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PAUSED for Thought? Using Verbal Protocol Analysis to Understand the Situational and Temporal Cues in the Decision-Making of Residential Burglars

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Abstract

Using verbal protocol analysis (VPA) alongside semi-structured interviews, this research aimed to explicate the situational dynamics that inform the decision-making and target selection of residential burglars. Focusing on the VPA method, novel to criminological research, the paper considers the contribution of this empirical approach for studying the decision-making of offenders *in situ*. The findings reveal a series of cues, encapsulated in the 'PAUSED' model, that are drawn upon by residential burglars to assess the suitability of a target; determining whether it is profitable, accessible, uninterrupted, surveillable, escapable and/or dishonourable. The PAUSED model is unpacked to articulate a collection of visual stimuli that serve to disrupt and suspend the otherwise rapid flow of target appraisal. Discussion of the strengths and limitations of the VPA method, and how it can compliment other approaches to understanding the decision making of residential burglars, is provided.

Keywords: residential burglary, decision-making, verbal protocol analysis, expertise, qualitative methods

If headway is ever to be made in dealing with crime, we must access the information that offenders have (Feeney, 1986: 68).

Just as an architect looking at a house notes its functional, technological, and aesthetic qualities, burglars perceive it in terms of its vulnerability to break-in and potential for gain (Cromwell, 1991a: 291).

Introduction

Recognition that offender expertise is ‘of crucial importance to the formulation of both theory and policy’ (Wright and Decker, 1994: 3) underpins the present study. Reporting findings on a pilot verbal protocol analysis (VPA) at burglary hotspots with two convicted burglars, as part of a broader study, this article reveals the cognitive thought processes of experienced offenders. The purpose of the approach reported here, was to test the capacity of the VPA method to provide in situ detailed accounts of experienced criminal decision-making in a naturalistic setting. Particular attention is paid to the shifting factors in the immediate environment (physical, spatial and social) that shape the decision to burgle.

The desire to understand residential burglary from the perspective of offenders has seen multiple methodologies employed including ethnographic approaches (Cromwell et al, 1991a), interview-based research (Bennett and Wright, 1984; Chun and Lee, 2013; Hearnden and Magill, 2004), studies that have utilised photographs of potential targets, virtual reality and mock burglaries in both real and simulated houses (Nee et al., 2015; van Gelder et al, 2016), as well as a range of quantitative studies (Palmer, Holmes and Hollin, 2002; Rengert and Chasilwick, 1985), including those that study the spatiotemporal clustering of crime such as hotspot mapping (Bernasco and Nieuwbeerta, 2005; Chainey and Ratcliffe, 2005).

However, despite the corpus of studies, very few have engaged offenders in the free world and in real, unconstructed, settings. An overview of these studies and the findings they elicited are first articulated before providing an outline of the methodology that is the key focus of this paper: verbal protocol analysis. The findings are then presented, illustrated with verbatim quotes from participants, organised by each of the elements of the acronym PAUSED. The findings are followed by a discussion which reviews the utility of the VPA methodology and reflects upon the future of offender based research with residential burglars.

The contribution of this paper is threefold. First, it explores the utility of an innovative qualitative methodology with residential burglars to assist in gaining insight into this crime

type from an offender's perspective. Second, although only conducted with two participants, it adds to the literature by examining the crucial moments of decision-making that precede a burglary taking place. The narratives, or protocols, provided by the offenders reveal that these experienced burglars are optimistic in their target appraisal until a visual cue informs them otherwise, signalling the need to discount it. This appraisal process occurs rapidly, as has been found in other studies (Nee and Meenaghan, 2006; Snook et al., 2011). Drawing upon these findings in conjunction with those from the broader study (Taylor, 2010; 2014; 2016), and wider literature, the article advances a classification of decision making – the PAUSED model - that articulates the factors of target appraisal that suspend, either momentarily or permanently, the decision to burgle a property.

Background: residential burglary and research methodologies

Based on prior research with residential burglars there is general consensus that target appraisal is often discriminating and skilful. Several studies have revealed that offenders read 'clues' from the environment pertaining to opportunity, risk and rewards (Cromwell et al, 1991a; Wright and Decker 1994; Palmer et al., 2002; Hearnden and Magill, 2004) that assist them with ascertaining which target to choose. Prolific offenders, in particular, it has been suggested, develop cognitive scripts based on their experience of prior success (Nee and Meenaghan, 2006) that anchor their decision-making. Importantly, this does not involve the lengthy weighing up of the pros and cons of each potential target, but rather it relies on speedy 'rules of thumb' (Nee and Meenaghan, 2006; Snook et al., 2011) or 'take the best' heuristic strategies (Garcia-Retamero and Dhami, 2009).

Research with residential burglars has taken a number of different approaches, both qualitative and quantitative, including interviews in a range of settings, mock burglaries in real and simulated houses, ethnographic studies with active burglars, and a corpus of studies that have utilised quantitative methods to examine target selection. In order to locate the contribution of VPA to the arsenal of methodological tools for the study of residential burglary, an overview of previous studies and the debate that their methods have prompted is first provided below, before expounding upon the methodological approach in greater detail.

Despite Sutherland and Cressey's (1970: 68) assertion that offenders 'must be studied in their everyday life outside of institutions if they are to be understood', most research engaging residential burglars has been conducted in artificial settings and furthermore, many have taken place in criminal justice facilities including probation offices and prisons (Bennett and Wright, 1984; Chun and Lee, 2013; Hearnden and Magill, 2004). There are a few notable exceptions whereby burglary offenders have been studied outside of criminal justice settings. For example, Cromwell et al (1991a) recruited 30 active burglars in Texas by snowball sampling from informants introduced to the researchers by police. Their methodology consisted of a series of interviews as well as 'ride alongs' during which participants were requested to reconstruct burglaries they had previously committed as well as evaluate sites that had been targeted by other participants in the study.

More recently, and in a bid to counter the trend for research in criminal justice settings, Nee et al. (2015: 507) devised novel observational methods in their exploratory study to try and get 'closer to empirically observing actual offending behaviour in relevant criminogenic contexts'. Hypothesising that experienced burglars would have superior expertise, they observed the behaviour of ex-burglars ('experts') and students ('novices') as they undertook a mock burglary in a real house and in a computer-simulated house. They fitted participants with a head-mounted camera to record the 'burglary' and then requested that participants 'talk through' their approach when reviewing the footage. Of particular interest to this paper, they found that the observational methods strongly supported previous interview and experimental data regarding expertise in offenders when compared with novices.

Studies that have compared the findings from samples with 'free' and incarcerated offenders have revealed consistency in the information provided (cf. Nee and Taylor, 2000; Nee, 2003). Similarly, Copes and Hochstetler (2010) refute the claim that prison-based interviews are less valid or reliable than studies with offenders in the free world, arguing that there is 'no empirical evidence that active offenders reveal different aspects about their lives and crimes than do incarcerated ones' (2010: 50). Indeed offenders interviewed in prison might well still consider themselves to be 'active' and simply on an imposed break from their career - a career that they fully intend to continue upon release.

There is of course merit in these studies, and they do provide a much-needed perspective from burglars as 'experts'. However, as they are simulated, they are unable to gain access to the ever-shifting change in situational dynamics that real life affords. Garcia-Retamero and

Dhimi (2009) claim that ‘studying participants under unrepresentative conditions may distort their typical behavior’, which could produce findings lacking in external validity (Dhimi, Hertwig and Hoffrage, 2004). In all likelihood, the utility of different methodologies is somewhat contingent on the information sought. Offender characteristics, motivation and background may remain fairly static and are therefore largely consistent irrespective of where the interview takes place, but accessing information on *modus operandi* and target appraisal, for example, might be more problematic in an artificial setting than in situ. Asking an offender about an offence, whether one they have committed or hypothetical, in an artificial setting is unlikely to reveal the nuanced responses to shifting stimuli in the real world, but rather elicit rationalisations that ‘make sense’ after the event. As identified by Nee et al. (2015: 507) reconstructed and ‘relatively unrealistic contextual cues fall short of observing actual behaviour’. Supporting this assertion, in Cromwell et al’s (1991a) study with free and active offenders they found that after-the-fact reconstructions of the event prompted accounts that appeared to be rational and well thought out, but site visits and interviews revealed that they were often spontaneous and disorganized. This highlights the need for a multi-method approach to assist with triangulating and verifying responses.

Taking inspiration from both the US ethnomethodological studies, and the earlier UK research, the present study aimed to incorporate multiple methods to examine decision-making both in situ and after the fact. Using VPA for the first time with residential burglars, the study pioneers a new qualitative approach to gain insight into the decision-making of offenders.

Methodology

Following the advice that using ‘a variety of methods is most likely to capture the complexity of criminal thoughts’ (Weaver and Carroll, 1985: 35), the study used a range of approaches to gain insight into residential burglary from the perspective of recently active burglars in ‘Northern City’, England. Offence data for 17,849 incidents of burglary between June 2009 and May 2010 was analysed to understand spatiotemporal patterns, items stolen, method of entry and tools used, victim characteristics, and so on. In addition, charge data for 6,288 offenders linked to these incidents was analysed in order to build a profile of age, offence history, and distance travelled from home address to burglary target. Bringing context to the recorded data, semi-structured interviews were conducted with a representative sample of 30 convicted burglars; fifteen of the interviews took place in the community (13 at probation

offices and two at probation-managed ‘approved premises’) and fifteen interviews took place with incarcerated offenders in two different prisons. These findings have been published in a series of reports and journal papers (Taylor, 2010; 2014; 2016). This paper focuses on the findings from VPA which was conducted with two of the convicted burglars to trial the utility of this novel approach.

Verbal Protocol Analysis

VPA is a method for collecting and analysing thought sequences that involve recording participant’s verbalization while they are actively engaged in a task. It has emerged as one of the principal methods for studying thinking in cognitive psychology (Crutcher 1994), cognitive science (Simon and Kaplan, 1989), and behavioural analysis (Austin and Delaney 1998). It has been applied to work performance and expertise (e.g. Bainbridge and Sanderson, 1999), measuring intuition (e.g. Baldacchino et al, 2014) and comparing novices and experts when navigating virtual environments (e.g. Trickett and Trafton, 2009).

As a methodology that is designed to ‘understand in detail the mechanisms and internal structure of cognitive processes’ (Ericsson and Simon, 1993: 1), it is curious that it has not found further traction in criminological research. There are only a handful of studies that have adopted this approach to study criminal behaviour, and all focus on retail theft. In a seminal study conducted by Weaver and Carroll (1985: 1) ‘subjects individually walked through retail stores with instructions to “think aloud”.’ Analysis of the verbal protocols revealed that ‘shoplifters were more strategic, efficient and schematic than nonshoplifters’ in their approach and considerations. They concluded that ‘the verbal protocol procedure seems a valuable tool for the study of criminal thought processes, deterrence, and decision making in unstructured, visually rich, and realistic situations’ (Weaver and Carroll, 1985: 35).

Similarly focusing on shoplifting, Carmel-Gilfilen (2011) largely replicated Weaver and Carroll’s methodology and also found significant differences between expert and novice shoplifters. More recently, a similar approach was utilised by Jacques, Lasky and Fisher (2015) who fitted eye-tracking devices to active shoplifters but rather than verbalising thought processes in situ, participants completed retrospective protocols whilst watching the footage.

Bainbridge and Sanderson (1995: 174) assert that ‘there is no one accepted way of performing verbal protocol analysis – no ‘canon’ – and researchers must adapt existing methods to new situations, and maybe even develop new methods of their own’. When

undertaking VPA, participants ‘vocalize what is going through their minds as they are solving a problem or performing a task’ (Gass and Mackey, 2000: 13), but more than simply just ‘thinking out loud’, VPA focuses directly on the sequence of cognitive events that occur between information stimuli (in this case residential properties) and the decision outcome (is the property a viable target?). Verbalised thoughts are typically audio-recorded, sometimes video recorded, and transcribed, broken into a sequence of task-relevant statements (protocol segments), and content analyzed using a coding scheme (see Pallab and Mukhopadhyaym, 2004; Trickett and Trafton, 2009 for guides on the VPA method).

Concurrent protocols, whereby participants verbalise thoughts whilst completing the task, rather than retrospectively, are considered to be preferable since there is less risk that they will be influenced by unwanted variables such as recall bias (Baldacchino et al., 2014; Trickett and Trafton, 2009). The capture of ‘live’ situational data can illuminate the information and cues that individuals ‘are attending to while performing their tasks, and by revealing this information, can provide an orderly picture of the exact way in which the tasks are being performed: the strategies employed, the inferences drawn from information’ (Ericsson and Simon, 1993: 222). The use of protocols with burglars revealed that decision-making was fluid, dynamic and responsive to changes in the environment such as shifting occupancy cues, changes in weather and the availability of tools at the location. This would suggest that evolving and shifting situational factors are influential in decision-making, and are likely often missed in post-hoc rationalizations.

Two offenders, referred here by the pseudonyms ‘Ryan’ and ‘Trevor’ were selected from a larger sample of participants to take part in the VPA. The author accompanied them to a burglary hotspot, a different one each, identified from police data, and asked them to go about a typical process of target selection. The participants were affixed with a small lapel microphone linked to an audio recording device that was secreted upon their person. The idea was that the participant would be describing the visual cues and cognitive thought processes in response to stimuli but appear as though they were talking to the researcher walking alongside them, thus not drawing any unnecessary attention.

The purpose of the concurrent protocol analysis was to understand the environmental stimuli that the offender derives from the environment as part of their target appraisal. For example, it might be that the offender notes open windows, high value goods on display, unopened

post on a doormat or drawn curtains signifying lack of occupancy. In contrast, there will be characteristics of the environment that deter the offender, such as a parked car on the driveway. The protocols provided a recorded verbal stream that essentially is a “dump” of the contents of cognitive functioning at the time of task completion (Ericsson and Simon, 1993). As Trickett and Trafton (2009: 332) claim, the verbal stream can ‘be taken as a reflection of the cognitive processes in use and, after analysis, provides the researcher with valuable information.’

Participants

The expertise and professional judgement of probation staff was drawn upon to assist in selecting suitable candidates to participate in the site visits. It was essential to ensure that participants had a good record of compliance (both were under community supervision orders). Trevor was age 42 at the time of the study and had been committing burglaries since he was 16. He had been convicted of many property offences, including shoplifting and handling stolen goods but reported his ‘main crime was burglary’. He was classified as a ‘prolific and priority offender’ (PPO) and claimed, at times, he’d commit burglaries at a rate of ‘3 or 4 a day’. The main motivation for his offences was to fund a heroin habit, but he also confessed that committing crime became an addiction in itself:

I got to a point where I had money in my pocket and have drugs and would be walking down the street and I would see a house, I wouldn’t want anything but I would still go over and burgle the house. I don’t know why I did it, just a really bad habit. I got a buzz from doing it, I was addicted to it.

He estimated he’d probably committed in the region of 700 burglaries, the rate and regularity only tempered by long spells in prison, including a recent sentence of six years custody. Professing that most of his burglaries were ‘spur of the moment’ and resulting from what Shover (1971) described as an ‘alert optimism’, rather than pre-planned, Trevor exemplifies the opportunist burglar, and no location was off-limits:

I’ve done a lot of council houses, posh houses and I’ve done some grimy houses [...] I’ve walked miles and miles and miles sometimes. I used to get a car and drive about but in a car you do tend to miss a lot. I prefer to be on foot [...]

In contrast to the proliferation of opportunistic and frequent burglaries committed by Trevor, Ryan considered himself to be a more discerning thief, and indeed was eager to differentiate himself from the ‘smack heads’ that he claimed targeted council estates and student areas. He was 21 at the time of interview and had committed his first burglary at the age of 18. He described once having a promising sporting career that resulted in him ‘going about with different sorts of people’ because all of his friends would be working during the day. He began taking cocaine recreationally and a failed drugs test at the age of 17 signalled the end of his sporting endeavours. Ryan began burgling houses for money to facilitate living a ‘celebrity life’. He estimated he’d committed in the region of 20-30 burglaries and only targeted ‘posh areas’, spending time researching his targets, and interestingly focusing on a specific location that was known to have famous sports personalities residing there. It appeared that Ryan had become seduced by the prospect of living what he described as the ‘high life’ but the failure of his sporting career had left him with a taste, but no longer the legitimate means to reach it. Reflecting upon his motivations for burglary he stated:

Really it’s all for a party life, [...] stay in different hotels every night of the week. It’s a celebrity life, that’s what it feels like when you are doing it [...] I wanted money.

Trevor and Ryan were selected following the semi-structured interview in which both described being committed to living a crime-free life, and after careful discussion with their offender managers with regards to their suitability. They represent different types of burglars – Trevor, a PPO and intravenous drug-user had been extremely prolific over the course of his lengthy criminal career which primarily funded his drug addiction, whereas Ryan, was a young recreational cocaine user driven by the quest for a hedonic cash-fuelled lifestyle. Although relatively inexperienced, Ryan considered himself to be skilled and discerning, alluding to high end and sophisticated burglary targets.

Site Visits to Burglary Hotspots

As much research has shown, burglars are typically driven primarily by material profits (Bennett and Wright, 1984; Rengert and Wasilchick, 1985; Taylor, 2014) and so affluent areas, or ones that are likely to offer an acceptable level of anticipated rewards are likely to be preferred by burglars. The first location was chosen based on its relative affluence, ‘Affluent Area’, which matched Ryan’s target profile, as he articulated – ‘smack heads wouldn’t come round here, they do council estates, but the lads on cocaine would come here’.

The site visit took place on a sunny afternoon in May. The location was a leafy suburb characterised by large detached houses with large gardens, although some terraced and semi-detached, and was a well-known burglary hotspot. The houses were relatively large and there were clear indications of wealth. The second area, also a long-standing and well-established burglary hotspot, had a high-density university student population. It will be referred to as 'Student City Suburb'. There were ample low risk / low reward opportunities which fitted Trevor's profile well – 'where there's muck, there's money as they say' was his outlook. The visit took place on a rainy weekday morning in June. The houses were predominantly terrace housing with backyards opening out onto alleyways, many of which had alley-gates. The upkeep of the housing in this location was generally poor. There was a park in close proximity, flanking one side of the housing, and a busy main road on the other. There was a large complex of student halls of residence nearby.

Analysis

The protocols were fully transcribed and provided detailed accounts of how burglars 'read' an area and the opportunities it presents. Drawing upon prior literature on residential burglary, Hayes' (2000) model of theory-led thematic analysis was utilized to analyse the interviews and VPAs. The approach involves identifying key themes from the literature and allowing these to inform, but not prescribe, the analysis. The coding process is both inductive and deductive. The analysis revealed that the participants started with a perception that every property was a potential target, until it returned a negative response to discount it. In other words, the burglar starts from the view of 'I'm going to burgle that house', and then speedily assesses if there are any reasons why they shouldn't. The reasons offered as to why a house would be discounted were categorised into six different attributes: lack of rewards (is it 'Profitable?'), difficulty gaining entry due to security mechanisms (is it 'Accessible?'), likelihood of being disturbed (is it 'uninterruptible?'), likelihood of being seen (is it 'Surveillable?'), ease of getaway (is it 'escapable?'), and, moral apprehensions with the target (is it 'dishonourable?').

It is important to note that because the location was selected by the research team in consultation with the police, proximity to offenders home is not included in the model, although it has been found to be influential on target selection (Chamberlain and Boggess, 2006; Townsley et al, 2015). In the present study, mapping the distance from offender home to burglary location revealed both inter and intra offending, with some burglars traveling

considerable distances within Northern City to commit their offences (as Trevor stated would sometimes be the case) (see Taylor, 2010). However, the findings from the VPA relate to the target selection of houses once the initial location has been determined. In sharp contrast to after the event recollections that have thus far dominated the field, the VPA method highlights how criminal opportunity evolves, subsides and transforms in response to shifts in temporal and situational dynamics.

Findings

Demonstrating the rapidity of target appraisal, offenders estimated that the suitability of a property could be determined in a matter of seconds; some even suggested that it was ‘instant’. Two houses identified by Ryan on the site visit to ‘Affluent Area’, demonstrate the speed with which an experienced burglar can summate a cache of cues to reach a firm decision about the desirability of a target. The houses were in the same street, and arguably barely distinguishable by the novice upon first inspection, but instantaneously appraised by the experienced burglar. One property was identified as an ‘ideal’ burglary target (Figure 1.), prompting Ryan to immediately declare ‘I’d do that one there. Look at that one there now it’s a perfect one ... that is ideal for a burglar’. On the other hand, a seemingly identical house was immediately rejected by Ryan, who exclaimed that he ‘wouldn’t touch it’ (Figure 2.).



Fig. 1. Ideal burglary target



Fig. 2. Undesirable burglary target

The cues read by Ryan in these two properties provide a useful starting point to begin to unravel the in situ cognitive processing of residential burglars. ‘Affluent Area’ provided numerous signifiers that there were ample rewards on offer, which was of particular

importance to Ryan (discussed in greater detail below), and it was assumed that both properties, indeed the entire area, would be profitable: 'This is why burglars come to 'Affluent Area' - this is where the money is'. However, a key determinant in target selection, and a crucial differentiator between the two houses, was whether there was a car parked on the driveway to the house under consideration. Ryan used this cue as an initial indicator that the house in Figure 1. was unoccupied. His reasoning being, that in this location, all the residents would own cars since the area was relatively wealthy and had poor transport links. The key reasons for rejecting the house in Figure 2. was 'because there are cars on the drive' and an window open, which indicated to Ryan there was at least one person inside.

The assessment of suitability based on occupancy was clearly dynamic and responded to changes in the environment. As Ryan articulated in response to a car leaving the driveway of a house in the same vicinity; 'See? There is a woman just pulling off the drive so now I know she is out, and just seeing her go, you know she is not back anytime soon', thus transforming a previously discounted target into an opportunity. Having ruled out the house in Figure 2 immediately due to failing Ryan's occupancy assessment, the other house, in contrast, returned a multitude of positive cues that were rapidly reeled off. There was no burglar alarm and an unfenced gap between the front door and the garage allowing easy access to the rear of the house, as Ryan described: 'Looking at that one there [Figure 1] it is ideal. There is no alarm on the house and you can just walk round the back'. Furthermore, the garage and protruding front door limited surveillance from the street. The house backed onto a field and so this provided, according to Ryan, a perfect escape route.

It was found that a burglar's progress from target appraisal to decision to offend is incredibly rapid if a predefined set of cues is satisfied. Offenders will only be 'PAUSED for thought' if there are doubts regarding any of the cache of cues, comprised of whether the target is: Profitable, Accessible, Uninterruptable, Surveillable, Escapable and/or Dishonourable. Drawing upon this brief overview of Ryan's assessment of the two houses, as well as Trevor's VPA, alongside the interview data, the components of the 'PAUSED model' of burglary targets are expounded below. In contrast to previous studies that focus on the positive stimuli that offenders search for, the approach found here starts from the premise that burglars are interminably optimistic, perceiving every property as an opportunity, until it returns a negative response to discount it. In other words, the burglar starts from the view of

‘I’m going to burgle that house’, and then speedily reviews if there are any reasons why they should not.

PAUSED for Thought? The Situational Considerations of Residential Burglars

The site visits revealed that target appraisal is comprised of a complex of discrete and vital considerations. If any of these triggered doubt or concern, it would result in a lengthier appraisal as the burglar investigated further for additional signs or assurances, or result in the rejection of the target. In other words, if a burglar registered a concern under one of these criteria, they would be ‘PAUSED for thought’ and seek further information, as outlined in Table 1.

[Table 1. About here]

Profitable

Supporting findings from earlier studies (Bennett and Wright, 1984; Hearnden and Magill, 2004; Nee and Meenaghan, 2006), the burglars in the present study highlighted that one of the most significant cues in the decision to burgle a particular property is the belief that there are goods inside worth taking. Of particular importance to Ryan, was visual confirmation that there was ‘fancy stuff’ on offer, indicating a potentially lucrative haul:

If you have a nice house it means you wear nice clothes, have nice things, have a nice car, nice jewellery. If a house is nice then you will do it because you will get something out of it. Scruffy houses, they couldn’t give a shit, what are you going to get out of there? They have laptops but it’s not enough, not worth doing two years for £200. You want a house that’s got at least 3 or 4 plasmas [television sets].

Trevor was, likewise, motivated by the perception that there were valuables on offer, although admittedly his threshold of profitability was lower than Ryan’s. Using a ‘student house to let’ sign as an indicator of the residents’ likely assets, Trevor was drawn to the quantity of sellable goods:

See that sign there “student house to let”? Well, what it lets you know is that a few students are going to live there. You know during the day if you get in there you will

have three or four rooms full of goodies', and later in the site visit, 'Look there! Another big sign, "student accommodation, come and burgle me"'.

Accessible

Modus operandi to a large extent determines the features of a property that render it 'accessible' to burglars. For example, to a 'sneak burglar' an open window or door left ajar would constitute accessibility, whereas poor quality patio doors or wooden window frames signal accessibility to an offender willing to use force to gain entry. Trevor remarked in response to seeing a house with sash windows in a state of disrepair:

Look at the windows there they're old. I could just find a garden tool and open that window right now if I wanted to. I'd go for the bottom one. Look how old the windows are. They have bars on but they will just push off. They are only held on with a couple of screws.

Furthermore, Trevor outlined how accessibility could be fulfilled through optimistic perseverance: 'say I'm walking down here at 2am in the morning, every PVC door I would try it. Like that there, I would try it. The amount of people that leave their doors open is unreal'. In this way, there is nothing specific in Trevor's target appraisal regarding accessibility, just the luck of eventually happening across an unlocked door. Whereas for other burglars looking for a more discerning haul, a more forceful approach would be acceptable in order to create access. As Ryan explained:

No one comes up here [Affluent Area] to do sneaks, you need the house to be empty and then you can go through it. I would just smash the patio windows with a brick and get in. That's what I would do but everyone is different. Some people who just go out at night and do sneaks they just go and try everyone's patio doors'.

Perhaps one of the clearest indicators that burglary develops in response to the particular situational dynamics and shifting opportunities were the findings regarding the use of tools to assist with accessibility. Burglars identified screwdrivers, crowbars and spades as particularly suitable tools for burglary but most asserted that they didn't have a specific tool that they would use. Instead, they would scan the surrounding area for a suitable object. One of the

main reasons for using items such as bricks or tools on site was to avoid being apprehended and charged with 'going equipped' as asserted by Trevor:

When I go out of a nighttime I don't take tools with me. I can easily find a tool in someone's back yard because they always leave sheds open and stuff round the garden. Why risk 'going equipped' when stuff is just lying around? They need to secure their tools and put everything away.

Although offenders may well have a general offence script that determines target characteristics such as location, house type, time of day, etcetera, an appreciable component of the burglary is impossible to determine until an offender is on site and responding to the multiple nuances that a specific target presents. The need for on site flexibility, creativity and responsiveness to shifting stimuli is an important finding. Amongst other things, it calls into question the validity of behavioural 'crime linkage', which is underpinned by the consistency hypothesis (offenders will behave largely consistently when executing offences) and the specificity hypothesis (offenders can be differentiated on the basis of their offence behavior, displaying a 'signature style') (Bouhana et al, 2014).

Uninterruptable

Burglars do not want to be disturbed, and as such, the perceived occupancy of a property is a key-determining factor in the decision to target a property (see, for example, Bennett and Wright, 1984; Rengert and Wasilchick, 1989; Snook et al., 2011). The majority (93%) of Cromwell et al.'s (1991a) sample reported that they would never purposely enter an occupied property, and 76% of Nee and Meenaghan's (2006) cohort preferred the property to be unoccupied at the time of the offence. As outlined above in Ryan's appraisal, cars play a key role in determining occupancy:

The main thing is cars on the drive, if there is a car on the drive there is no point in doing it when there is another house three doors down with no car on the drive.

Similarly, previous studies (Bennett and Wright, 1984; Snook et al., 2011) have found that cars are one of the most important cues in burglars' decision making, but importantly was also the most 'ecologically valid or predictive of actual occupancy' (Snook et al., 2011: 316). However, in addition, burglars draw upon a suite of occupancy checks to further confirm

occupancy, using a range of techniques (Bennett and Wright, 1984; Nee and Meenaghan, 2006; Snook et al., 2011). A common approach described by offenders in the present study would be to knock on the front door of the property and wait to see if someone answered. If so, the offender would ask directions to a location nearby, or ask for a person using a common name, for example, 'is Tony home?'. The prospective burglar would then apologise and leave. Despite Ryan claiming 'I know looking at a house whether someone is in or not', he described how he'd perform occupancy checks by collecting leaflets from the local takeaway and giving them to residents if they answered the door:

Sometimes I'd knock on [the front door] - I'd have grabbed a load of leaflets out of the Chinese [fast food store] and if they answer I would give them one [a leaflet], and if they didn't answer you would know no one was in.

Following these occupancy tests, if there was no response at the door, the burglar could progress to entering the property, although it was recognized by Ryan that this approach could heighten the risk:

You are taking a big chance because if [...] someone answers and then there is a burglary nearby, the police knock on all the other doors and ask have they seen anything suspicious. They say 'oh yes I've seen this man' [...] The police have all the known burglar's faces and they can just point him out. It's a bit risky but a lot of people do that [occupancy tests] who don't like going into houses when people are in.

However, confirming Ryan's assertion, Snook et al. (2011) report that burglars can predict occupancy 'beyond chance levels', thereby limiting risk. In this respect the occupancy check becomes a final confirmation once all other visual cues have indicated a vacant property. There were numerous other visual cues used to quickly determine occupancy; looking to see if lights were on, unopened milk deliveries on the doorstep, or uncollected mail or newspapers also featured heavily in the list of visual scanning checks performed on a potential target, as Trevor articulated: 'look at all the mail sticking out of the door. If I come back later on and all that mail is still sticking out of the door I'll know that no one is in there'. Continuing the performativity of burglary, Ryan described how burglars would manipulate perceptions of what a thief would look like, thus avoid arousing suspicion:

I used to wear high visibility jackets. People don't look at you - they think you're working. I've known lads to smash a window at a house and people look and just think you're fixing the window. I remember speaking to a man in prison and he used to go out [...] to burgle houses in a suit. If someone is walking down the street in a suit it's the last thing you think of that they are going out to burgle.

An additional aspect of the 'uninterrupted' element of the PAUSED model was the presence of burglar alarms, which clearly would disrupt the process of a burglary. The deterrent effect of alarms depended on the model, how old it appeared and whether the burglar believed it had been activated. Invariably, ADT burglar alarms provided the greatest level of deterrence. This was due to a belief that they were linked directly to the local police station or security company and therefore burglars wouldn't have much time to complete the offence before the police arrived at the scene. Ryan asserted that he wouldn't target a house 'if it had an ADT alarm because a lot of them are linked up to the police station. I don't like doing them when they have alarms on because that's how you get arrested.' Similarly, Trevor stated: 'Most of the alarms these days aren't switched on, but your ADT alarms you know straight away not to [burgle]'.

If the alarm was in a state of disrepair then it was no longer a deterrent as Trevor articulated:

Look at the state of that alarm. The other thing is a lot of people with alarms don't even put them on. I've been in loads of houses where they have been in bed and the alarm hasn't been switched on. If you have an alarm you switch it on. See the state of that one? I would say that is 20 years old or something. That one is hanging off the wall. That one is upside down, falling down in fact. But if you see a fresh new alarm like that one over there, that will put you off.

Both Trevor and Ryan claimed that they could tell if an alarm had been activated.

Highlighting the importance of in situ cues, Trevor reported looking for additional cues to validate the assessment: 'If they have dogs and cats running around the house and they have a burglar alarm, you know they won't have put it on because the dogs and cats will set it off. It's the same with birds in cages - they would set it off'.

Surveillable

‘The way it works is if you can’t see anyone, no one can see you’ attested Ryan. Natural surveillance played a key role in target selection amongst the ‘Northern City’ burglars. The majority of burglars preferred to enter the property from the rear due to a relative lack of surveillance. This finding is supported by previous research. For example, of 65 burglars interviewed in Hearden and Magill’s (2004) study, the majority entered from the rear of the property. Trees, shrubbery and fences were all perceived to offer protection for burglars so that neighbouring houses or passers-by could not see them.

In the ‘Affluent Area’ site visit Ryan selected several houses as ideal burglary targets, in part due to the fact that the houses backed onto a field and provided a large amount of cover due to the ‘big high bushes’:

I would see that there was nothing at the back of these houses so you know that no one can see you. I would jump over those fences and in the back garden and no one can see.

Similarly, in ‘Student City Suburb’, the anonymity provided through poor spatial territoriality and lack of natural surveillance indicated to Trevor that the area was ideal for burglary. He identified the student halls of residence as being particularly problematic due to the lack of surveillance.

[B]ut look at that [...] look at all the trees. You need to cut those trees back, especially near the houses and get some security lighting on it so that it’s lit up [...] Sometimes you get people sat in the bushes waiting for them to go out and watching, they need to get those bushes cut back. They can watch and see who is coming and going. At night-time when you’re sat at home with the light on and you look out you can’t see anything, its just pitch black, but you can see in perfect.

Escapable

A fundamental difference between burglars and other property offenders is that, mostly, they do not wish to come into contact with other people at the time of committing the crime (those committing distraction burglary are a notable exception). Indeed, if they were to be disturbed, discovered or challenged most would immediately attempt to flee. As such, escapability is a fundamental aspect of the burglary appraisal and any doubts about not being able to rapidly leave the property would result in it being discounted as a viable target. The desirability of

open fields and clear pathways to leaving the vicinity was raised in Affluent Area as discussed above. In Student City Suburb, target hardening in the form of alley-gates raised the most deliberation regarding escapability.

There were several examples of alley-gating in the Student City Suburb. The gates presented a 'nuisance' according to Trevor, that at times, could serve as a deterrent: 'they are a nuisance ... in the middle of the night when you have to start getting over them it can put you off, definitely'. However, the positioning of some of the alley gates was ineffectual and deemed illogical by the burglars in the present study. For example, in some instances gates had been positioned half way down the alley. Although this effectively creates two 'dead ends', it doesn't prevent burglars from approaching the back of the houses. The would-be offender would simply identify an alternative escape route. Effective alley-gating should limit the ability of criminals to access property, and ideally should be placed at both ends of an alley. The escapability of a property features prominently in a burglars' target appraisal and if any doubts are raised about being able to leave quickly and without being noticed, it is unlikely the burglary will take place.

Dishonourable

Successive studies have increasingly restricted the understanding of target appraisal to that of a risk-reward calculus, overlooking considerable phenomenological considerations that may also influence a burglar's decision-making process. Whilst the first five components of the 'PAUSED' model expound upon situational considerations that could disrupt the fluidity and rapidity of target selection, another category of decision-making was also apparent amongst the participants. If a target or a required modus operandi was thought to be of dubious morality it could be discounted on the basis that it'd be 'Dishonourable'. Dishonourable targets and methods varied amongst participants but included burgling elderly people's homes, increasing the likelihood of direct contact with the victim (such as distraction burglary), or stealing items that clearly belonged to children. For Ryan, who was very disparaging of 'sneaks', burgling a house whilst the residents were at home was deemed dishonourable:

I would never go into someone's house when they were in. It would put a different effect on things, it's bad enough going in when they aren't there but going in when

someone's there and have a balaclava on, kids there. I would never do it if kids were there.

Along similar lines, Trevor was resolute that despite the number of offences he committed, he didn't target the elderly: 'I stay away from the old people's houses. It's the elderly isn't it? I wouldn't do that'. This was a recurrent finding amongst all interviewees except those that committed 'distraction burglaries' who sought out more vulnerable victims to target (Taylor, 2014). The prospect of a dishonourable burglary could introduce perturbation to an otherwise rational offender's target appraisal, and result in the possibility of an offence occurring there being PAUSED indefinitely (see Taylor, 2014 for further analysis relating to the emotional, moral and affective aspects of decision-making amongst residential burglars).

Discussion

Contribution to the field

The VPA method utilized in this study with residential burglars exposes the dynamic of potential targets, and reveals how burglars respond to the ever-shifting tide of opportunity with versatility and creativity supporting what Nee and Ward (2015) have termed 'dysfunctional expertise'. An undesirable property in one instant can become desirable in the next as the signals and cues it emits shift. The study contributes not only new tools for investigating offender processes, but also a model to understand target appraisal and the factors that can disrupt the flow of decision-making. As Wilkins and Chandler (1965: 22) assert, quality decision-making research constructs a situation 'as near to that met in day-to-day work of the participants'. Previous studies based on interviews and/or photographic representations of burglary targets, whilst useful, can only provide static information, that, importantly, cannot access the creativity and responsiveness of burglars. As Katz (1988: 8) argues, 'as unattractive morally as crime may be, we must appreciate that there is genuine experiential creativity in it as well'. The verbalizations of burglars responding to 'real' and 'current' situations highlights the fluidity of appraisal, and reveals signifiers that can disrupt the decision to burgle, as encapsulated in the PAUSED model. As such, verbal protocol analysis was found to be a fruitful way of gaining insight into the decision-making process of burglars, particularly the dynamic way that this evolves in response to changes in the immediate environment. However, despite its apparent utility, there are several considerations to be taken into account if VPA is to be used in criminological research. These

are expounded below and relate to time intensity, generaliseability, site selection and ethical considerations.

Recruitment and sample size

As outlined above, the study involved multiple different methodologies in order to attempt to gain insight into residential burglary from the perspective of recently active burglars. Offence data was analysed to understand spatiotemporal patterns, items stolen, method of entry and tools used, victim characteristics, and so on; charge data linked to these incidents was analysed in order to build a profile of age, offence history, and distance travelled from home address to burglary target; interviews with 30 convicted offenders, both incarcerated and in the community, and the VPA with two individuals. It must be recognised that due to the sensitive nature of using VPA in real life settings and the time-intensive process associated, this method is only really viable with relatively small sample sizes, and as such, in this case, it was used to furnish other methods with contextual richness. It is regretful that following the successful execution of the VPAs it was not possible to conduct further site visits with experienced offenders and reach a point of saturation. Budget, time constraints, the reliance on the good will of probation staff, and offenders, placed significant restrictions on the size and scope of the study (the author was employed in the public service, not an academic institution at the time of the research). Assessing the suitability of the participants was a relatively lengthy process, requiring approval at various levels of the Probation Trust, and in hindsight, one that placed a large amount of responsibility on the participant's caseworkers to essentially vouch for their clients. In a climate of increased caseloads and reduced staff numbers, it might be advisable for participants to be identified and recruited through alternative means.

Trickett and Trafton (2009: 344) recognise when trying to publish research findings elicited from VPA: 'Some reviewers balk at the generally small sample sizes'. However, it is argued from this pilot study, that the richness of the data will provide adequate compensation for small sample sizes. The present study involved VPA with just two participants, and should not be considered generalizable. Furthermore, whilst the participants had different motivations, approaches and levels of experience, they clearly don't represent a complete spectrum of burglar typologies. A further possible limitation, is that the location for the VPA was selected by the research team in consultation with the local police force. While this didn't appear to impact on the reading of spatial and temporal cues, future studies might

consider allowing the offender to select their own location or return them to previous targets. However, the study does provide a much-needed pilot to demonstrate the usefulness of such a method in understanding offender modus operandi and decision-making. Eliciting verbal reports *in situ* are a useful way of accessing the mental cognitive processes of offenders, perhaps more so than post hoc accounts.

Ethical issues

There are also, of course, ethical issues with visiting hotspot locations with convicted offenders. In order to attempt to assuage the possibility that site visits would inspire or incite criminal behaviour, potentially resulting in the offender returning to the area to commit an offence, a careful process of selection was undertaken, involving consultation with both the local police force and probation service. Both participants were under the supervision of the probation service at the time of the study and had been assessed as being at low risk of reoffending on the offender assessment system (OASys). Furthermore, both participants were found to be truthful in their semi-structured interview (verified by comparing their transcripts with their criminal record), and raised a desire to make amends for their crimes through providing insight into crime prevention approaches. There are of course always ethical issues involved with recruiting convicted offenders to be research participants, but in this study, all steps to mitigate these issues were taken. Furthermore, the benefits of accessing information from offenders as ‘experts’ is well versed in the criminological literature, including studies on residential burglary with active offenders (Cromwell, Olson, and Avery, 1991; Rengert and Wasilchick, 2000; Wright and Decker, 1994).

Conclusion

This study has illustrated that verbal protocol analysis could provide an ecologically valid and novel means of eliciting information from offenders regarding their modi operandi and criminal performance. The methodology could be fruitfully applied to other areas of criminal behaviour, particularly in relation to other property offences, such as shop theft (see Jacques, Lasky and Fisher, 2015), to assist with revealing the complex cognitive processes involved in offender decision-making. VPA is novel in criminological research, yet can provide invaluable insight into how offenders note, read, and respond to shifting situational stimuli *in situ*. Similar to virtual burglary experiments (Nee et al., 2015) and simulated shop theft (Jacques, Lasky and Fisher, 2015), VPA is a noteworthy method as it enables some of the major shortcomings of offender interviews, such as cognitive biases and post hoc

rationalisations, to be avoided. Whilst useful for gaining some insights, offender interviews are limited in their ability to extract accurate and detailed information about the multiple and confounding variables that an offender processes in the real world. Furthermore, VPA reveals how sensitive offender decision-making is to ecological changes. Conducted with carefully selected participants with the assistance of criminal justice professionals, VPA could offer invaluable insight to offender decision-making that, hitherto, has not been possible in mainstream criminology. However, due to its limitations, particularly time intensity, it should be utilised as part of a multi-method approach to understanding offender decision making and behaviour.

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Table 1. The PAUSED model of offender decision-making

Profitable	Are there sufficient cues to suggest that there are valuables on offer - is the target worthwhile?
Accessible	Can the target be accessed, and is the effort required to access goods proportionate to the effort required?
Uninterruptable	Can the burglary be completed with a low chance of being disturbed?
Surveillable	Is it likely that the burglar will be seen by a capable guardian? Surveillability includes natural and technological surveillance.
Escapable	Does the target have a clear and easy escape route?
Dishonourable	Does the target offend the moral sensibility of the burglar? For example, targeting the elderly or using a modus operandi such as 'distraction burglary' which brings the victim in direct contact with the perpetrator.