The Role of Crime Prevention through Environmental Design (CPTED) in Improving Household Security

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Burglary risk

Residential burglary whilst in decline (Farrell, 2021), is a crime that imposes multiple negative effects on individuals, communities and statutory and voluntary agencies. Those experiencing burglary are affected emotionally, physically and financially (Brown and Harris, 1989; Shaw and Chenery, 2007; Heeks *et al,* 2018; Cohen, 2000); communities with high levels of burglary see a flight from crime (where people can), as well as reductions in community cohesion and confidence (Rogerson and Pease, 2017); and response agencies (police, forensics, doctors, legal to name a few) see resources overwhelmed by demand (Laufs *et al,* 2020).

Whilst difficult to give an accurate reflection of burglary risk, following a year of significant changes to mobility within properties and wider communities (England saw three lockdowns - March 2020, November 2020 and January 2021), there is clear evidence that, changes specific to Covid-19 aside, burglary has declined significantly in England and elsewhere (see Farrell, 2021 for a review of the crime drop). Burglary figures for the year ending March 2020 confirm what we know regarding burglary risk for household and neighbourhood characteristics, risk is not uniform and, essentially, those in the younger age categories, ethnic minorities, single parents, those living in the 20% most deprived neighbourhoods and those renting their property are at a greater level of risk. These factors are largely out of our control. Other than flagging risk and directing resources, there is little we can do with this information. Yet there are features of properties and neighbourhoods that can be controlled (albeit not all within the residents' power to influence) and that will positively affect our burglary risk, including the level and nature of security (ONS, September 2020), the design and layout of the street (Johnson and Bowers, 2010; Armitage 2018b) and the network of connections within the surrounding area (Birks and Davies, 2017; Gerell, 2021).

Security measures

Improving the physical security of residential properties reduces burglary risk, but what may appear obvious hides a little more nuance specific to the level and combinations of security devices, and nowhere is this more clearly demonstrated than in the series of publications analysing the CSEW led by Tseloni (Tseloni *et al,* 2014; Tseloni *et al* 2017a; Tseloni *et al,* 2017b) that demonstrate the differential impact on burglary of combinations of household security devices. The 'nuance' relates to specific crime prevention devices (most notably burglar alarms) not acting as protective factors in preventing burglary, as well as refuting any belief that 'the more [security devices] the merrier '– protection does not consistently increase with the number of devices that make up each combination. This is confirmed in the CSEW data for the year ending March 2020 that whilst 'no, or less than basic' security results in the highest risk of burglary (4.3), properties with 'at least basic' security (0.6) experienced a lower level of risk than those with 'enhanced security' (1.3). Analysing CSEW burglary data between April 2007 and March 2012, Tseloni *et al* (2017a) established that particular security device combinations resulted in significant protection against burglary. CWSD – CCTV, window and

door locks and security chains resulting in 52 times more protection than no security, and WIDE (indoor and outdoor lights and locks on windows and doors) giving 49 times more protection.

On a broader level Vollaard and Ours (2011) report the findings of an extensive assessment of the changes in building security standards (to include security) in the Netherlands. Similar to England and Scotland, albeit much earlier, building regulations were enhanced in 1999 to include the requirement for all windows and doors (on new build properties) to be made from material certified and approved by the European ENV 1627:1994 Class 2 standard, or the Dutch NEN 5096, Class 2 standard. Using data from four waves of the annual National Victimisation Survey, the results revealed that the regulatory change resulted in a reduction in burglary (within the sample) from 1.1 to 0.8 per cent annually – a reduction of 26 per cent. The evaluation also revealed that this reduction had not resulted in a displacement of crime to other acquisitive crime offences.

On a more micro level, when interviewing incarcerated prolific burglars, Armitage (2017) found that, when describing the features of housing design that deter them from offending, they named physical security as the second most important factor (after surveillance). The concept of physical security was referred to by each of the twenty-two burglars an average of five times, in total 103 occasions across the sample.

The focus of this chapter is the crime reduction intervention Crime Prevention through Environmental Design (CPTED), which whilst including the principle of '*physical security'* (doors, windows, locks, fences etc.) also includes the broader principles of the design and layout of a property and the street on which it is located (we refer to this here as *design and layout)*, and the wider *network* of street connections that make up the development on which the property is located. This chapter does not seek to consider the historical development of CPTED, nor its limitations (for a summary see Armitage, 2018a). The focus will be upon implementation within policy and practice, evidence of effectiveness and consideration for broadening of scope.

CPTED has been defined in broadly similar terms by Crowe (2000), Ekblom (2011) and Armitage (2013). Each refer to the design and manipulation of the built environment, to the desire to reduce crime and the fear of crime and to enhance quality of life through the reduction of opportunities for crime.

> *"The design, manipulation and management of the built environment to reduce crime and the fear of crime and to enhance sustainability through the process and application of measures at the micro (individual building/structure) and macro (neighbourhood) level*" (Armitage, 2013, p. 23).

Based upon the Opportunity Theories of crime (Routine Activity Theory – Cohen and Felson, 1979; Rational Choice Theory – Cornish and Clarke, 1986 and Crime Pattern Theory – Brantingham and Brantingham – 1981), CPTED seeks to increase the risks associated with committing a crime – through enhanced *surveillance, defensible space* and *physical security;* reduce the ease with which targets can be identified, selected, navigated and egressed – through *movement control;* and reduce the perception of reward (versus risk) – through *management and maintenance.* These five principles, defined by Armitage (2013) are used interchangeably, with differences in terminology. For example, guardianship can be referred

to as territoriality or defensible space; movement control as permeability, connectivity etc., however, the premise behind the specifics of implementation remains the same.

Design and layout

Properties, and the developments upon which they are located, when designed according to the principles of CPTED would maximise *natural* or *informal surveillance.* Specific features of the design would include:

1) Orienting properties to face the street;
2) Ensuring that active rooms are at the front of the property;
3) Ensuring lines of sight are kept free of obstructions such as high fences/walls/shrubbery;

Research with convicted burglars suggests that levels of informal surveillance play a key role in their decision making. Most significantly, in interviews with 22 incarcerated burglars, Armitage (2017) found that the principle of surveillance (not necessarily the specific term) was the most commonly named deterrent feature of the design and layout of images that they were shown – referred to on 133 occasions and by all 22 burglars. Similar studies with offenders (Repetto, 1974; Nee and Meenaghan, 2006; van Sintemaartensdijk *et al,* 2020) have confirmed that burglars are deterred by the risk of surveillance, prefer to avoid properties where there is a risk of active guardianship and are attracted to properties where there is an element of cover. Armitage's (2018b) qualitative analysis of burglar response to target attractiveness confirming that burglars are attracted to properties with limited surveillance opportunities.

Surveillance is also confirmed as a risk factor when analysing crime data, with victimised properties being designed with lower levels of natural surveillance (Winchester and Jackson, 1982; Van der Voordt and Van Wegen, 1990; Armitage, 2006; Reynald, 2009; Armitage *et al,* 2010; Moir *et al.,* 2017; Reynald *et al.,* 2018).

Another principle of CPTED, incorporated within the design and layout of properties and their wider surroundings is *defensible space.* The term, introduced by Oscar Newman (1973) largely describes the extent to which the ownership of space is clearly defined, eliciting (or not) a territorial response from those responsible for that space. In the simplest terms, defensible space describes the extent to which space is allocated in terms of ownership/responsibility, and the clearer this is, the more likely that those responsible will act accordingly - or potential offenders will perceive that they *might.* In terms of specific measures to maximise defensible space, examples include the use of symbolic barriers – a narrowing of the road entrance, a change in colour and/or texture, the use of fencing (albeit low and transparent) to demarcate public/private space and the use of signage indicating ownership.

Research examining burglar perceptions of risk confirms that the concept of defensible space is a significant deterrent (Brown and Bentley, 1993; Armitage, 2017). Brown and Altman (1983); Armitage (2006) and Montoya *et al* (2014) also confirming that properties designed with higher levels of defensible space experienced lower levels of recorded burglary. In interviews with incarcerated burglars, whilst the concept of defensible space was only referenced 11 times by burglars describing what they saw as deterrent features, it still played a key role in influencing decisions regarding risk.

Street Networks

CPTED asserts that the network of streets upon which a property is located will also influence the likelihood of burglary risk – the principle of reducing *connectivity*, also referred to as *permeability* or *through movement*, applies. This is perhaps the most contentious of the CPTED principles, in that much planning policy (see below) that supports the notion of designing out crime, also promotes increasing through movement – as a means of increasing walkability and reducing the impact of motor vehicles on street frontages. The notion of reducing the 'risk' of poorly designed pathways/walkways as opposed to aiming for an enclosed development has progressed significantly over the past decade, and what was once presented as a polarised debate – '*cul-de-sac versus through roads',* is now largely understood as a much more nuanced issue.

Research examining the links between connectivity and burglary risk has almost exclusively confirmed that the presence of more street connections is associated with enhanced burglary risk (Van der Voordt and Van Wegen, 1990; Wiles and Costello, 2000; Armitage, 2006; Armitage *et al,* 2010*;* Johnson and Bowers, 2010; Johnson and Bowers, 2014; Davies and Johnson, 2014; Birks and Davies, 2017). Armitage *et al.,* (2010) found that, compared to a 'true' *cul-de-sac* (with no connecting footpaths), through roads experienced 93% more crime, and 'leaky' *culs-de-sac* (with connections) experienced 110% more crime. That leaky *culs-de-sac* are the most vulnerable street network is confirmed by Hillier (2004) and Armitage (2006). Johnson and Bowers' (2010) research also supported the idea that the *cul-de-sac* is the safest street layout and went further to distinguish between sinuous and linear layouts, with sinuous presenting the lowest burglary risk. The concept of through movement, the presence of/flows of people within an area produces two possible crime prevention outcomes. The presence of more people creates more potential offenders/targets, thus, increasing the crime risk; and, the presence of more people creates more potential capable guardians, thus reducing crime risk (Gerell, 2021). In reality, equating levels of permeability within a housing development, with other hot spot locations (say busy transport hubs) is not helpful. Connections may provide the means, and encouragement for pedestrian movement, but the flow is unlikely to be enough to produce what Jacobs (1961) referred to as *eyes on the street,* or the guardianship that may enhance perceptions of risk for offenders. What it generally produces is more an opportunity to access, move through and egress an area and a legitimate reason to be in a given place that allows inconspicuous 'rooting'. As Armitage's (2017) research with incarcerated burglars revealed, the footpath provides just this opportunity:

> "*I would first walk up and down the footpath and have a look at what I could see in the houses. The houses are on a public footpath, no one would give me a second glance if I walked up and down. Even if a tramp walked up and down they wouldn't look out of place. It's a footpath, no-one can question you"* (Participant Six).

Birks and Davies (2017) confirm this curve-linear relationship, their study revealing that moderate reductions in connectivity resulted in increased levels of victimisation, but that at an inflection point of 30% road closures, further reductions in permeability led to overall reductions in crime.

Implementing CPTED in the UK

Consideration for crime prevention within planning policy

Whilst the picture has changed considerably, constructively and less so, regarding the extent to which security has been recognised within planning policy, the current position is encouraging (see Armitage 2018b for a detailed review).One of the key planning policy developments has been the inclusion of security within building regulations, introduced in England in 2015 and Scotland in 2018. Approved Document Q – Security in Dwellings (HM Government, 2015) introduces security standards for new builds that are in line with the physical security requirements of SBD. The regulations states that 'reasonable provision must be made to resist unauthorised access to any dwelling; and any part of a building from which access can be gained to a flat within a building'. The Scottish building regulations go further, specifically referencing SBD as a proven means of meeting the requirements of the regulation.

The National Planning Policy Framework (MHCLG, 2019) includes Sections 8 (Promoting Healthy and Safe Communities) and Section 12 (Achieving Well-Designed Places) that each reference the need to achieve safe and secure design. Whilst this overarching policy guides design principles, the National Model Design Code (MHCLG, 2021) outlines the 'how to', with its Supplementary Guidance Notes providing detailed guidance. Page 31 of the Code states, under 'Public Space: iv) Secured by Design' that all schemes should aim to create a safe and secure environment. It goes on to state that codes may incorporate guidance on the securing of the home in accordance with Part Q of the Building Regulations. The Code's Supplementary Guidance Notes state on page 62 that: "Reducing crime has a significant impact on building strong communities and ensuring the long-term sustainability of a development. The increasing threat of terrorism also needs to be considered in the design of public places". It goes on to asset that: "Neighbourhoods need to be designed to make people feel safe and to reduce the incidence of crime in accordance with the recommendations of Secured by Design…Support advice is available from the police through a network of Designing out Crime Officers (DOCOs). Secured by Design advice incorporates proven crime prevention techniques and measures into the layout and design of places and spaces" (p.62). This is without doubt the boldest indication that crime prevention - in the form of SBD compliance is a considerable element of government policies.

The Secured by Design (SBD) award

SBD is a UK based crime prevention initiative that sets standards, based upon the principles of CPTED, for the design and build of specific environments. Developments meeting these standards are 'awarded' SBD status. SBD sets standards of physical security as well as consideration for crime prevention within the design and layout of developments – thus addressing surveillance, connectivity/through movement, territoriality/defensible space, management and maintenance as well as physical security. SBD represents a security standard - properties that are labelled SBD must meet stringent criteria. However, it also represents a process of close consultation, often involving negotiation and compromise, between police DOCOs, planners, developers and architects, to ensure that a development meets the required standard within a particular context that may include, for example, other local planning constraints and local crime and disorder problems and risks. The standard is prescriptive with regards to physical security (part 2), yet the implementation of design and layout (part 1) is, to some extent, flexible and open to different interpretations and ultimately compromises (Monchuk, 2016; Monchuk *et al,* 2018). The ownership and strategic management of SBD lies with Police Crime Prevention Initiatives (Police CPI) now housed within MOPAC (Mayor's Office

for Policing and Crime, London); yet the implementation, delivery and daily management of the scheme is led by police DOCOs.

To date, the most comprehensive stocktake of the evidence for SBD comes in the form of a systematic review by Armitage, Sidebottom and Tompson (in production). This evidence synthesis scoured the literature on SBD up until January 2021 using a typical search strategy that combined searches of electronic bibliographic databases, forward and backward citation analysis of eligible studies and extensive consultation when searching for grey literature (that which is not published by commercial academic publishers). To be included in the synthesis, studies had to:

1) Cite SBD as the central focus of the research.
2) Relate to the built environment (buildings, parks, estates).
3) Be published after the SBD scheme was initiated in 1989.
4) Use a control area that permitted calculation of an appropriate effect size.
5) Take place in Britain; and
6) be available in English.

Nine studies were deemed eligible for quantitative synthesis using these criteria. In Table 1 the results relating to these nine studies from Armitage *et al.* (in production) are reproduced in odds ratios. Seven of these studies were grey literature, which suggests that evaluations of SBD interventions are not routinely published in academic outlets, a critique of CPTED more generally raised by Armitage and Ekblom (2019) who make a strong call to action in improving the precision, sophistication and credibility of the subject, and enhancing its connections with crime Science more generally. Six of the studies referred to new build developments, with two studies examining the effect of houses retrofitted to adhere to SBD standards, and the final examining both. A range of units of analysis were used, from estates to unitary authority areas, which highlights the heterogeneity across the studies. Just under half of the studies (n=4) were small-scale interventions, with fewer than 1000 houses in the treatment group.

The effect sizes taken from these nine studies all use police recorded burglary data, and the outcomes were measured post-intervention for a treatment and control group. Data representing the most reliable control group (when more than one was reported) are used in these calculations. In Table One, values below 1 indicate a burglary reduction effect in the treatment group, values above 1 indicate a burglary increase effect, and values that straddle 1 indicate no conclusive statistical relationship. We see from Table 1 that only three of the eligible studies (Armitage 2004, Brown 1999 and Ward 2017) show a statistically significant burglary reduction effect at the individual study level.

Table 1: -Odds ratios of effects from primary studies eligible for meta-analysis reproduced from Armitage et al. (in production).

Study	Grey lit?	Effect size	95% CI		Significant?
Armitage (2004)	Yes	-0.69	0.29	0.87	Yes
Armitage (n.d.) – Devon and Cornwall	Yes	-0.72	0.03	7.85	No
Armitage (n.d.) – Hertfordshire	Yes	-0.03	0.25	3.76	No
Armitage and Monchuk (2011)	No	-1.38	0.02	4.10	No
Bone et al. (1994)	Yes	-1.08	0.01	16.47	No

Brown (1999)	Yes	-0.91	0.17	0.97	Yes
Jones et al. (2016)	Yes	0.49	0.91	2.93	No
Teedon et al. (2010)	No	-0.94	0.08	1.81	No
Ward (2017)	Yes	-2.96	0.04	0.24	Yes

As mentioned above, many of these studies have small samples of houses in both the treatment and control groups. From a statistical perspective these studies can be considered to be underpowered. Meta-analysis is an aggregative technique which essentially pools all of these effect sizes, and by increasing the sample size increases the statistical power to detect an effect, if one indeed exists. After the data from each study was converted into odds ratios and associated confidence intervals, meta-analysis was completed in accordance with good practice standards (e.g., taking the natural logarithm of the odds ratios, using inverse weighting, assessing for heterogeneity, using random effect models).

The meta-analytic results of pooling the effects from the above nine studies produced an effect size of 0.47 (95% confidence interval: 0.23-0.95). This means that taken together, the available evidence on SBD show a statistically significant overall burglary reduction effect, equating to 53% fewer burglaries than the non-SBD control group.

These results are positive and bring together a small number of methodologically sound evaluations of this crime reduction intervention. In the interests of transparency, and because of the importance of scrutinising all outcomes, it is worth taking some time to consider the different impacts of what should be a relatively consistent standard. The presentation of negative evaluation results, particularly in an area where the evaluator is viewed as what Matassa and Newburn (2003) refer to as a: '*Product Champion'*, are often viewed with a cynical, hostile and largely defensive response. Unfounded conclusions are made – usually as a defensive response: *'It must be the DOCO's fault', 'it must be the data', 'it must be the evaluator',* when a more constructive response – *'let's investigate why'* should result. Akin to the engineering model discussed in Tilley (2016), failure should be seen as something to be unpicked and built upon, not excused, ignored or hidden. However, we are not inclined to report the bad news. Ekblom (2011) highlights how, on establishing a new column in the Crime Reduction Digest on 'learning from mistakes', in a one-year period they only received one submission, the column being disbanded before it even began. This was not a reflection of the resounding success of all policing initiatives; it was a reaction to the belief that pervades the culture that bad news is not helpful.

Replication

Learning from what works is extremely important and being able to replicate an intervention within a different context – be that geographical or temporal can save time and resources and enhance the likelihood of success. It is important to know what works or does not work, within different contexts, to avoid re-inventing the wheel and wasting precious time and funding. Replication of successful programmes is an effective way of transferring practice knowledge. Crime prevention practice, if not always published, is littered with examples of replication failure – the attempt to replicate a project or intervention that has not produced those prior successful outcomes. Tilley's (1993) presentation of the findings from the Safer Cities Programme (within the UK) discusses examples of replication failure, in particular, the ineffective attempts to replicate the Kirkholt Burglary Prevention Project. Ekblom (2011) also

highlights examples from the Crime Reduction Programme (that followed Safer Cities) where "…*marked successes* [were] *occurring"* (p.11), yet the mainstreaming of these crime reduction programmes that followed (often based upon replication) revealed that: *"Replication of individual success stories was challenging"* (p.11).

'Strict replication' (Tilley, 1993), by its very nature, is not possible with crime reduction programmes. Even if the intervention is rigorously replicated, with high levels of programme integrity, the time, space and individuals will not be the same. Lipsey's (1999) meta-analysis of probation interventions compared 196 'practical' (routine/real-world) programmes with 205 'demonstration' (pilot/experimental) programmes and found that the former was only halve as effective. There are countless examples of individual projects that have produced successful reductions in crime (or whatever outcome is desired), yet this success does not translate when the scheme is rolled out or mainstreamed, largely because of the level of programme integrity that was retained – in knowledge, application, commitment (to name but a few factors).

In the case of the replication of SBD, the difficulties of maintaining programme integrity would appear less challenging – the scheme is based upon compliance with fairly rigid standards/criteria. However, whilst Part 2 (physical security) comes with little flexibility, Part 1 (design and layout) is open to different interpretations (and rightly so), largely based upon context and local constraints. This is no limitation – it is what Ekblom (2011, p.51) refers to as *"intelligent replication".* Replication of the scheme and its theory, mechanism and standards may be less rigid, but the individual/personnel element, in this case, the implementation by 100s of DOCOs, will vary dramatically and replication will be far from Tilley's 'strict'. The variations in interpretation, the compliance with standards, the consideration for and working within local context, the element of compromise, the quality assurance and signing off and the auditing post completion leaves replication less than complete and whilst this is 'intelligent replication' (in theory), in practice it 'could' be a failure to actually deliver SBD in its purest/ideal form – something that would influence evaluation outcomes.

Explaining Replication Failure

Ekblom and Pease (1995) outline the different possible explanations for replication failure. *Measurement failure* – failure of the evaluation to detect a real effect; *theory failure* – the idea or mechanism upon which the intervention is based was unsound, and *implementation failure* – the idea was sound, but was not properly put into practice. Establishing which of these has influenced failure is vital. If an intervention is perceived as ineffective, yet the problem is not the intervention but its implementation or the measurement of its effectiveness, the consequences for future crime reduction are considerable (should it be withdrawn). It is not sufficient to say an intervention worked or did not. To avoid the risk of inaccurately labelling an intervention/product/scheme a 'failure' or (equally damaging), to avoid replicating a scheme within an inappropriate context, we must ascertain what worked, how it worked and why it worked. This is very much the case within the engineering model of evaluation. As Tilley (2016) outlines, failure, as well as success, is unpicked and abstracted from, leading to modifications of product/intervention. Success or failure is not viewed as the end result. Pawson and Tilley's (1997) Realistic Evaluation, and later Johnson, Tilley and Bowers' (2015) EMMIE (Effect, Mediators/Mechanisms, Moderators, Implementation and Costs) have helped to convey this message and convince both academics and, more importantly, practitioners and policy-makers, that going beyond what works to explore what works, in what context and why,

is the key to learning from and successfully replicating crime prevention interventions: *"Without such information, attempts at replication vary considerably in terms of what is actually done"* (Johnson, Tilley and Bowers, 2015, p. 468).

Failure to replicate the previous success of a crime reduction intervention can occur for a variety of reasons. *Implementation failure* is one of the more likely explanations, and as Pease (2010) highlights, this needs to be considered and explored to avoid the inaccurate conclusion that a failure relates to the strength of an intervention when in actual fact the failure lies with its implementation.

How can this apply to SBD?
There are several possible explanations as to why SBD may fail to produce a crime reduction benefit (or a significant reduction), and whilst the scenarios differ, each represents what is fundamentally an *inaccurate measure of SBD***.** An evaluation may have selected SBD properties that have been awarded SBD status and 'signed off' by the local DOCO, yet those properties are not adequately designed or built, specifically in terms of the more nuanced part 1 of SBD. Thus, being labelled SBD, they might fail an external audit. Armitage *et al.* (2010), Armitage (2013), Monchuk (2016), Monchuk *et al,* (2018) have highlighted the issues of competency, consistency, knowledge and application amongst DOCOs. This has been exacerbated by cuts in police budgets, redundancies and re-deployment of police staff into this very specialised role. This scenario is therefore a real possibility. A second explanation, still an *inaccurate measure of SBD,* might involve a developer having no requirement, incentive or desire to build to SBD, yet being aware of the general principles of good quality design, building to what constitutes SBD, but not applying for SBD status. In an evaluation that included these properties, you would have control developments, defined as Non-SBD, that, in all but the name, met the SBD standards. Again, this would negatively affect evaluation results – the control performing as well as the SBD sites. There is no indication that less than positive results indicate a failure of the theory or concept of SBD as a CPTED intervention.

A concluding word on re-orienting the focus

CPTED, as a burglary prevention measure, is receiving increasing recognition as an effective tool and as a necessity in achieving good design, and as Armitage and Ekblom (2019) suggest: *"who wouldn't want to grab the baton and run"* (p.246). There is a temptation to leave CPTED alone, it is gaining recognition in planning policy and practice and rigorous reviews show positive effects. Yet, it feels apt to use this conclusion to at least propose a refocus (not a re-write) to reconsider some of the fundamental theories of crime prevention and to build on recent research.

Research conducted with those convicted of a high number of burglary offences and currently incarcerated within four prisons in the north of England confirmed, and to some extent refuted, the existing principles and implementation of CPTED (as discussed earlier in the chapter). However, it also revealed another element of the design of housing that impacted offender decision making, and this relates specifically to the emotions evoked by images of houses that were interpreted as being occupied by: the elderly, those with a disability, those on low income/benefits, those with children, or images that participants associated with where they/their families grew up or currently resided. Whilst there is always a risk that offender-based research involves some element of false morality – the participant responding in what

they consider to be a morally appropriate way, the consistency of responses across all 22 prolific burglars would suggest that the responses are worth further consideration. Before exploring the theoretical and practical implications of these findings, below are some examples of responses given by participants when asked to describe their reaction to a series of images of residential housing.

When shown two separate images of bungalows, almost all (21 and 20 of the 22) participants stated that they would not burgle those properties. The explanations for these decisions almost exclusively involved the morality of burgling a home resided in by the elderly, and how this would make *them* feel, or how *others* would see them. The extracts below show examples of how participants referred to their morals when making their decisions regarding target selection:

> *'It looks a bit like an old people's complex to me, so I wouldn't burgle there. I've done houses before where I've got in and it's smelled liked old people, so I've left straight away – it's a moral decision. Your low life might do old people?!* (Offender 20).

> '*This is blatantly old people's housing and I would not burgle there. A lot of people would and if I look back, a lot of people I mixed with would and they would even target old people. I would never as my mum brought me up to have pride and morals'* (Offender 4).

Participants regularly referenced a family member, usually their mother or grandma in explaining their response to the image, suggesting that the property evoked an emotional reaction that would influence their decision making:

> *'They're tidy, but they're old people bungalows – I don't target old people, it's not right. They've got stuff, but I wouldn't want it to happen to my Nana and she lives in a bungalow'* (Offender 17).

The responses regularly described how this target selection would be viewed by others, and what impact this would have on them, either in prison, or within their community if they went ahead.

> *'No, it's old people's homes. In prison you know if people have targeted old people and these people should be on a wing with the nonces'* (Offender 7).

> *'It's old people's homes so no. When you go to prison people would know you had targeted an old person's house and you would be scum. I could get in easily but this is a moral judgement'* (Offender 6).

In a similar pattern to the descriptions of the elderly, participants also spoke of the how *others* might burgle properties that they felt were designed for those with disabilities, *they* would not.

> 'I wouldn't entertain this these are disability houses and disability cars. There

are burglars who target vulnerable people but I'm not like that' (Offender 12).

Similar, consistent responses were given to images of properties that were perceived to be social housing, with explanations for those responses following two themes – the residents have very little and it would be morally wrong to take the little that they have; or the image reminds them of their own community/where they grew up and to target *your own* would feel wrong.

> *'I feel bad about burgling anyway, it's a dirty crime, so I wouldn't want to steal from people on benefits'* (Offender 7).

> *'I'd probably stay away from here, it's the kind of area that I grew up in. You don't steal from people who've got fuck all in the first place'* (offender 10).

One particularly interesting element of these responses is the regularity with which participants deflect to *others;* there are those that would and those that would not, and that they form part of the latter group. We know that social housing, and/or properties in low socio-economic status areas experience higher levels of burglary, so somebody does not have the same morals. And yes, this could lead us to deduce that these responses are worth little serious consideration. However, regard for evidence is a fundamental element of evidence-based policy. SBD's own guidance stating that: "*The police service continually re-evaluates the effectiveness of Secured by Design and responds to emerging crime trends and independent research"* (PCPI, 2019, p.2). And thus, an element of re-consideration could be warranted. The narratives could be false, however, there could also be some truth within them, and as such, potential burglars *may* feel an attachment to certain properties, based upon visual cues that create an emotional response that affects their decision making. Be that based on morality, reminders of family/their own community, or a rational decision that there is no need to target the vulnerable when other targets are available.

As discussed earlier in the chapter, CPTED is very much founded on the Opportunity Theories that emphasise the role of place (albeit alongside other elements) in target selection. In this context, consideration for a version of CPTED that includes designing to prompt a moral attachment might draw upon Social Action Theory (Wikström, 2004 and 2010; Wikström *et al,* 2012) that (in its simplest terms) explains crime as an interaction between individual (with propensity to commit crime), setting (with criminogenic features) and self-control (the ability to align behaviour with moral values when faced with pressures/inducements to choose a course of action). In the case of our images of properties, we have a set of 22 prolific offenders, whose burglary history is validated by their incarceration for specific offences (individual) and we have a series of properties that, according to CPTED theory, crime statistics and prior research, have many design features that would leave them vulnerable to burglary (setting).

Wikström, Mann and Hardie (2018) explain how 'situation' is not simply the setting, in the place-based sense, but a particular 'perception of action alternatives'; Situation Action Theory proposing that '*only the part of the environment ('the setting' that a person experiences with his or her senses can influence his or her perception of action alternatives and choices'* (Wikström, Mann and Hardie, 2018, p.16). In this sense, it is not just the individual, or the environment that is vulnerable to crime, but the combination *and* (crucially) that individual's

interpretation of that setting. Willcocks *et al* (2019) turn their focus to a possible third generation CPTED that considers: '*how positive, pro-social 'opportunities' can be considered with at least equal weighting to the mitigation of crime 'risks' in built* environments' (p.217), second generation having evolved to consider the importance of community participation in creating safer communities (Saville and Cleveland, 2008; Atlas, 2008). Wilcocks *et al*'s interpretation and adaptation to take in the 'pro-social' very much focusing on the encouragement of vibrancy, the promotion of street activity and, in turn, the enhancement of local confidence. The promotion of the pro-social in this sense being focused upon a change in behaviour and perceptions amongst legitimate users of space, as opposed to the proposed focus upon promoting or evoking pro-social responses to places amongst those with illegitimate intentions. Why the focus has remained so intently upon *designing out crime* as opposed to *designing in the pro-social* remains unclear, but to exclude this potential development from future CPTED iterations would seem regressive. A Crime Prevention through Pro-Social Design (CPTPSD) model would build upon the many existing crime-prevention approaches, (for example Roach *et al*'s 2020 'nudging down crime') alongside the theoretical recognition that individual interpretations/affordances play a key role in the interplay between environment and offender. We need to re-focus this intervention to encompass consideration for the pro-social 'pulls' as well as the focus on design that deters, each play a key role in influencing offender decision making.

Recommended readings

Tseloni et al (2018b) provides an excellent summary of levels, patterns and preventative approaches to domestic/residential burglary and is a great place in reviewing the current literature around this subject, and it is worth reading the series of papers on the effectiveness of security and particularly the association with the burglary drop, including Farrell *et* al (2011), Tseloni *et al* (2014), Tseloni *et al,* (2017a) and (2017b).For a more detailed review of CPTED, Armitage and Ekblom (2019) present a series of contemporary considerations of this crime prevention approach and assess strengths, limitations and areas for improvement.

The most accessible readings on the concept of designing out crime within residential housing include Poyner (1983), Poyner and Webb (1991) and Newman (1973). For a summary of these, including a detailed review of the history and implementation of CPTED within housing, see Armitage (2013).

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