2013). Therefore there is not enough evidence to reject the use of nudge-based interventions to prevent shoplifting. We suggest that interventions based on nudge theory can be used akin to Walker's propositional design objects (2011) to communicate not only with shoppers but with shoplifters as well in order to discourage shoplifting behaviour. Such experimentation can help in exploring possible strengths and / or potential weaknesses of Nudge theory in this area.

4.1 EXAMPLE CASE STUDY: HAND FROM ABOVE

In a joint co-commission between FACT: Foundation for Art & Creative Technology and Liverpool City Council. "Hand From Above" (Figure 6) is a project designed to encourage the public to question their daily routines by presenting the choice for playful interaction in the public space (O' Shea, 2009).



Figure 7 – Hand from Above project, Liverpool City Centre, UK

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This project engages the non-rational thought process of the public to change the social dynamic within the public environment and inadvertently assist in the natural surveillance of the space. From empirical observation of video footage from the project, people can be seen not only interacting with the installation but also performing for other members of the public; drawing laughter from the crowd. This behaviour increases natural surveillance and is identified in SCP theory as a key technique to reduce anonymity for the criminal. It is a much riskier environment for a criminal to operate; a pickpocket for example is presented with a much-hardened target in this space. Designs of this nature could be placed within retail environments to deter shoplifting in a similar manner. The design method does not necessarily have to be empathetic, but would have to be relatively low-cost to meet the definition of nudge.

5 CONCLUSIONS

This paper discusses shoplifting as a societal problem. It looks at shoplifting from a multidisciplinary perspective and proposes preventative measures. It discusses public perceptions of shoplifting and its realised social implications. Through a review of existing research in the field, this paper recognises existing approaches to understand and prevent shoplifting.

In this paper we frame "nudge" theory as a method to deter shoplifters. An exhaustive review of literature suggests a vast majority of the work done in the field of shoplifting targets the rational thought process. Popular preventative methods try to increase costs and decrease benefits associated with shoplifting behaviour using sometimes-obtrusive interventions; others propose 'treating' shoplifters through education. Alternatively this paper proposes the use of nudge by designing retail environments that explicitly afford the choice for customer engagement. This will present opportunities for the public to assist in natural surveillance through a non-rational thought process; thus reducing anonymity for the shoplifter, a technique used in SCP.

This paper makes a valuable contribution by drawing on three different disciplines (sociology, design and criminology) to construct a theoretical framework of motivation to shoplift. Having set the multidisciplinary theoretical framework, the paper then suggests an alternative approach. This paper opens up further areas for empirical research, nudge theory has not been used to prevent crime before; this paper underlines the importance of exploring this gap in theoretical knowledge. This paper calls upon the designer community to experiment with nudge theory in order to highlight its potential strengths and weaknesses.

6 REFERENCES

- AGNEW, R. 1992. Foundation for a general strain theory of crime and delinquency*. *Criminology*, 30, 47-88.
- AJZEN, I. 1985. *From intentions to actions: A theory of planned behavior*, Springer.
- AJZEN, I. 1991. The theory of planned behavior. *Organizational behavior and human decision processes*, 50, 179-211.
- AJZEN, I. & FISHBEIN, M. 1980. Understanding attitudes and predicting social behaviour.
- ARBOLEDA-FLOREZ, J., DURIE, H. & COSTELLO, J. 1977. Shoplifting: An ordinary crime? *International Journal of Offender Therapy and Comparative Criminology*.

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- BAMFIELD, J. 2011. The Global Retail Theft Barometer 2011. Boughton, Notts: Centre for.
- BAMFIELD, J. 2012a. Shoplifting for Christmas: How Criminals Profit From The Festive Season. Newark, Nottinghamshire: Centre for Retail Research.
- BAMFIELD, J. 2012b. *Shopping and crime*, Palgrave Macmillan.
- BANDURA, A. 1997. *Self-efficacy: The exercise of control*, Worth Publishers.
- BANERJEE, A., BANERJEE, A. V. & DUFLO, E. 2011. *Poor economics: A radical rethinking of the way to fight global poverty*, PublicAffairs.
- BARTUNEK, J. M. 1984. Changing interpretive schemes and organizational restructuring: The example of a religious order. *Administrative science quarterly*, 355-372.
- BLACKBURN, R. 1993. The psychology of criminal conduct: Theory, research and practice. New York.
- BLANCO, C., GRANT, J., PETRY, N., SIMPSON, H., ALEGRIA, A., LIU, S.-M. & HASIN, D. 2008. Prevalence and correlates of shoplifting in the United States: results from the National Epidemiologic Survey on Alcohol and Related Conditions (NESARC). *American Journal of Psychiatry*, 165, 905-913.
- BONELL, C., MCKEE, M., FLETCHER, A., HAINES, A. & WILKINSON, P. 2011. Nudge smudge: UK Government misrepresents "nudge". *The Lancet*, 377, 2158-2159.
- CAMERON, M. O. 1964. *The booster and the snitch: Department store shoplifting*, Free Press of Glencoe New York.
- CAUTELA, J. R. 1967. Covert sensitization. *Psychological Reports*, 20, 459-468.
- CLARKE, R. V. G. 1997. *Situational crime prevention*, Criminal Justice Press.
- COCHRAN, J. K. & BJERREGAARD, B. 2012. Structural Anomie and Crime A Cross-National Test. *International Journal of Offender Therapy and Comparative Criminology*, 56, 203-217.
- CORNISH, D. B. & CLARKE, R. V. 1986. *The reasoning criminal: Rational choice perspectives on offending*, Springer-Verlag New York.
- CORNISH, D. B. & CLARKE, R. V. 2003. Opportunities, precipitators and criminal decisions: A reply to Wortley's critique of situational crime prevention. *Crime prevention studies*, 16, 41-96.
- COZENS, P. 2008. Crime prevention through environmental design. *Environmental criminology and crime analysis*. Willan Publishing, Cullompton, Devon, 153-177.
- COZENS, P. M., SAVILLE, G. & HILLIER, D. 2005. Crime prevention through environmental design (CPTED): a review and modern bibliography. *Property management*, 23, 328-356.
- CROWE, T. D. 2000. *Crime prevention through environmental design: Applications of architectural design and space management concepts*, Butterworth-Heinemann.
- DAVEY, C. L., WOOTTON, A. B., COOPER, R. & PRESS, M. 2005. Design against crime: extending the reach of crime prevention through environmental design. *Security Journal*, 18, 39-51.
- DEPARTMENT OF ATTORNEY GENERAL AND JUSTICE 2011. Situational Crime Prevention. New South Wales, Australia.
- DOUGHTY, S. 2006. *Shoplifters should never go to jail, say sentence watchdogs* [Online]. Available: <http://www.dailymail.co.uk/news/article-402128/Shoplifters-jail-say-sentence-watchdogs.html> [Accessed 20 October 2014].
- DURKHEIM, E. 1951. Suicide: A study in sociology (JA Spaulding & G. Simpson, Trans.). Glencoe, IL: Free Press. (Original work published 1897).
- ECENBARGER, W. 1988. The High Cost of Shoplifting. *The Rotarian*. Rotary International.
- EGAN, V., MCMURRAN, M., RICHARDSON, C. & BLAIR, M. 2000. Criminal cognitions and personality: what does the PICTS really measure? *Criminal Behaviour and Mental Health*, 10, 170-184.

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- EGAN, V. & TAYLOR, D. 2010. Shoplifting, unethical consumer behaviour, and personality. *Personality and Individual Differences*, 48, 878-883.
- FEATHERSTONE, R. & DEFLEM, M. 2003. Anomie and strain: Context and consequences of Merton's two theories. *Sociological inquiry*, 73, 471-489.
- FISHBEIN, M. & AJZEN, I. 1975. *Belief, attitude, intention and behavior: An introduction to theory and research*.
- FRANCIS, D. B. 1980. *Shoplifting: The crime everybody pays for*, Elsevier/Nelson Books.
- FARRELL, H. & COSMA, S. 2011. 'Nudge' policies are another name for coercion [Online]. Available: <http://www.newscientist.com/article/mg21228376.500-nudge-policies-are-another-name-for-coercion.html> - .VO-NDIOsWHw [Accessed 25 February 2015].
- GAMMAN, L., THORPE, A., MALPASS, M. & LIPAROVA, E. 2012. Hey Babe Take a Walk on the Wild Side!: Why Role-playing and Visualization of User and Abuser Scripts Offer Useful Tools to Effectively Think Thief and Build Empathy to Design Against Crime. *Design and Culture*, 4, 171-193.
- GIDDENS, A. 1984. *The constitution of society: Outline of the theory of structure*. University of California Press, Berkeley, CA.
- GLASSCOCK, S. G., RAPOFF, M. A. & CHRISTOPHERSEN, E. R. 1988. Behavioral methods to reduce shoplifting. *Journal of Business and psychology*, 2, 272-278.
- GONNERMAN, J. 2004. Million-Dollar Blocks: The neighborhood costs of America's prison boom. *Village Voice*, 9.
- HANSEN, P. G. & JESPERSEN, A. M. 2013. Nudge and the Manipulation of Choice: A Framework for the Responsible Use of the Nudge Approach to Behaviour Change in Public Policy. *Eur. J. Risk Reg.*, 3.
- HUTCHERSON, D. T. 2012. Crime pays: The connection between time in prison and future criminal earnings. *The Prison Journal*, 0032885512448607.
- JEFFERY, C. R. 1971. *Crime prevention through environmental design*, Sage Publications Beverly Hills.
- LEVINSON, D. 2002. *Encyclopedia of crime and punishment*, SAGE Publications, Incorporated.
- MACKAY, L. 2006. *Evaluation of the Regeneration of Hulme, Manchester* [Online]. Available: [http://www.vivacity2020.co.uk/Members/WP3 Hulme Report - Case Study.doc](http://www.vivacity2020.co.uk/Members/WP3_Hulme_Report_-_Case_Study.doc) [Accessed 27 October 2014].
- MANCHESTER CITY COUNCIL 1992. *City Challenge: Hulme Action Plan 1992/97*. Manchester: Manchester City Council.
- MARKIN, R. J., LILLIS, C. M. & NARAYANA, C. L. 1976. Social psychological significance of store space. *Journal of Retailing*, 52, 43-54.
- MCNEES, M. P., EGLI, D. S., MARSHALL, R. S., SCHNELLE, J. F. & RISLEY, T. R. 1976. Shoplifting prevention: Providing information through signs. *Journal of Applied Behavior Analysis*, 9, 399-405.
- MERTON, R. K. 1968. *Social theory and social structure*.
- MOFFATT, R. 1983. Crime prevention through environmental design-a management perspective. *Canadian J. Criminology*, 25, 19.
- O' SHEA, C. 2009. *Hand from Above* [Online]. Available: <http://www.chrisoshea.org/hand-from-above> [Accessed 30 October 2014].
- PUFFER, P. 2009. Durkheim Did Not Say Normlessness: The Concept of Anomic Suicide for Introductory Sociology Courses. *Southern Rural Sociol*, 24, 200-222.
- PUTWAIN, D. & SAMMONS, A. 2002. *Psychology and crime*, Routledge.
- REYNALD, D. M. 2011. Translating CPTED into crime preventive action: A critical examination of CPTED as a tool for active guardianship. *European Journal on Criminal Policy and Research*, 17, 69-81.
- SELINGER, E. 2013. When Nudge Comes to Shove: Do people really know what's good for them? [Online]. Available: http://www.slate.com/articles/health_and_science/new_scientist/2013/0

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- 7/nudge_critiques_is_nudging_behavior_unethical_infantilizing_coercive_or.html [Accessed 25 February 2015]. SHEPPARD, B. H., HARTWICK, J. & WARSHAW, P. R. 1988. The theory of reasoned action: A meta-analysis of past research with recommendations for modifications and future research. *Journal of consumer Research*, 325-343.
- STACEY, P., BASCAVUSOGLU-MOREAU, E. & TETHER, B. Empathic service systems: 'designing' emotion in a cancer care service system. System Sciences (HICSS), 2011 44th Hawaii International Conference on, 2011. IEEE, 1-10.
- THALER, R. H. & SUNSTEIN, C. R. 2008. *Nudge: Improving decisions about health, wealth, and happiness*, Yale University Press.
- THALL, M. M. 1973. *Behavioral components of adolescent shoplifting*. University of Michigan.
- TONGLET, M. 2002. Consumer misbehaviour: an exploratory study of shoplifting. *Journal of Consumer Behaviour*, 1, 336-354.
- WALKER, S. 2011. *The spirit of design: objects, environment and meaning*, Earthscan publications.
- WILKES, R. E. 1978. Fraudulent behavior by consumers. *The Journal of Marketing*, 42, 67-75.
- WOLLASTON, S. 2012. TV review: *Secrets of the Shoplifters* | Richard Wilson on Hold [Online]. The Guardian. Available: <http://www.theguardian.com/tv-and-radio/2012/jan/16/secrets-of-shoplifters-tv-review> [Accessed 20 October 2014].
- YANIV, G. 2009. Shoplifting, monitoring and price determination. *Journal of Socio-economics*, 38, 608-610.
- YZER, M. 2012. Perceived Behavioral Control in Reasoned Action Theory A Dual-Aspect Interpretation. *The ANNALS of the American Academy of Political and Social Science*, 640, 101-117.