Two Approaches to EBHP →
Two Sets of Almost Insoluble Problems

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Two approaches to policy
Focuses on intervention-outcome pairs
As in ‘What Works’ initiatives
- 7 UK What Works Centres
  - Including NICE!!!
- US Dept of Education’s What Works Clearing House
- J-PAL
- Lots of work at DFID
- …
Focuses on the underlying social, economic, geographic, and cultural arrangements that afford causal pathways from intervention to outcome.

‘Systems’ approach

As in

- Eileen Munro: “Child protection is a system’s problem.”
- Nature Conservancy
- …
Intervention-centered approach

- **Focuses**: on characteristics of the policy
  - Does it work?
  - For whom, when, where?
  - How to implement it
  - How much does it cost?
  - What are the side effects?
- **Studies**:
  - Repeatable causal processes
- **Requires**:
  - Evidence to support generalizations or transfers of policy outcomes

Context-centered approach

- **Focuses**: on the arrangements in the target context
- **Studies**: what causal processes these afford; what changes can be made so that they afford more desirable processes
- **Requires**:
  - A model of what’s happening in the target context
  - An understanding of how the powers and arrangements afford this
  - A plan to change what’s happening, via producing either
    - A new intervention, old structure
    - New structure
  - Evidence for all of this
Intervention centring
Each concept within the question has to be carefully defined, as this will affect which studies are included or excluded... Thus a review on the effects of homework on children would require clarity of what was meant by both ‘children’ and ‘homework’, and also what ‘effects’ were to be considered.
One study reviewed research evidence relating to accidental injury and risk-taking behaviour by young people aged 12-24.
What does the evidence tell us about the effectiveness and efficiency of committee work?
Single-sex settings seem to be effective in reducing stereotypical gender constructions when the aim is …
### 3.15.1 Captive breeding

Based on the collated evidence, what is the current assessment of the effectiveness of interventions for captive breeding?

<table>
<thead>
<tr>
<th>Likely to be beneficial</th>
<th>Unknown effectiveness (limited evidence)</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Artificially incubate and hand-rear birds in captivity: raptors</td>
<td>• Artificially incubate and hand-rear birds in captivity: bustards</td>
</tr>
<tr>
<td>• Artificially incubate and hand-rear birds in captivity: seabirds</td>
<td>• Artificially incubate and hand-rear birds in captivity: cranes</td>
</tr>
<tr>
<td>• Artificially incubate and hand-rear birds in captivity: songbirds</td>
<td>• Artificially incubate and hand-rear birds in captivity: gamebirds</td>
</tr>
<tr>
<td>• Artificially incubate and hand-rear birds in captivity: waders</td>
<td>• Artificially incubate and hand-rear birds in captivity: parrots</td>
</tr>
</tbody>
</table>

- Use captive breeding to increase or maintain populations of storks and ibises
  - Likely to be beneficial | Based on: 4 studies

- Use captive breeding to increase or maintain populations of raptors
  - Likely to be beneficial | Based on: 5 studies

- Use captive breeding to increase or maintain populations of bustards
  - Unknown effectiveness (limited evidence) | Based on: 4 studies

- Use artificial insemination in captive breeding
  - Unknown effectiveness (limited evidence) | Based on: 5 studies

- Use captive breeding to increase or maintain populations of pigeons
  - Unknown effectiveness (limited evidence) | Based on: 1 study

- Use captive breeding to increase or maintain populations of songbirds
  - Unknown effectiveness (limited evidence) | Based on: 3 studies

- Artificially incubate and hand-rear bustards in captivity
  - Unknown effectiveness (limited evidence) | Based on: 2 studies
The intervention-centred approach makes most sense when:

- The intervention has an inbuilt ‘tendency’ towards that outcome
  - As with gravity wrt *making heavy bodies fall*
- Do the bulk of public health interventions have an inbuilt tendency to the targeted outcomes?
Killing ticks will reduce spread of lime disease??

Compare: Killing badgers will reduce the spread of bovine TB.

Maybe: Killing badgers reduces the immediate number of badgers??
Giving deworming pills to children

- No inbuilt tendency toward improving reading scores
- This outcome depends on a complex underlying social system that allows – or not – the sequences of changes supposed to lead to better reading scores
- Maybe deworming medicine has a tendency to kill intestinal worms in children
- Even that depends on more underlying structures
  - Mebendazole works by inhibiting worms’ ability to absorb sugars, by interfering with the proteins in their intestine or absorptive cells
- Happily we can take as given the structural similarity among threadworms
- Then all we have to worry about is
- Everything else!
Context-centring
Social systems are like mechanisms: they afford causal processes
US National Academy of Sciences’ To Err Is Human: Building a Safer Health System
“The title of this report encapsulates its purpose. Human beings, in all lines of work, make errors. Errors can be prevented by designing systems that make it hard for people to do the wrong thing and easy for people to do the right thing. Cars are designed so that drivers cannot start them while in reverse because that prevents accidents. Work schedules for pilots are designed so they don’t fly too many consecutive hours without rest because alertness and performance are compromised.”
Causal pathways & causal structures

Description of the underlying system that makes these likely
New child protection structures

Signs of Safety is an integrated framework for how to do child intervention work - the principles for practice; the disciplines for practitioners’ application of the approach; a range of tools for assessment and planning, decision making and engaging children and families; and processes through which the work is undertaken with families and children, and including partner agencies.
Context-centring: problems

- Too hard
- Too expensive
- Too arbitrary
Intervention centring: problems
1. The problem of the long view
Worm infections can have a huge impact on a child’s life…

- Malnutrition
- Reduced economic productivity
- Reduced school attendance
- Reduced physical & cognitive development
1. The problem of the long view
2. The Donald-Davidson problem
1. The problem of the long view

2. The Donald-Davidson problem

3. The concatenation problem
- $U \rightarrow R,$
- $B \rightarrow E$
- $U \nrightarrow E$

- $U = k,$ $U \rightarrow R,$ $R = d,$
- $B = d,$ $B \rightarrow E,$ $E = m$

Therefore: $k \rightarrow d \rightarrow m$
Where can an intervention contribute in the same way as in a study population?

Where the underlying structures that allow the intervention/outcome connection are sufficiently like those in the study population
The context-centered approach
Voodoo: when the intervention-centered approach works
Michael Strevens: Voodoo that works
• Ceteris paribus, in conditions Z, Fs cause Gs =
By way of the target mechanism \( M \), the conditions Z
and the property F bring about the property G

• When a causal hypothesis is framed it is supposed
to make a claim about a particular contextually
determined mechanism: the target mechanism

• The facts about M that make the cp causal claim
ture “are typically opaque to the scientists who
formulate and test them.”
• The reference to mechanisms is opaque but we can still put our cp claims to use

• Successes depend on
  ◦ Markers
  ◦ Cautions
System markers

- Manufactured items come with labels, logos
- God-made structures are often recognisable ‘from the outside’
- What about social systems?
Common development markers

- Democracy?
- Good governance?
- Growth/ GDP?
- Women’s participation?
- Foreign direct investment?
- …
Will deworming work here?
Cautions

- Don’t plant red acorns till the spring.
- Don’t drop the toaster into the dishwasher.
- Don’t outlaw smoking in pubs unless you can enforce high compliance.
- Watch out that MSM is legal.
- Watch out for alternative uses of malarial bednets.
• Hard to come by
• Hard to justify
Markers are fine

• IF they work, and
  IF there’s good evidence that they do
But

1. What does that evidence look like?
2. Where does it come from?

We don’t have methods for answering
Warning: the 2 approaches

Context-centred
- Takes the problem on directly
- It’s exceeding difficult
- It’s expensive
- We have no guidelines for how to do this nor for how to evaluate what’s been done

Intervention-centred
- Finesse the problem by looking for markers
- We have no guidelines for how to do this nor for how to evaluate what’s been done
Conclusion

• No matter which approach you take….
• Hedge your bets and plan for failure
Thank you

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