



‘DIRTY SCIENCE AND MURKY LAW’

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Professor Lauren Devine Lauren.Devine@uwe.ac.uk

Mr Stephen Parker Stephen3.Parker@uwe.ac.uk

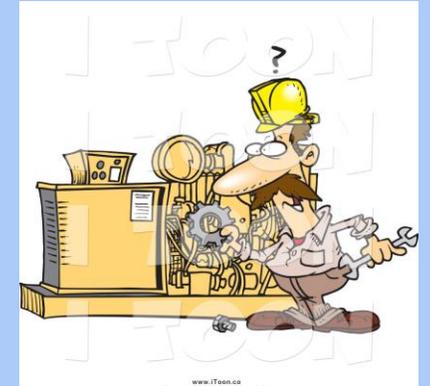
Social Justice Research Group, University of the West of England, Bristol, UK

Our research programme at SJRG

- **Our projects are investigating various threshold elements of safeguarding systems:**
 - Safer children? – The threshold for referrals from schools to Children’s Social Care (Vice Chancellor’s ECRG)
 - Rethinking child protection strategy – Deconstructing the underlying ideology of child abuse detection and prevention (ES/M000990/1)
 - The care cases crisis – Investigating why the numbers of children entering State care are going up when the ideology is designed for them to go down (JUS/43090)
 - The risk of risk – Assessing the viability and limits of the use of predictive algorithms and AI in child protection and safeguarding (ES/R00983X/1)
- **Drawing together the issues raised, we summarise them as showing:**
 - The ideology is flawed. It creates a self-perpetuating and self-justifying cycle rather than a clear rationale and workable solutions (Devine and Parker, 2015);
 - The use of technology is making the situation worse by increasing the number of false positives and false negatives;
 - A combination of these issues, conflation of Ss.17 and 47 Children Act 1989 in policy and in a mixed ‘Children’s Social Care’ budget causes additional problems (Devine, 2017).

‘Dirty Science’

The problem for safeguarding: fallibility of the ‘elegant theory’ of machine prediction & prevention of child abuse



- An ‘elegant theory’: one that is economical and imaginative, and sometimes breathtakingly simple once explained, one that demonstrates an ontological simplicity. A deeper explanation might also note that the theory must also be plausible and reliable on testing.
- Predictive systems used in social work to predict and prevent child abuse draw on germ theory to justify their approach: An elegant theory.
- Historical analysis of the genus of germ theory in the UK’s child protection system dates to the late 1980s. Germ theory presents this seemingly elegant solution by drawing on medical ontology: if the source of a problem (disease) can be identified, isolated and eradicated then the problem ceases to exist. By analogy it is argued that if the problem is not isolated then the problem (disease) will spread. Applied to germs, this has saved lives and eradicated epidemics. Applied to child abuse the theory fails at each stage.
- Thus the flawed ideological basis presents a theoretically elegant but flawed science of child abuse eradication: Child abuse is not analogous to a disease and cannot be eradicated by predicting (identifying the unhygienic germs), and removing children to stop the spread of disease (quarantining).

An acceptable margin of error?

- We analysed the data from a 10,000 family predictive study in the UK.
- This study underpinned the risk prediction movement in ‘child rights’ based child protection systems.
- **The overall prevalence of abuse in the overall population was 0.4%**
- **The percentage of false positive predictions was 97.3%. Affects the whole population.**
- **The percentage of false negatives in the target population was 17.5%. Affects a percentage of children actually being abused.**

Kevin Browne - False Positive Predictions

Derived from Figure 1 at p.71 of Browne et al		Browne et al analysis scaled to 2014 population (England)	Comments/Notes
Population	10,000	11,500,000	Children in England
Abuse rate (prevalence)	0.40%	0.40%	using Browne et al rate
Number abused	40	46,000	c.f. NSPCC estimate of 10% abuse i.e. 1,150,000 children
Number not abused	9,960	11,454,000	
Apply Browne et al checklist			
82% sensitivity - Correct identification (Number correctly predicted as abused)	33	37,720	c.f. 2014 CPP register number of 48,300
82% sensitivity - Missed identifications (Number incorrectly predicted NOT abused)	7	8,280	
88% specificity - false alarms (Number incorrectly predicted as abused)	1,195	1,374,480	c.f. 2014 number of referrals of 657,800
88% specificity - non-abusers identified (Number predicted correctly NOT abused)	8,765	10,079,520	
Efficiency of detection process	2.7%	2.7%	Extremely low ratio
Percentage of false positives	97.3%	97.3%	Extremely high error rate
Population identified as likely abusers	1,228	1,412,200	c.f. actual 2014 referrals of 657,800

‘Murky law’

Child rights & family support models: A ‘framing difference’

Child Rights model

- A **child rights-focussed system**: defined by a legal and policy emphasis on the primacy of the rights of the child rather than focus on whole family function (Waldegrave, 2006, Devine 2015). Deviant family members are identified so the child can be protected from them.
- The rationale for the prominence of child rights follows recognition that children constitute a vulnerable group in society and thus need protection, a well-emphasised point in literature and in international law and policy (eg Fortin (3rd ed, 2012; United Nations Convention on the Rights of the Child (UNCRC), effective from 15th January 1992 in UK).
- Many jurisdictions thus adopt a child rights-focussed approach to legislation designed to protect children including the UK, Northern Europe, Australia, New Zealand, the US and Canada (Waldegrave, 2006; Gilbert, Parton and Skivenes, 2011; Devine, 2015).

Family Support model

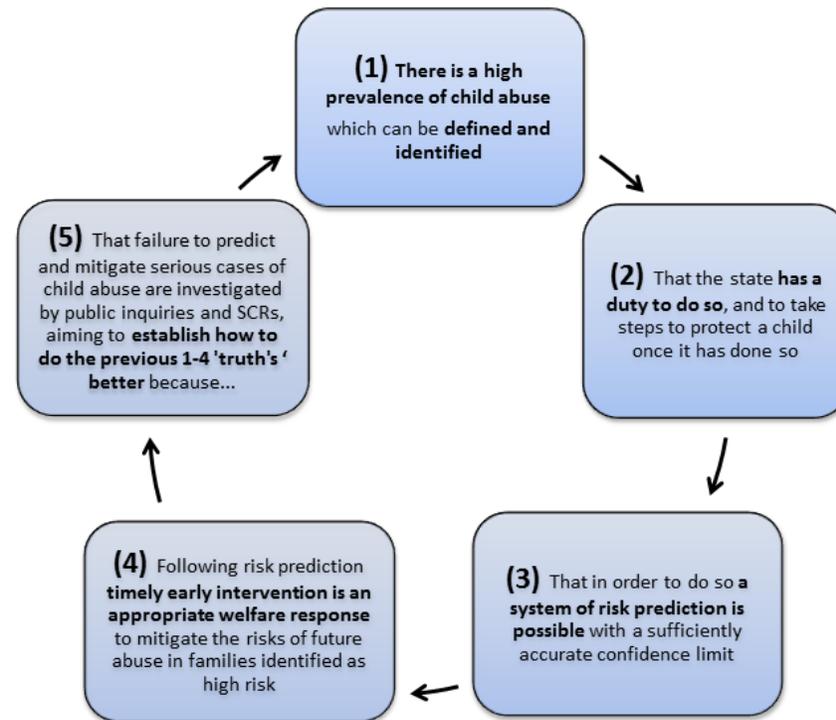
- The **family support model** is adopted in most countries in Continental Europe.
- This model frames child welfare in the context of the family, arguing that family dysfunction is a complex, social problem treated with supportive interventions.
- The strength of this model is the prioritising of the child as a member of a family unit, and the holistic approach to addressing complex family problems.
- The weakness of this model is that in cases of serious and systematic child abuse a child can be left with a family who will not, or cannot address problems.

Constructing the ‘invisible family’

- We noted in all our project’s findings the negative impact on wellbeing, budgets and child abuse detection of a ‘safeguarding system’ where family support is argued to be delivered, albeit in the framework of a child rights focussed system.
- We identified an underlying 'theory of child protection' intended to protect and strengthen the status of children within the family, and we critique this model using social outcome and financial data.
- In conflating child rights with the ‘refocus’ post-1995 towards family support delivery within the child rights framework, our research found that the UK fails to achieve either effective child rights or family support.
- We found that giving child rights primacy results in a ‘rights pecking order’. The ‘family’ has become a fluid concept in legal decision making.
- Although there are legal rights relating to the family (Article 8 rights in the UK) and legislation to ensure all parties to an action are treated equally, courts have adhered to the primacy of child rights in its decision making (Herring, 1999; London Borough of Greenwich v EH and AA and A (Children) [2010] EWCC 61 (Fam)).
- The outcomes from this model are not encouraging. Our research identifies an underlying ideology underpinning the operationalisation of child protection and safeguarding systems that perpetuates a systemic problem:

The 'theory of child protection circuit'

The 'Truths' Underpinning the Theory of Child Protection



Combining dirty science and murky law

- The combination of the ‘dirty science’ and the ‘murky law’ results in population level predictions are applied to individuals identified as vulnerable.
- Where children are involved, ‘vulnerable’ is swiftly construed as ‘risky’.
- The ‘risky’ have a series of hurdles to overcome to demonstrate they are ‘safe’.
- Given the high error rate and inbuilt presumptions on the safeguarding side of the system, this is a problem that falls between the technology community and the legal community. Neither have responsibility for its resolution.
- Our work is focussing on the creation of a technologically and legally ethical system protocol, with a ‘dashboard’ monitoring system.

Unintended consequences: the ‘welfare/policing dichotomy

- Consequence is that abuse detection has fallen over 25 years from 24.1% to 7.4%
- Costs have dramatically increased
- The numbers of false positives has increased to 88% of referrals (families needlessly referred and potentially harmed) (Devine, 2017)
- The number of false negatives (serious and fatal child abuse) remains alarmingly high.

Ratios of referrals which did substantiate significant harm (or risk of) : total number of referrals

Year (1 April to 31 March)	Ratio of referrals where Significant harm (or risk of) substantiated : Total number of referrals	
	(All abuse categories)	(Core abuse only)
1991 - 1992	24.1%	9.2%
2008 - 2009	6.2%	1.2%
2013 - 2014	7.3%	1.1%

In light of these issues, does (and should) statutory ‘safeguarding’ operate as a mechanism for addressing deviance, or a service-orientated, therapeutic response?