Are we holding ourselves back – or is ‘good enough’ good enough?

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Münster

The argument

- Many in ECCA set follow '**Good enough**' approach – deliberately keeping things simple for practitioners
- But crime can be **messy and complex**; its prevention certainly is
- Key concepts in SCP & POP are blunt instruments – need **sharpening** to facilitate research and practice
- We can still simplify as necessary and appropriate when it comes to dissemination, but **don't hold back the science**
- Besides sharpening, we also need to **open minds** to wider range of concepts and disciplines to enrich our thinking, methods and collaborations
- So, I'll review **limitations** in fundamental concepts in SCP/POP, & how used by researchers & practitioners
  - **Decision, Risk, Opportunity, Problem, Solution, Routine, Activity, Likely and Guardian**
- Will consider how these might be **improved** to boost our thinking and communication.

A question of habit?

- We have got into **habitual** ways of thinking
  - Some for good reasons (especially, maintaining close connection with practice and policy)
  - But some just sloppy
- In many cases, re-reading the original ‘classic’ documents shows the authors were onto the subtler issues, but they have subsequently been **neglected**

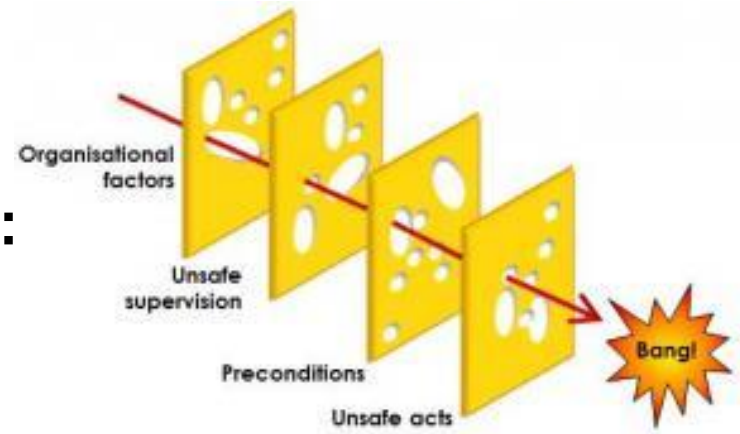
Opportunity

- It is common for opportunity to be equated with **environment, situation**
- But a full definition/characterisation needs more:
  - **Resources/capability** to exploit possibilities, cope with threats/hazards
  - **Goal/s** – opportunity to achieve **what**?
    - Note that ‘risk, effort, reward’ all relate to **goal states**
  - **Presence or access** (cf ‘present threat’)
  - **Dynamics** – Encountering, Maximising, Grasping, Creating opportunity (takers and makers)

Opportunity – unresolved issues

- **Necessary v sufficient conditions**
  - Ron dodged this issue but we may need to resolve it for computer simulation e.g. agent-based modeling
- Relation of opportunity to
  - Awareness space
  - Crime precipitators – 2 stage model not fully assimilated
  - Temptation, moral rules, rule-breaking (Wikström)
  - Affordance (Gibson)
  - Behavior Setting in Ecological Psychology
  - Niches in ecology
  - Adaptation, fitness landscape in evolution
  - Scripts – dynamics, opportunity **path:** relates to Reason's 'Swiss Cheese model' of accident causation

+ Conflict – that predates or originates within situation



Problem

- Equating a Problem with an emergent crime pattern rather than a bureaucratic/admin task was a great advance by Goldstein, but beware limitations of **inductive** approach
- In design terms this leads us to focus on
  - **Vulnerability-led designs** rather than wider trade-offs e.g. with privacy, carbon footprint
  - What we want '**less of**' rather than '**more of**'
  - The **presenting problem**, when it might benefit from
    - **Reframing** (e.g. litter bin security threat = false alarm problem; Kings X **riots** problem > **festival**) or
    - '**Appreciative enquiry**'

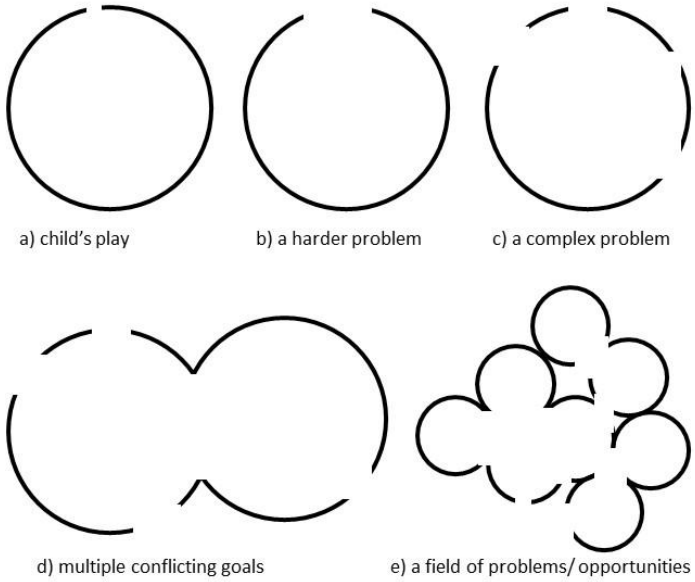
Problem

- In wider engineering approaches, 'problem' is conceived more broadly (Borrion et al. in prep)
  - A problem is 'the difference between a goal state and a current state' (Jonassen 2000)
  - Problem solving is the 'generation and selection of discretionary actions to bring about a goal state' (Scandura 1977)
- A problem is
  - Some set of environmental circumstances that hinders an agent, equipped with certain resources, from immediately achieving a particular goal/goals
  - What stops the realisation of an opportunity from being child's play (Ekblom 2016)

Cf PCT control of disturbance rel to goal/s

Problem

- Symmetry between opportunities and problems insufficiently noted



- This flip of perspectives can be useful regarding
  - **Conflicts**, where problems and opportunities are intimately entangled: one party's opportunity will invariably be another's, or the state's, problem
  - **Arms races**, where each move sets a problem for the opposing party to come up with a countermove

Risk

- Confusion
  - Risk **to whom** – often unspecified (we assume the offender, or the victim)
  - Risk as **likelihood** vs **possibility, likelihood, harm**?
- **Hazard, risk, threat** – poor linkage with security approach
  - E.g. threat as perpetrator **intent**, **capability**, **presence/access**
- ISO 31000 – risk = **effect of uncertainty on objectives** – that effect could be **negative or positive**
  - This symmetry helps us consider both offender and preventer perspectives

ISO 31000 risk concept includes **source** – which is the intentional offender. Other hazards are unintentional human, natural accident etc. Beware of confusing with blame/responsibility

Decision

- Risk, effort, reward are not independent, as sometimes assumed – but **interchangeable currency**
- **Each RC element has associated likelihood** – it's limiting to use 'risk' as simple equivalent to 'harm' or 'danger', rather than referring more specifically to **risk of harm, of wasted effort, of reduced reward**
- We too often ignore what lies **between** decisions – behaviour, performance, scripts, executive function – so not just a matter of rational choice but **rational action** to stick with the decision
- Perspective of **frustrating offenders' goals and disrupting their plans** has been overshadowed

Decision

- Uneasy fit between **causation and choice – caused agent** concept (caused, and causing) and dual discourse
- RC as used in SCP doesn't handle the relationship between **honest** vs **dishonest** choice of behavioural alternatives in situ
  - Just focuses on a) **criminal involvement** more distally, then b) **go-no go** in situ
  - **Honest choice** relates to SAT, cooperation not cheating, and perhaps 'Cloward & Ohlin-type' honest opportunities to do well by legitimate means

Hidden element – 'Do I have the resources to carry this off satisfactorily?

Decision – Dumb and Dumber? Not

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"Our study reveals for the first time how just two neurons can create a mechanism in an animal's brain which drives and optimises complex decision-making tasks.

It also shows how this system helps to manage how much energy they use once they have made a decision."

Deter

- **Deter** often used as all-purpose synonym for any way of influencing offenders to reduce criminal behaviour
- If we're serious about the **mechanisms** approach for research and practice, deter should refer to one specific mechanism – i.e. influencing offender by **increasing perceived hazards and threats of committing crime**
- **Discourage** (and a range of other **D**s) are different mechanisms for practitioners to apply

Routine Activities

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ennial issue of whether RA is a **theory or a**
spective – the theory surely lies in what
chanisms bring the elements together

- This usually means **change**
  - Again, this was in the 1979 original
  - Felson and Eckert (2015) return to this theme to argue e.g. that technological change, acting through RA, is vital to understand longer-term trends in crime/ prevention

Should RA explanation now be null hypothesis, in search for more novel/informative stuff? Likewise Rational Choice

Routine Activities

- RA commonly seems referred to in the manner of a **liturgy** – 'and this finding is consistent with RA'
- RA historically treated as **alternative hypothesis** in our research… should we now treat it as **null hypothesis**?
  - Should ask when does RA **not** apply?
- And when RA **does** apply, we should focus more on what **causes the elements to come together**
  - Will give better connections with Crime Pattern Theory (e.g. Vancouver Skytrain)
  - With Rational Choice
- There are also issues with some of RA's individual **elements**

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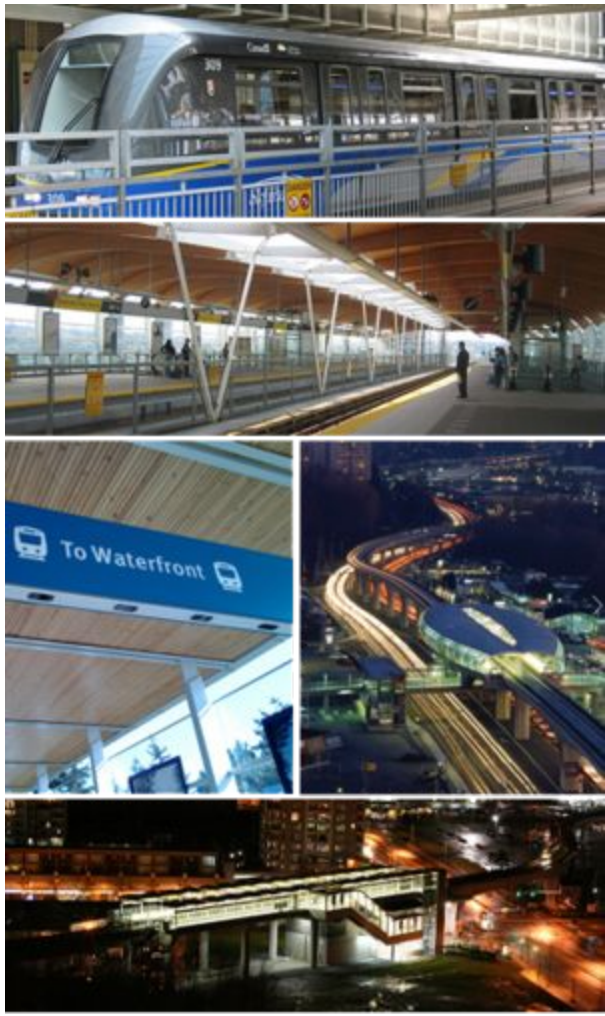

Agree we need theoretical framework that explicitly contains offender concepts/attributes rather than leaving them as cardboard cutout placemarker.

Routine

- **Routine** is fine for **crime generators**
- But in many cases, we are considering **crime attractors**
- These are **far from routine**, where offender is
  - **Seeking** out places suitable for offending (foraging)
  - Actively **creating** situations for ambush, fraud etc
- Can vary **dynamically** – what starts as routine becomes sought after on encountering success
- Then we have waterholes, crime radiators etc

Conjunction is more all-encompass than routine a includes **all** th causes that br the prox circumstances together

And is routine best term.. Is i routine, or is it incidental/ exogenous causes e.g. sc changes? Nor routine and changed routi

Activity

- Neither RA, Scripts approach, nor Awareness Space clearly articulate difference between behaviour that is
  - **goal-seeking, v**
  - **incidental or**
  - **habitual**

Fundamental units of action

Some confusion, inconsistency and differing language for

- Act
- Attempt
- Event
- (Security) compromise
- + Attack

Likely

- In the original RA paper, the offender is variously called **likely**, or **motivated**
- Unfortunately, most writers now just refer to motivated, missing the opportunity to mesh with offender capability, and '**restrict resources**' in 25 Techniques
- It's only **Guardians** whose capability is routinely considered
- Likely is thus preferable, as it includes reference to the offender's **capacity/resources**, while motivated does not
- Likely (and Presence) also link to 'threat'

Guardian

- The guardian concept was differentiated/ extended to become **guardians of targets, managers of places, handlers of offenders**
- Despite this useful differentiation, many still use guardianship to cover **all** these roles
- But in any case I prefer the broader 'Crime **Preventer**' term to support a more open-ended conception of roles – designer, engineer, trainer…
  - **Supercontroller** doesn't cover these
- And the Crime **Promoter** concept is missing – all those people/organisations that need regulating or otherwise mobilising to become preventers

Does it matter?

- I've been standing on shoulders of giants whilst simultaneously treading on their toes… but it's a question of…
- **Ontology**
  - Where **computer science** meets **philosophy** & **controlled vocabulary**
  - A formal naming and definition of the types, properties, and interrelationships of the entities that really or fundamentally exist for a particular domain of discourse… especially important for
  - **Computational approaches**, e.g. agent-based modelling
  - **Cybercrime** prevention
- Can help…
  - Link the loose conceptual ends of Crime Science/ SCP/ POP together
  - Connect with other academic disciplines
  - Tighten up what we communicate to practitioners, help them think more sharply and open-mindedly, cross-link to other approaches to security

– A key attribute of anything that aspires to be a science

To put it bluntly, I rest my case

To add for article

- Causal v phenomenol persp e.g. on decisions – view of/from offender, caused agent. Controversy between narrow rational choice yet view of active decisionmaking agent (Clarke and Cornish) vs richer yet causal view of precipitation… (RW) plus the phenomenol side of SR, plus sensemaking. Plus the caused agent implicit in SAT.
- Vulnerability – attack surface from cyber security. Useful for material world?
- [Jo H] As described by Yang & Gilbert, (2008; p7) a mechanism is defined as a theoretical construction of "the processes or sequences of events that causally link initial conditions and outcomes." For example, the mechanism of a crime event (according to routine activity theory) involves the particular overlapping space-time activities of offenders and targets in the absence of a capable guardian (Cohen & Felson, 1979).