Definitional System of Risk and Security

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This is a first attempt to develop an integrated and rigorous suite of definitions spanning the unclear divide between the fields of crime prevention and security. The definitions initially relate to the theft-centred risks, and counterpart security properties, attached to domestic electronic consumer products such as mobile phones or music players. The intention is, in due course, to realise the potentially much wider applicability of the framework to products and systems in general; and to connect with the terms and concepts under development within both Conjunction of Criminal Opportunity – Dynamic and Crime Prevention Through Environmental Design.

Origin and Background

The definitions originated in an invited response to Project MARC, an EU-funded investigation into the possibility of crime proofing domestic electronic consumer products. A full explanation and development of these definitions is in Ekblom, P. and Sidebottom, A. (2007) ‘What do you mean, ‘Is it secure?’ Redesigning language to be fit for the task of assessing the security of domestic and personal electronic goods.’ European Journal on Criminal Policy and Research.

Abstract

Project MARC aimed to develop a mechanism to assess the risk of theft of consumer electronic products, and their corresponding security; and to devise an operational scheme for EU level to influence manufacturers to make their products less criminogenic. The project encountered serious difficulties in the assessment process due, among other things, to limitations of concepts and terminology. This paper describes and analyses those limitations; discusses an approach to redesigning language that draws on biological and risk management concepts; proposes a basic grammar of risk and security covering their dual dimensions of probability and harm (underemphasised in crime prevention); focuses on sources of risk centred on the product, based on crime scripts and criminal motivation; and explores wider ecological and evolutionary issues. It makes suggestions for improving any assessment scheme and raises wider issues on how crime science should tighten its terminology and bring together approaches to crime prevention and risk management. The present contribution comprises proposals for discussion and development rather than a perfected schema.

The main project MARC report by Rachel Armitage and Ken Pease is in the same issue.


Project MARC itself originated in proposals by Ron Clarke and Graeme Newman in:


This in turn drew on Ron Clarke's concept of Hot Products – those at heightened risk of theft by virtue of being ‘CRAVED’, ie having one or more of the following properties:

Notes

Terms in italics are defined elsewhere in this glossary. Every effort has been made to design terms to interlock in a consistent semantic network.

Product refers to consumer electronic products such as mobile phones, Personal Digital Assistants (PDAs), Laptop computers and MP3 music players. In due course this framework will be extended to apply to environments and enclosures and more generally linked to CPTED

Update history:

Updates not yet incorporated
2. New term: **Criminally mitigating** – A property of a product which counteracts and diminishes the criminal harm caused by that product. Update suggested by PE July 2007.
1. **Feature** has been changed to mean ‘any distinguishable structural element’. ‘Feature’ as used in this glossary should now be relabelled **property**. Update suggested by PE April 2007.

The Glossary

**Affordance**
The offender’s capacity to see (criminal) utility in an object.

**Attractive**
Any criminogenic feature of product which causes the offender to form the intention to steal it, whether because of its perceived value, vulnerability (including visibility and distinctiveness) and capacity for realisation of value. Attractiveness is also in the eye of the offenders, in terms of what they themselves value and how well-equipped they are to take the product and realise its value.

**Bycatch**
Sea-fishing term denoting unwanted fish caught with the wanted ones. In crime prevention, property stolen incidentally through being associated with the target product, eg by being in same target enclosure (handbag, pocket, car or house).

**Crime prevention**
Reducing the risk of criminal events in terms of their probability of occurrence and consequent harm, by intervening in their causes.

**Criminally hazardous**
A product with the potential to cause harm through a criminal event such as theft or robbery.

**Criminocclusive**
A product’s features which lessen the probability of its theft.

**Criminogenic**
A product’s features which heighten the probability of its theft.
Feature
Any distinguishable physical or informational property of the product, which could be incidental or a deliberate adaptation by design.

Habitat
Ecological term for environment where a particular species population lives, and (through evolution) are adapted to. Crime prevention equivalent could be used to denote the environment/s where a particular product or a set of products typically exist. The Risk environment is the risk dimension of the habitat.

Harm (harmful)
Detrimental effect of an event to a product and/or to people, institutions and systems associated with it. Includes harm to product itself during/after the crime; harm to owner or other parties through loss or damage of product and its informational contents; harm to owner or other parties through collateral loss of or damage to enclosure/carrier (bag, house, car) and any bycatch of other goods taken and perhaps discarded; harm to owner/carrier/householder from theft or robbery event itself; propagation of further harm through misuse of product.

Hazard
Something with the potential to cause harm, e.g. through a theft event.

Herd immunity
Public health term denoting a type of immunity that occurs when the vaccination of the majority of the population (or herd) provides protection to unvaccinated individuals. Crime prevention equivalent is where criminals’ belief that secure products will dominate the ‘catch’ makes the attempt unworthwhile.

Incidental Security
Features which unintentionally reduce a product’s risk of theft.

Insecure Product
An insecure product is one with strong criminogenic, susceptible and criminally hazardous features, but without effective security adaptations/features to reduce the elevated risk of theft to some acceptable level of both probability and harm. An insecure product is both vulnerable and valuable to the offender.

Product Resilience
A product’s potential to resist, limit or recover from harm sustained during/after the theft event.

Realisation of value
The process whereby possession of the stolen valuable product is converted into enjoyment, status display, misuse or resale.

Risk
1. the probability of a criminally hazardous event (here, theft), happening to the product; and
2. the harmful consequences of the event to the product and more significantly to various parties such as the owner/carerrier of product or the home it is kept in, or some wider institution or system.

Risk environment
The environment or habitat of a particular product (or other entity):  the place or system within which it is located, and which contains sources of criminal risk for it, including offenders and promoters; and sources of security, including various preventers, enclosures etc.

Secure, secure product
Something that is secure is less at risk of theft than expected on the basis of its criminogenic, susceptible and criminally hazardous features, because of specific adaptations to its risk environment. A secure product, more specifically, is one whose risk of theft is less than...
expected on the basis of its **criminogenic, susceptible and criminally hazardous features**, because it is deliberately adapted to its expected risk environment to be **criminocclusive, resilient in itself to harm**, designed for incorporation in a **resilient system** and **shielded against misuse**.

**Security**
Deliberate action by crime preventers (here, on a given product or its environment) which reduces product’s risk of theft.

- **Primary security** – reduces probability of harmful event
- **Secondary security** – if event does happen, limits harm as it unfolds to product, owner and beyond – i.e. increases **resilience** of product and system.
- **Tertiary security** – limits propagation of harm that may occur post-event – i.e. increase **shielding against misuse** of product

**Security adaptation**
A **security feature** deliberately designed to make the product more **secure** against the **risks** typically to be encountered in its expected **habitat** or **risk environment**.

**System resilience**
The potential of the owner/user, other parties and information systems associated with a certain product, to resist, limit or recover from harm sustained during/after theft event.

**Threat**
A subset of hazard originating from malevolent human intent.

**Valuable product**
A product with the potential to gratify some motivation of the offender – including for enjoyment, status display, misuse or resale. See also **realisation of value**.

**Vulnerable product**
Any product whose own features enable it to be seen and taken by the offender. Vulnerability incorporates all criminogenic factors associated with theft of product except the motivation it engenders in the offender.

**Susceptibility**
The degree to which a product, its owner or related systems, people or institutions are capable of being harmed by a criminal event or its consequences.