

## Realist methodology in practice: translational findings from two realist syntheses

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*“The work will teach you how to do it.”*

*Estonian Proverb.*

### Abstract

The author is currently conducting two rapid Realist Syntheses, one to identify the theoretical bases of closed-circuit television (CCTV) to reduce alcohol-related assault in the night time economy, and the other to identify dimensions of evaluation to improve the effectiveness and efficiency of a number of services in northern Australia which address homelessness and alcohol-harm reduction. The CCTV project grew out of a “completed” Realist Evaluation; the homelessness and alcohol-harm project is the foundation for a future Realist Evaluation. This paper will examine how the Realist Synthesis protocols have been applied both retrospectively, and to inform the future Realist Evaluation. Each evaluation aims to understand how specific interventions work, or don’t work, using the explanatory structure of generative causation. Key findings are: that precise definitions of the programs’ outcomes are crucial to retrospectively applying the Realist Synthesis methodology; that the realist methodology can embed a continuous quality improvement process in the funding organisation once these outcomes are defined, making research engagement more effective; that the outcomes (and causal mechanisms) lie at different systemic levels, both internal and external to the organisation; and that this last point is something people within the funding organisation intuitively grasp, but have had difficulty articulating.

## Introduction

This paper summarises why the Realist approach to science is an important alternative to more conventional approaches in studying complex social interventions. It contrasts two current rapid Realist Syntheses, and reports on practical issues discovered in conducting each of these reviews. Examples are provided of the results to highlight how the methodology worked in practice.

The first realist synthesis (RS) is a retrospective review which attempts to refine the theoretical bases of open-space, urban CCTV systems. The second RS is a review which has been designed to inform a future evaluation of provision of social services in Cairns.

The Realist philosophy of science suggests there is a complex reality in the social world, and that complex interventions such as CCTV change the nature of this social reality at a range of different levels. It also suggests some aspects of this complexity cannot be directly measured through research methods which were designed to test the effectiveness of interventions which are applied in the same way to identical participants (Pawson & Tilley, 1997; Wong, Greenhalgh, Westhorp, Buckingham, & Pawson, 2013). Realist inquiry posits that specific ‘outcomes’ are caused by relevant ‘mechanisms’ being triggered in defined ‘contexts’. In social science these contexts are different; this will be explored below. Basically, Realism aims to understand what works for whom in what real-world context, and why. Two key methodologies in this approach are ‘Realist Synthesis’ (RS) and ‘Realist Evaluation’ (RE). Each aims to address issues of complexity in the real world.

Interventions are theories in practice (Pawson, 2003). These theories are rarely explicitly stated (Pawson & Tilley, 1997; Wong, Greenhalgh, et al. 2013). Applying these theory-based interventions relies on the actions of the people who are delivering the intervention at each stage in a chain of steps. The processes at play in each link in the chain are often not linear. They involve human beings embedded in social systems which are localised and global at the same time. Finally, interventions are open systems and change through learning. Social interventions are themselves complex systems which have been inserted into complex systems (Pawson, Greenhalgh, Harvey, & Walshe, 2005). No wonder systematic literature reviews using the Campbell protocols of review often find that the evidence of program effectiveness is mixed or conflicting, and provide few insights as to why the intervention worked or did not work when applied in different circumstances, or was implemented by different stakeholders (Pawson, Greenhalgh, Harvey, & Walshe, 2005). No wonder quasi-experimental research and evaluation designs face similar outcomes; each of these specifically aims to homogenise and flatten out differences in context (Pawson & Tilley, 1997). There is however wonder in the realist approach. It is just that it is complex — and for complex, read difficult. But the core concept of realism is simple; researchers should explicitly explain how the program theories in an intervention are supposed to work. Realist Synthesis (RS), or Realist Review, is a strategy for synthesising research which aims to disaggregate and identify the mechanisms through which complex programs work in particular social settings, or why they fail. RS aims to identify the relevant program theories.

Aiming to identify these theories is what makes RS a useful approach to summarising the evidence from across multiple studies. The methodology examines and synthesises published primary research studies on a single topic to find the main idea or ideas which inform a certain type of intervention. This is known as the ‘program theory’, which explains how and why deterrence works in CCTV for example. Realist Evaluation (RE) aims to understand and refine how these theory-based interventions cause outcomes in the real-world. It uses a range of quantitative and qualitative research methods to define the context in which an intervention is expected to have an impact, the mechanisms through which the intervention achieves its impact, and the outcome of introducing the intervention in that particular context.

RS and RE are both iterative methodologies, ideally identifying program theories, linking these with the chains of steps in interventions and producing outcomes which improve the life of people in the real world. This paper contrasts two current rapid RSs, and reports on practical issues which have been discovered in conducting each of these reviews.

The first is a retrospective review which attempts to refine the theoretical bases through which open-space, urban, closed circuit television systems (CCTV), which are monitored in real-time by human operators, may reduce the rate or severity of alcohol-related assaults in the night time economy<sup>1</sup>. This review grew out of a RE which has thus far progressed through three iterations, each focused on a different operational aspect of the system. This night time economy is in Cairns, a tropical Australian city.

The second RS is a review which has been designed to inform a future Realist Evaluation of service provision aiming to reduce homelessness and related alcohol-harm in Cairns. This review aims to broadly identify what has been found to work with clients in various age cohorts in street-based outreach, volatile substance misuse, and crisis accommodation. This improved understanding around how and why interventions work, if and where they do, will inform qualitative and quantitative research involving staff and management in a range of services which are part of one organisation.

Each synthesis has adhered as closely as possible to the RAMESES guidelines (Wong, Greenhalgh, et al. 2013; Wong, Westhorp, Pawson, & Greenhalgh, 2013) through each step of the process. In conducting the two reviews, the RAMESES protocols effectively answered process questions which arose from the research. A key mechanism in this for the author was the continued emphasis of the protocols and reasons for using a realist philosophy: “Why am I using realism to explore this question?”

As I am being so personal, some history of how and why I became a Realist may be required.

### **The personal process**

I am a beginner in the Realist methodology, coming to research from a background in community capacity building within the public service. My research training began in

the discipline of public health. Our team had conducted nearly 18 months of qualitative and quantitative field research into the problem of alcohol related assault linked to licensed premises in the Cairns NTE. Unknowingly I had been working backward from an attempt to more clearly define relevant outcomes toward an understanding of the range of contexts in which this type of alcohol related assault occur.

The original project sought to understand, through qualitative research, the ecology in which the alcohol related assaults occurred (Clough, Hayes-Jonkers, & Pointing, 2013; Pointing, Hayes-Jonkers, & Clough, 2013). The project collected and linked quantitative data from the police, the hospital emergency department, the CCTV system and other stakeholders in close-to-real-time (Pointing, Hayes-Jonkers, Stone, Brinn, & Clough, 2011). Findings were fed back to the Liquor Accord and smaller focus groups in an attempt to better inform future interventions to reduce assaults (Clough et al. 2013).

To achieve each of these aims we had to talk with people. They told us how they could link the data, and why they thought it was a good idea. They also told us what they thought the problems were and how they thought these could be addressed. These are the implicit mechanisms, which it is important to draw out, and for which Realism is such a powerful tool. For me the other mechanisms, those theories within the literature (Cherpitel, 2007; Graham & Homel, 2008; Havard, Shakeshaft, & Sanson-Fisher, 2008; Hawkins, Sanson-Fisher, Shakeshaft, & Webb, 2009; Palk, Davey, & Freeman, 2010), came later.

This original mixed methods project led to a research partnership to audit and evaluate Cairns Regional Council's CCTV system (Pointing, Hayes-Jonkers, Bohanna, & Clough, 2012). Negotiations to establish this project centred on the needs of Council to benchmark the operations of their system against international good practice. To do this we synthesised 45 peer-reviewed articles and government reports from Australia and the United Kingdom into a table of good practice, and compared the operations of the Cairns system against these benchmarks (Pointing, Hayes-Jonkers, & Clough, 2012). A reviewer of the original manuscript suggested we look at Pawson and Tilley's (1997) work on Realist Evaluation.

When I first read their summary of the Realist approach, I experienced an almost physical sensation of "clicking". The ontology of a layered structure of reality, and the epistemology of outcomes being dependent on the context in which they were sought, made intuitive and methodological sense. The article was rewritten from a realist perspective, although I still had an extremely limited understanding of what defined Realist 'context'. Defining and understanding context still presents the most challenging part of the process for me, an experience which seems to be shared by others working in my team, as well as more experienced researchers than myself (Davis, 2005; Wong, Greenhalgh, et al. 2013).

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1. For a definition of 'night time economy' and further discussion of it, see Brown (2014), also in this journal issue.

The contexts identified in that article were mapped into a logic diagram which was shown to Cairns Regional Council staff as a way to begin evaluating the effectiveness of the CCTV system in addressing alcohol-related assault in the night time economy. This is shown in Figure 1, ‘Diagram of Realist Evaluation of CCTV Interventions’. Over a three year RE of Cairns Regional Council’s CCTV system (Pointing, Hayes-Jonkers, & Clough, 2010, 2011; Pointing & Clough, 2013), we realised that the underlying theories of how open-space CCTV in an urban environment may reduce alcohol related assault in a night time economy had not yet been summarised into a set of Context/Mechanism/Outcome configurations. This RS aimed to specify how mechanisms associated with various dimensions of CCTV operation have generated identifiable patterns of outcomes (reduction in alcohol related assaults) in similar contextual conditions (a night time economy in a western economy).

In an initial attempt to frame a RS, these “clumps” of mechanisms and contexts were then mapped against a commentary of CCTV research (Wilson, 2008), to produce some putative theoretical domains of how CCTV might work. This is shown in Figure 2, ‘Putative Diagram of CCTV Theory Domains’.

The process of undertaking two realist syntheses is described below, and the experiences gained in attempting to faithfully follow and apply the RAMESES *Realist Reviews Quality Standards and Realist Training Manual* in order to produce high quality reviews are described. This includes a commentary on how the *Quality Standards* table was applied in practice for both RS. Firstly, the retrospective CCTV review process is outlined. This project used the RAMESES documentation to guide an analysis and synthesis of 45 primary studies examining the effect of CCTV on crime reduction (Welsh & Farrington, 2009).

Figure 1: **Diagram of Realist Evaluation of CCTV Interventions**

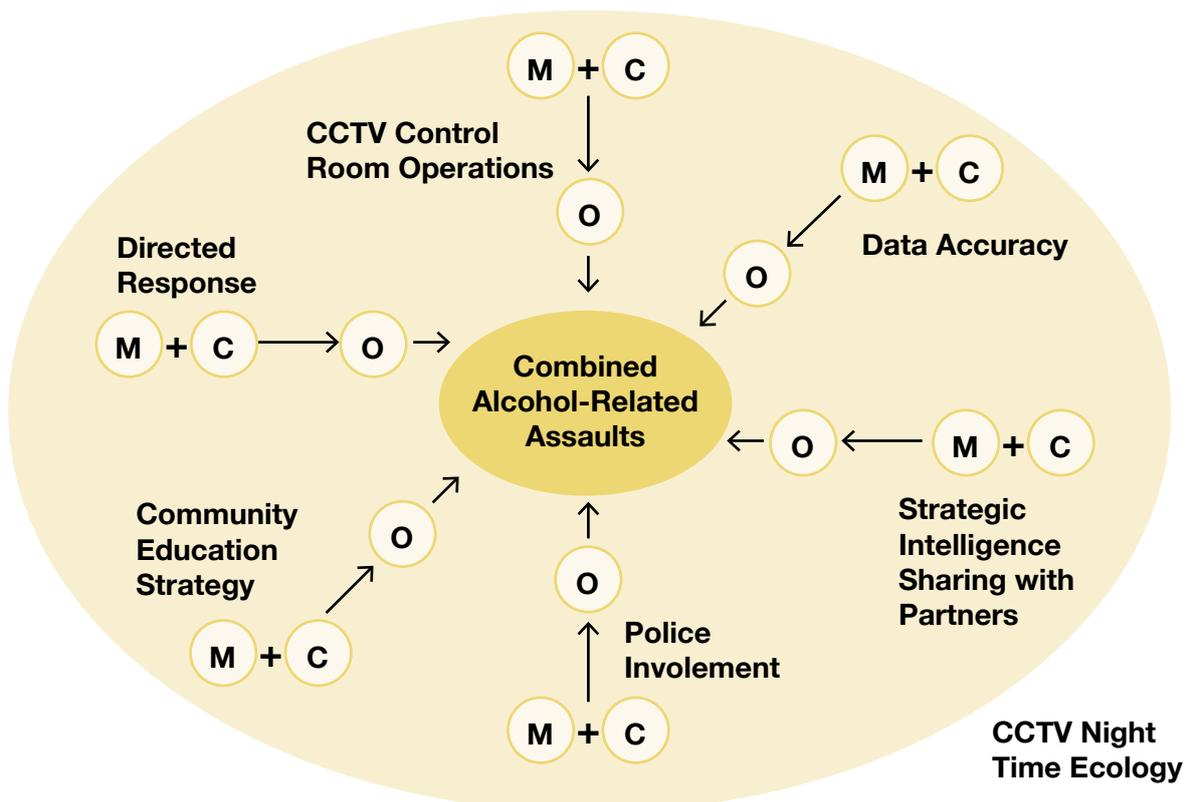
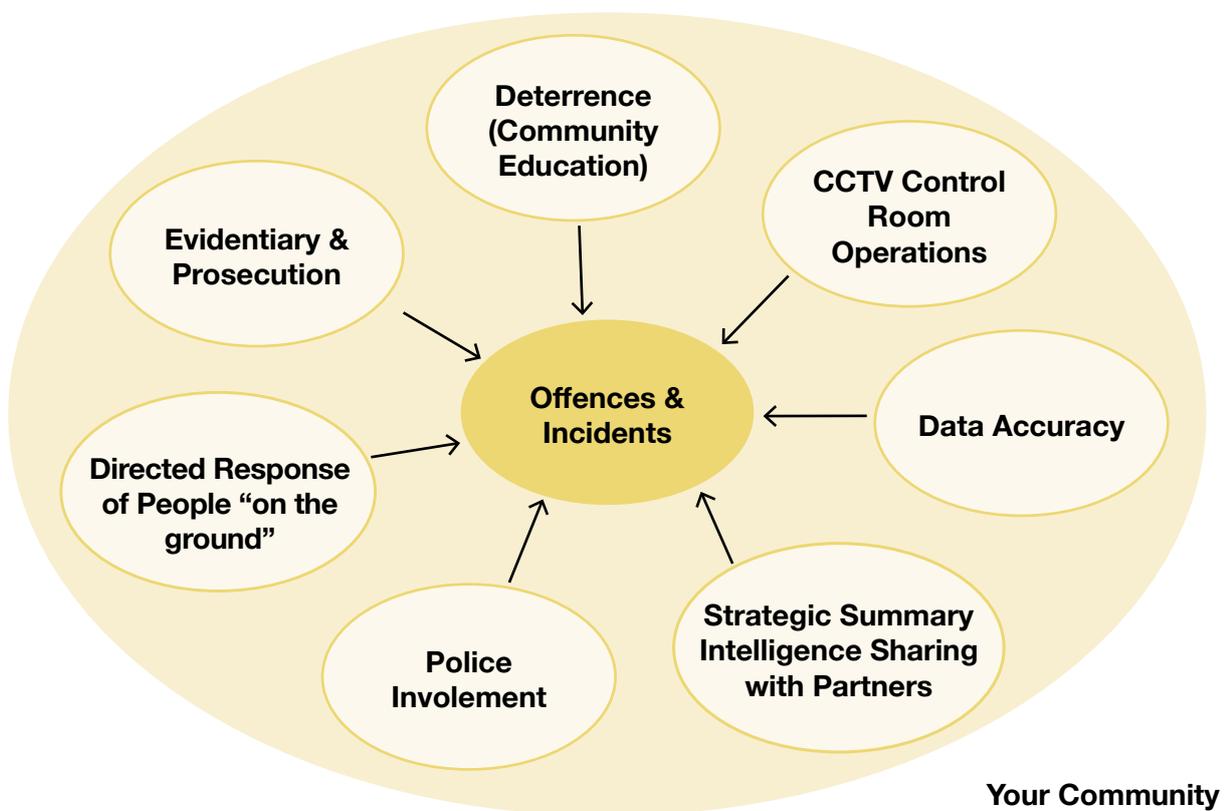


Figure 2: Putative Diagram of CCTV Theory Domains



### Retrospective Review into CCTV and Alcohol Related Assault in Night Time Economies

Between 2006 and 2013, the Australian Government funded over \$15.9 million for CCTV cameras in 29 local government areas, two States and two chambers of commerce (Commonwealth Attorney General, 2014). This does not include separate projects funded by state governments. The stated political aim of installing this open-space urban and suburban CCTV infrastructure is to reduce and prevent crime. Despite this capital spend on technology in Australia, the relevant peer reviewed literature and government reports contain little articulation of how to make these systems more effective in their stated aims, or indeed, what managers may do to improve the performance of their systems once they are installed. Further, as noted above, a widely cited systematic review and meta-analysis of whether CCTV achieves this aim, is inconclusive.

Welsh and Farrington have conducted a number of systematic reviews and meta-analyses on the crime reduction effects of CCTV (2002, 2009). They found that decreases in crime associated with the introduction of CCTV in experimental areas when compared with control areas were modest but significant. They concluded this was evidence of effectiveness was largely due to CCTVs effectiveness in reducing property crime in car parks, but that it was not effective in reducing personal crime in town centres. They also noted the importance of future research to identify the causal mechanisms linking CCTV to reductions in crime. The current RS based on the studies included in their review aimed

to pull apart and understand the mechanisms which led to these different outcomes in these different contexts. Limiting the primary studies analysed through the current RS to the 44 original studies which were examined (Welsh & Farrington, 2009), kept the number of papers to be analysed to a feasible number.

Realist Synthesis protocols require the development of a Realist Matrix. In *Realistic Evaluation*, Pawson and Tilley (1997) provide a range of possible CMOs for the use of CCTV. As a starting point, a CMO table was developed for the contexts and mechanisms identified in Welsh and Farrington's systematic review (see Table 1: CCTV Crime Prevention Theories identified by Welsh and Farrington (2009) as a CMO table). This first, coarse, identification of theory was drawn from Welsh and Farrington's Introduction, Discussion and Conclusions sections of their systematic review. The attempt at importing their research into a Realist framework highlights a number of issues which will be discussed below. Importantly, Welsh and Farrington (2009) note that a significant problem in interpreting the results of their review was that crucial information on the evaluations was not always included in the articles which they reviewed. This is also the case for attempts at Realist Synthesis.

Of relevance to this current paper, Welsh and Farrington (2007) found that CCTV schemes in the United Kingdom showed a significant desirable effect on crime, while those in other countries generally showed no significant effect. They partly attributed this finding to methodological issues, partly to the holistic approach adopted in the United Kingdom, and strongly suggested this may be due to a lack of public support for surveillance in the United States or Scandinavian countries compared with Britain. They attributed this lack of public support to the cultural contexts of different countries, and attributed a lower police priority or lack of deterrence to this lack of public support. The difficulty the current author had in categorising "lack of public support" as either a context or a mechanism is an example is further emphasised in the discussion of deterrence below.

Table 1: **CCTV Crime Prevention Theories identified by Welsh and Farrington as a CMO table**

<b>Outcome</b>	<b>Context</b>	<b>Mechanism</b>
<b>Effect on Crime</b>	<b>Theoretical Domain</b>	<b>Identified Mechanisms</b>
Positive	Technological determinism	Number of cameras installed (visual coverage of cameras)
Positive	Situational crime prevention (Routine Activities Theory & Rational Choice Theory)	Formal surveillance
Positive	Psycho-social processes in the monitored population	Deterrence through increased subjective probability of detection (especially if CCTV well publicised)
Positive	Natural surveillance further increases the true and subjective probabilities of detection	Increase pedestrian usage of places
Positive	Psycho-social processes in the monitored population	Encourage potential victims to take security precautions
Positive	Policing and enforcement	Increase the true probability of detection
Positive	Policing and enforcement	Direct police and security personnel to intervene to prevent crime
Positive	CCTV could signal improvements in the area	Increased social capital
Positive	Community Crime Prevention	Implemented with a range of other prevention measures
Positive	Community Crime Prevention	Increase community cohesion
Positive	Community Crime Prevention	Increase informal social control
Negative	Give potential victims a false sense of security	Relax their vigilance
Negative	Give potential victims a false sense of security	Stop taking precautions
Negative	Statistical Rates	Increased reporting and recording of crimes to/by Police
Negative	Cultural context	Lack of public support
Negative	Lack of public support	Police assign lower priority to CCTV schemes Low media coverage reduces deterrence
Neutral	Displacement	Temporal and Locational tactical (change in method), target (change in victim), and functional (change in type of crime).
Neutral	Diffusion	Offenders know CCTV in a location may result in their apprehension and move activities

After the systematic review was analysed, each original article it cited was reviewed to understand what the original research looked for and how the researchers examined CCTV. The initial examination of original articles categorised each study by country in which it took place. All were “western” cities. Each paper was examined to identify whether fear of crime and/or perceptions of safety were investigated (outcome), whether reported crime figures only were used or if the study also examined calls for service and other indicators of crime (outcome), and any other outcomes which were listed in the original studies. Each paper gave a brief overview of aspects of the ecology (e.g. night time economy, residential estate, car parks, railway stations, hospitals and nursing homes) in which the cameras were deployed, as well as the operations and management of the monitoring, or control, rooms. These were categorised by the current author as “overarching contexts”.

Research which specifically focused on town centres/night time economies in 21 locations were included in the RS, with research focusing on other location types excluded from the review. Concurrently each study relating to the night time economy was categorised as to whether a theoretical basis for CCTV was detailed, and if so, what that theoretical basis was. Situational crime prevention (Clarke, 1997) was the theoretical basis most often cited (in 38 out of the 40 original studies found), with deterrence mentioned in almost all the papers but no further links in the chain of causality. That is, there was little exploration of how CCTV is thought to deter criminal activity. Real-time deployment and dispatch (Sivarajasingam, Shepherd, & Matthews, 2003), and real-time intelligence (Brown, 1995) were also mentioned in a small number of papers.

RS is an iterative process. It became clear early that studies excluded in the original project scope should be included, particularly references from one article which articulated the theoretical base of the intervention in terms of perceptions of safety (Mazerolle, Hurley, & Chamlin, 2002), and studies on camera operator performance (Donald, 2008; Gill et al. 2005). Other studies examining camera operator performance were not analysed due to time constraints (Keval, 2006; Keval & Sasse, 2006; 2008). Because deterrence was a key theoretical concept in the papers examining CCTV, and the experience of personal consequences has been found to influence deterrence of offenders, a set of studies linking camera operator performance, detection and deployment, police activity and deterrence were included (Piza, Caplan, Kennedy, & Gilchrist, 2014; Piza, Caplan, & Kennedy, 2012).

As noted above, in the original studies used by Welsh and Farrington (2009):

1. There was a paucity of papers which were theory-driven, and these programme theories were barely articulated in the studies. A number of interventions were described in detail however, and these have provided sufficient detail to identify literature which links these interventions with programme theories;
2. The description of the ecologies in which the systems operated, as well as details regarding the management and operational parameters of the CCTV systems were usually minimal. They did however provide sufficient detail to explore literature from a range of disciplines (public health, criminology, organisational psychology, drug

and alcohol interventions) in order to better define some contexts of the night time economy, and the operational contexts through which CCTV is expected to have an effect (for example, camera operator attention);

3. A range of outcomes were analysed in each paper, each of which also pointed to domains of literature in which a limited range of program theories were identified.

These findings are similar to those well documented in the Realist literature. In many papers it was possible to work backwards from the outcomes identified in each relevant paper in order to begin to disaggregate contexts and mechanisms.

The next step was to reread each original article and place the ideas and results from them into a table with a column for Outcomes, a column for Context and a column for Mechanism to begin to understand the CMO configurations. These CMO tables were adapted from a previous Realist Synthesis (Ogrinc, Batalden, & Moore, 2009). This table model was chosen for simplicity, as each original paper dealt with one overarching program; CCTV. There were however, disparate study types, and many papers required the development of a number of tables, each categorised where possible by theoretical bases. These were then synthesised according to outcomes, and concurrently synthesised by programme theory. A total of 38 initial CMO tables were constructed from the 21 original studies used. In these 38 tables, a total of 186 rows of possible CMO configurations were assembled. Of these 186 rows a total of four completed CMO configurations were possible using data contained from the original studies. Put another way, the information contained in the original studies only provided enough relevant data for the construction of four sentences in the form of, "This works for these people because...".

The example of the theory of deterrence as it relates to CCTV is shown in Table 2: 'Initial CMO Hypothesis Grid for understanding CCTV as a deterrent'. These are mainly drawn from two studies which most explicitly linked deterrence with the existence of CCTV systems (Piza et al. 2014; Piza et al. 2012). CMO configuration sentences remain implicit in the CCTV literature; however drawing from Piza et al. (2012), the logic for deterrence would read something like: 'Crime is reduced when CCTV cameras are present because offenders perceive an increased level of risk in offending.' This was the initial rough theory around how CCTV deters criminals. Following the placement of concepts into the CMO table, a range of refined configuration sentences were developed, for example: 'Offenders are deterred when they have personal experience in being apprehended at least once before through the use of CCTV.'

The initial rough theory for failure to deter would read something like: 'Crime is increased when offenders commit crimes when CCTV cameras are present and they avoid punishment because they adjust their perception of risk downward.' The refined sentence could read: 'Offenders are not deterred when there is no guarantee offences will incur punishment because they have no personal experience of CCTV footage being used to investigate or prosecute them'.

Additionally, it became clear that my use of the categorisation, 'overarching contexts', was an inaccurate understanding of the Realist use of the term 'contexts'. The context may refer more to the psychosocial ecology contained within these spaces which were

defined through the use of these spaces. The difficulty in categorising something as a context or a mechanism, or even as an outcome is shown in Table 2: 'Initial CMO Hypothesis Grid for understanding CCTV as a deterrent.'

Table 2: **Initial CMO Hypothesis Grid for understanding CCTV as a deterrent**

<i><b>Theory: Deterrence</b></i>		
<i><b>Some Possible Outcomes</b></i>	<i><b>Some potential Contexts</b></i>	<i><b>Some Plausible Mechanisms</b></i>
Lower crime	Offender deterred (rational choice theory)	Presence of cameras is salient to offender
CCTV poses an increased level of risk to offenders	CCTV detections lead to more police enforcement actions than previously	Offender deterred
Offender deterred	Previously apprehended or convicted through CCTV	Offenders attribute apprehension or conviction to CCTV
Offenders attribute apprehension or conviction to CCTV	Directed response through Camera Operator deploying on-the-ground resources to interrupt the incident.  Footage successfully used to investigate and prosecute.	Camera Operator awareness and detection of incident  Effective Real-time communication processes  Sufficient on-ground resources available (police, private security presence)
CCTV incidents demonstrate higher arrest rates for the same offence type	CCTV generates increased law enforcement activity in target locations.	Offenders have increased perceptions of certainty of punishment.
Offenders hold increased perceptions of certainty of punishment.	CCTV footage evidence is used for more effective and efficient investigation after the incident	Offenders who have been punished adjust their perception of the certainty of punishment upward
CCTV incidents demonstrate higher arrest rates for the same offence type	Real-time intelligence by Camera Operators to police on the ground assists in arrests on-scene  CCTV footage evidence is used for more effective and efficient investigation after the incident	Trust between Camera Operators and operational Police  Clear communication processes

That RS is an early attempt at building theory through a realist review and is certainly under-developed, but any early attempt will appear underdeveloped in terms of middle-range theory and CMO configuration (Jagosh et al. 2012). The exploration of theoretical

bases from literature continues, and the contexts are still being refined. Synthesis is continuing. I have had more than three years of sustained and concentrated exposure to this class of intervention (CCTV to reduce crime). Without this understanding of this type of program I would have floundered more than I did. I still have a headache.

### **Review into homelessness service delivery in order to design a Realist Evaluation in a regional (north Queensland) context**

#### *Background*

Homelessness is a complex issue which affects over 100,000 people in Australia on any given night. It is the result of a range of inter-related complex risk factors, including domestic violence and abuse, family conflict and neglect, poverty, alcoholism, drug addiction, mental illness and higher housing costs<sup>2</sup> (Department of Families, Community Services & Indigenous Affairs, (FaCSIA), 2008; Minnery & Greenhalgh, 2007). Cairns is a community which has been found to suffer a significantly higher homelessness rate than the rest of Queensland and Australia (Australian Bureau of Statistics, 2013; Department of Communities & Queensland Council of Social Service, n.d.) and higher rates of housing related stressors (Department of Housing, 2007). Housing related stressors have been found to substantially contribute to tenancy disruption (Atkinson, Habibis, Easthope, & Goss, 2007), subsequent offending behaviour by impacted individuals (Stewart, Livingston, & Dennison, 2008), and negative impacts on individual life trajectories, including adverse contact with the criminal justice system (Homel, 1999), poor health and educational outcomes (Ancona, 2008; Bridge, Flatau, Whelan, Wood, & Yates, 2007).

This RS aims to investigate the program theories which impact on the effectiveness and efficiency of individual services in Cairns which address alcohol-harm reduction and homelessness. It will define the dimensions for a future realist evaluation aiming to efficiently enhance the quality of client service of each agency, and to improve the contribution these services make to a place-based community safety approach. Three interconnected methodologies will be used:

1. Literature review and desktop analysis (using Realist Synthesis);
2. Realist Evaluation (RE); and
3. Network analysis.

This RS aimed to build dimensions for future evaluation using the RE methodology. Many outcomes of interest to the funder are clearly defined in their service agreements. These outcomes however may be better termed as “outputs”, in that they are exclusively quantitative and use measurable descriptors such as proportion, percentage and incidence of client contacts and presentations. The realist inquiry began with the questions: ‘Why are these outputs important to the outcomes?’ Again, the importance

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2. The Department of Families, Housing, Community Services & Indigenous Affairs became the Department of Social Services in early 2014.

of working backward from the outcomes required by the funding organisation was highlighted through this project. A desktop analysis of relevant policies, procedures, reports to funders, strategic plans and annual reports to define the required outcomes, contexts and interventions for each service was conducted. In the case of this RS the term “interventions” was used as a tool to categorise the broad bases of relevant program theories. These outcomes, contexts and interventions were disaggregated by client group demographics, and limited to and homelessness. The research question for analysis was: ‘How can the effectiveness and efficiency of individual services in Cairns which address youth homelessness that is the targeted services in Cairns, be improved?’

Limiting the primary studies to be analysed was in this case done through identifying the specific target client groups, and the interventions provided for these individuals by the relevant service. The management documentation provided by the services usually contained a theoretical basis as to why this form of intervention is used. This has so far been the basis for further exploration of the relevant theoretical literature. To date the synthesis has focused on formulating an initial rough theory and CMO hypothesis grid for protective CMOs and risk CMOs relating to young clients becoming homeless.

Therefore, the initial theoretical base/client base was homeless young people, or those at risk of homelessness. The first document reviewed was a recent literature review commissioned by the Department of Families, Housing, Community Services and Indigenous Affairs (FaHCSIA) summarising relevant research on effective interventions for working with young people who are homeless or at risk of homelessness (Barker, Humphries, McArthur, & Thomson, 2012). That review conducted a comprehensive search strategy of 22 academic journal databases, government websites, and research clearing houses as well as Google Scholar. The aim of that review was to present the available evidence regarding effective interventions and approaches to reduce youth homelessness. The report authors noted a dearth of evidence specifically applicable to interventions to alleviate youth homelessness, and widened their search to include relevant risk and protective factors, as well as a broader category of youth interventions generally. Even this did not produce many Australian studies.

Importantly, Barker et al. (2012) were aware of the realist methodology, and this report contained elements of Realist structure and analysis. Equally importantly, the report identified a lack of rigorous evaluations regarding interventions to prevent, or respond to, youth homelessness. The reasons cited for this included the transient nature of the client group and the difficulty in defining precise outcomes against which effectiveness could be measured (Barker et al. 2012). The FaHCSIA literature review was used to identify the initial rough theory which framed pathways into and out of youth crisis accommodation, a coarse summary of evidence-based outcomes related to young people entering and exiting crisis accommodation, and the contexts and mechanisms which could plausibly be associated with these outcomes. Again, the CMOs were placed into a set of tables to facilitate the initial rough conceptualisation, and assist in the disaggregation into various theoretical bases. At this stage of the project, these theoretical domains focus on how family conflict leads to pathways into and out of crisis accommodation, and on client based theories regarding the centrality of the relationship between caseworker and client.

The reference list of the FaHCSIA paper was examined and so far a small number of relevant original papers pertaining to client based theory have been further analysed. This RS is in an early stage. Again though, the number of CMO tables which have been required to be constructed is almost double the number of original articles so far analysed. There is a range of intervention program approaches documented in the youth homelessness literature, for example, ‘case management’, ‘wraparound, community reinforcement’. The summary of the literature on these programs found that strength-based, client-focused approaches are most effective, and the quality of the relationship between case worker and client is central (Barker et al. 2012). An example CMO is shown in Table 3, focussing on the importance of the relationship between client and case-worker.

Table 3: Initial theory and CMO hypothesis grid for agency service effectiveness

<b>Theory: Centrality of Relationship</b>		
<b>Some Evidence based Outcomes</b>	<b>Some potential Contexts</b>	<b>Some Plausible Negative Mechanisms</b>
Engaging and maintaining clients in interventions	Establishing rapport	Reservations about program by client Distrust by client
Engaging and maintaining clients in interventions	Instability (what sort of emotional, psychological or life circumstances is the client experiencing)	Client unable to implement interventions despite commitment
<b>Some Evidence based Outcomes</b>	<b>Some potential Contexts</b>	<b>Some Plausible Positive Mechanisms</b>
Client is housed and maintains tenancy	Gains or regains life skills and sense of self-efficacy Practical assistance	Client engaged in interventions
Client is housed and maintains tenancy	Client engaged in interventions	Rapport between client and case worker established
Client engaged in interventions	Establishing rapport	Service and worker conveying respect of perceptions and experiences and acceptance Start where the client is: Incorporate clients perceptions and experiences into issues pertinent to the lives – prioritise issues important to the young person
Rapport established	Client trusts the service provider Client feels cared for Clients do not feel judged	Client has personal experience and perceives engagement with service will lead to a positive experience

Based on the documentation provided by the funding organisation, and their approach to client engagement, this initial rough placement of the centrality of the relationship between the client and caseworker has identified a number of dimensions around which to construct the staff interview and focus group tools for the qualitative research, and provides a causal logic chain linking the way staff engage clients with housing outcomes.

### Overall experience on the use of Realist Synthesis

The *Quality Standards for Realist Synthesis [for researchers and peer reviewers]* (Wong et al. 2013a), provide ratings of the proposed RS design, ranging from 'Inadequate' to 'Excellent'. Each domain of the project is spelled out to be benchmarked. The Standards include a Table which contains criteria to assist researchers in conducting their projects. The findings below detail the authors experience in referring to criteria and standards (ranging from adequate through good to excellent), contained in this table and attempting to apply the standards to the two projects outlined above. There are a number of issues I encountered in conducting these two RS. Two of these confirm what has been extensively documented in the RAMESES protocols. These are that:

1. almost all papers which will be reviewed as part of a RS project have not been conducted within a realist ontology or epistemology and will have major data gaps, particularly in regard to underlying programme theory; and
2. the process is iterative and requires moving up and down levels of analysis, as well as excursions into disciplines and domains other than the "putative" question under study. This work is almost always valuable provided the reviewer maintains a realist mindset – how and why does this cause something relevant to happen?

The practical conclusions to addressing these issues are:

- Each Realist research project was initiated as a result of client needs for evaluation of a small-scale intervention applied by the commissioning agency. The commissioners intuitively grasp that things work for different reasons in different contexts for the same problem. The context-mechanism-outcome framework allows practitioners and commissioners to focus on the aspect of a program which impacts on their core business, and allows them to explore and communicate their implicit knowledge.
- The questions have been about service delivery in a single geographic location, addressing an issue with a defined participant base. In my experience, the research question starts singly and simply; then it is disaggregated into a series of questions related to each of the theoretical domains in the cell above to obtain an understanding of the original research question.
- Analysis is driven by a number of theories, which aim to explain the problem, or the social context in which the problem occurs and is addressed. This has required acquaintance client-engagement theory, management theory, intervention theory, and theories about the causation of the problem. It is simplified by the question of 'what works for whom and why?'

- In practice, a range of CMO tables had to be constructed based on the program theory identified in the original articles. Many of these were outcome evaluations, with underlying theory poorly articulated. Working either forward or backward from reported ‘outcomes’ and poorly defined ‘contexts’ to the relevant mechanisms has been required in both realist syntheses. This is where literature seemingly unrelated to intervention programs is required.
- My understanding of ‘contexts’ was originally shaped by communicating the concept to CCTV system managers and camera operators. As such, I confused and conflated operational, empirical ‘contexts’ with a “purist” definition of ‘contexts’. I confused ‘contexts’ with ‘factors’.
- The first iteration of the research question has always had to be broken down into a series of more refined questions, which have to be linked to the original research question.
- The process is an iterative one. Moving up and down levels of analysis from the ‘empirical’ to the ‘real’ to the ‘deep’ has occasionally been daunting. The analogy in the RAMESES training manual regarding ‘detectives following clues’ has enabled trust in following the process no matter where it has seemed to lead in the short term.
- The retrospective RS built on existing qualitative research with a range of practitioners, not all of whom are directly involved in implementing the intervention. The core business of all of them, however, is affected by the intervention (CCTV). The prospective RS aims to inform qualitative research with a range of practitioners. RS should be part of a multi-stage project (RS, RE and network analysis), which aims to work with practitioners to understand, “why do we do this and how do we do it better?”, and then implement findings.
- Ideally, it would involve also working with clients to do the same, but as yet, the author has no experience in this.
- The selection and appraisal ran parallel with the analysis stage for both the retrospective and prospective reviews. The analysis of papers originally selected for review required identification of other research from wide ranging disciplines. Again, the ‘detective following the clues’ analogy was useful in maintaining faith in the process.
- As noted in the RAMESES quality standards, the use of any data within a paper should be based on the relevance to theory development and testing, and the rigour of the methods used. In practice, no paper which was analysed had both sufficient relevance and rigour to be adopted in sum.

## Summary, conclusions and implications

This paper has summarised practical implications in conducting two realist syntheses, based on the author's personal experience. Both related to evaluations of small scale, targeted interventions in a single location. One was a retrospective Realist Synthesis (RS) of the theoretical foundations of open-space, urban CCTV; an area in which the author had extensive content expertise. The author had previously conducted a Realist Evaluation (RE) of the CCTV system, which worked back from specific outcomes required by the commissioner of the Realist Evaluation. This RE methodology for CCTV has been further used by the author with eight councils across three Australian states. The second is a prospective RS of interventions to address alcohol-related harm, street-based outreach and volatile substance misuse among indigenous people. The purpose of this Realist Synthesis is to inform and assist in the design of a theory-based RE into these issues in a specific cultural and geographic context to improve service delivery.

In both projects it has been crucial that precise, disaggregated outcomes were defined. These include proximal and distal intermediate outcomes which contributed to the outcomes required by the project commissioners. To make research engagement more effective, framing these outcomes in a way which corresponded to the funders' internal continuous quality improvement processes was necessary. The commissioners of the research had conducted their own examination of the literature, and had operated these programs for a number of years. They therefore know that the outcomes (and causal mechanisms) lie at different systemic levels, both internal and external to the organisation.

In both projects, commissioners of the projects were shown a logic model diagram for how the Realist methodology applies to their project. This led to detailed discussions regarding how mechanisms link with outcomes, and the importance of context in organisations achieving their goals. In both projects also, discussions around the definition of a range of contexts, and the Realist reasoning of breaking the programs the funders delivered into an indicative set of mechanisms specific to each of those contexts was led by the commissioners of the funding, rather than the researcher. In the case of the CCTV research, the Realist model provides a framework through which practitioners can organise their implicit knowledge. In the case of the homelessness project, the Realist model provides an organising framework through which the researcher can inquire in a deeper way to link agency practices with outcomes.

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