

Resilience: Bouncing back or Breaking away?

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Resilience: a buzzword?

 CabinetOffice

“Next generation resilience relies on citizens and communities, not the institutions of state...”

Strategic National Framework on Community Resilience

RESILIENT NATION

Charlie Edwards

Talent Enterprise
Thinkforce

RRC
Risk & Regulation
Assurance Channel

Building resilient communities
From idea to sustainable action


UK RESILIENCE
TUESDAY 22 NOVEMBER
QEII CONFERENCE CENTRE **2011**

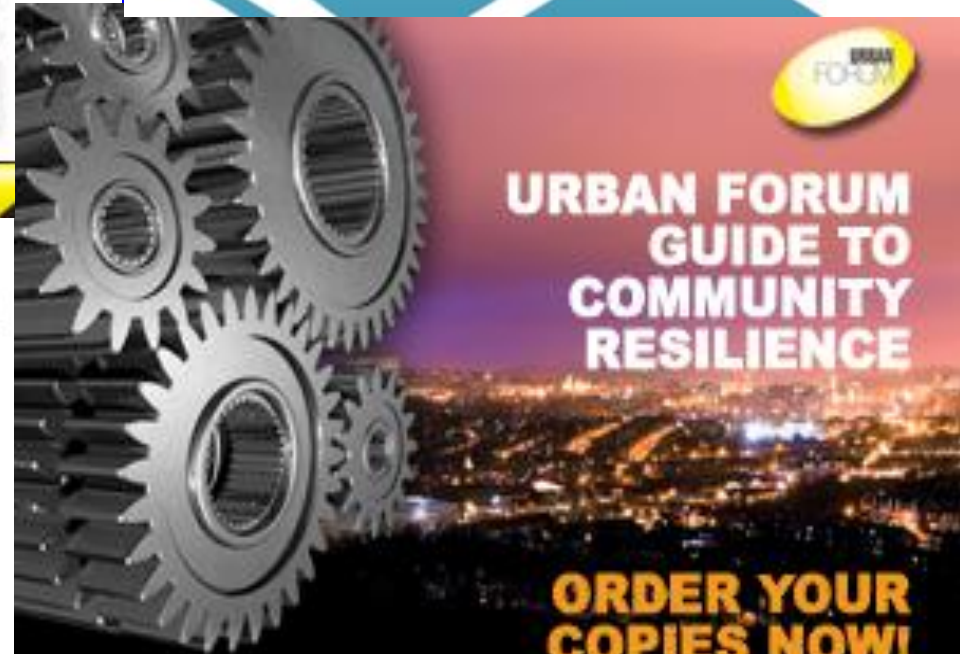

DEMOS

THE YOUNG  FOUNDATION

Building resilient communities

A Young Foundation report for Wiltshire Think Family Board

Vicki Sellick, Nina Mguni, Catherine Russell and Nicola Bacon



Outline

- Different meanings of resilience:
 - Engineering
 - Ecological
 - Evolutionary
- The political and normative implications of translating resilience from ecology to society.
- The ideological fit between resilience and neoliberal mentality

The origin of resilience

- From Latin root *Resi-lire*:
to spring back
- Used by physical scientists to
denote **resistance** to external
shocks
- Crawford Stanley (Buzz)
Holling (1973):
 - Engineering resilience
 - Ecological resilience

1. Engineering Resilience

Persistence

- “The ability of a system to return to equilibrium state after a temporary disturbance”

(Holling, 1973:17)

- Rooted in Newtonian view of the world as:
 - a mechanical machine
 - with predictable behaviour
 - kept in order by command and control

Wetherell's
Clockwork Universe
sculpture, Canberra,
Australia, 2009

Dominance of equilibrium-based resilience

- **In economic geography:** economic change as “a process of punctuated equilibrium” (criticised by Simmie & Martine, 2010: 3)
- **In disaster studies:** “the capacity of a city to rebound from destruction” (Vale and Campanella 2005)
- **In psychology:** “the ability of adults who are exposed to an isolated and disruptive event to maintain stable level of functioning.” (Bonanno, 2004:20)
- **In public policy:** Resilience is the “capacity to absorb shocks and to *bounce back* into functioning shape” (D. Omand, quoted in Demos, 2009:18)

In urban planning

Spatial equilibrium as a modernist vision of a 'good city'

- The 'good city' has “a state of equilibrium among all its respective functions.”

(The Charter of Athens, 1933)

'The plan MUST rule'

(Le Corbusier, 1933)

(Walter Christaller, 1930)

Prevalence of the ‘bounce-back-ability’ discourse

- Resilience as the “capacity to absorb shocks and to *bounce back* into functioning shape”

(D. Omand, quoted in Demos, 2009:18 emphasis added)

- The reorganisation was to ‘take all practicable steps to... respond and cope with major shocks [so] we can *bounce back* quickly’.

(J. K. MacAskill, quoted in Demos, 2009:18 emphasis added)

Bouncing back or breaking away?

- Returning to 'normal' or seeking a new normal?
- Radical transformation: a desirable outcome or a system failure?

The aftermath of 2005 Hurricane Katrina, New Orleans

Resilient urbanism

- Short term emergency response, v.
- Long term adaptive capacity building
- Disturbances are seen as abnormal shocks that challenge the global order of which they are exceptions rather than outcomes.

De-politicising tendencies

- Emphasis on emergency can:
 - foreclose proper political framing
 - override the demand for inclusivity
 - renounce or displace social conflicts
 - ostracize the arenas for justice and fairness

- The race to ‘resilient city’ status has profound distributive, environmental, and democratic implications.

2. Ecological Resilience

Adaptability

- “The magnitude of the disturbance that can be absorbed before the system changes its structure and functions...”.

(Holling, 2001:33)

- Not just **how long** it takes for the system to bounce back, but also **how much** disturbance it can take and stays within critical thresholds.

Liberty Lake, WA
with summer algae blooms, 1970s

Ecological Resilience

- A complex, disorderly & uncertain Universe
- The need for a “qualitative capacity to devise systems that can absorb and accommodate future events in whatever unexpected form they may take.”

(Holling, 1973: 21)

From ecology to society

- A total complex system in which resilience is “integral to the co-evolution of societies and ecosystems.”

(Walker and Cooper, 2011:147)

3. Evolutionary Resilience

- Challenges order, stasis and equilibrium
- Systems as complex, non-linear, and self-organising, “permeated by uncertainty and discontinuities”
(Berkes and Folke, 1998:12)
- Regime shifts happen:
 - With or without external shocks
 - With or without proportional or linear cause & effects.
- Faced with adversities, *we hardly ever return to where we were!*
(Davoudi, 2012)

Evolutionary resilience

Transformability

- The ability of complex socio-ecological systems to change, adapt, and transform in response to stress.

(Carpenter et al, 2005)

- Creating untried beginnings

A watershed system, Durban, SA

- Breaking away from undesirable 'normal'

Evolutionary resilience

- Not a fixed *asset*, but a continually changing *process*
- Not a *being*, but a *becoming*
- May emerge when systems are confronted with stress

*The world breaks everyone and afterward
many are strong at the broken places.*

Ernest Hemingway, *A farewell to Arms* (1929)

Adaptive Cycle

(Holling, 1986)

(Pendall, et al, 2010:76; adapted from Gunderson & Holling, 2002)

Adaptive cycle

- As systems mature, resilience is low: ‘accident waiting to happen’
- When systems collapse, a window of opportunity opens up for alternative pathways
- Creative destruction phase is the time of transformation, when a crisis can be turned into an opportunity. (Davoudi, 2012)

The 'Panarchy' model of adaptive cycle

(Gunderson, 2009:5 adapted from Gunderson & Holling, 2002)

Interactions at multiple scales, speeds and timeframes

- Small changes can amplify and lead to a ‘regime shift’.
- Large interventions may have little or no effects.
- “Past behaviour of the system is no longer a reliable predictor of future behaviour even when circumstances are similar” (Duit *et al.* 2010:367)

The butterfly effect (Edward Lorenz, dynamical systems, 1963)

Resilience in the social context

- Conceptually problematic
- Normatively contested

- Adaptive cycles are overly deterministic, not allowing for human agency

In the social context, adaptive cycles and their outcomes are ‘tendencies rather than inevitabilities’.

(Holling and Gunderson, 2002)

Manifestations of human agency

1. Ability to displace the effects of a crisis in time & space
2. Unequally distribution of agency
3. Ability to imagine and anticipate
4. Capacity to undertake organised collective action

(Davidson, 2014)

1. Displacement in time and space

- Is my resilience your vulnerability?

2. Unequal distribution of agency

- Unequal distribution of power and privilege stifles feedback mechanisms
- In ecology
 - “There are in nature no rewards or punishments just consequences”. (Westley *et al*, 2012:103)
- In society
 - some people gain, others lose in the process of resilience building.

What is resilience?

Resilience to what end?

- Is social conformity a desirable / 'natural' outcome of resilience?
- Is surviving on \$1 a day a sign of resilience or vulnerability?
- Are refugees resilient or vulnerable?
- Are all resilience good resilience?

System's boundaries

- “Resilience of what to what, and who gets to decide?”

(Porter and Davoudi, 2012: 331)

- Normative rather than technical judgements
- Influenced by power relations

3. Imagination and anticipation

- Perceiving “changes at a larger scale and longer term than our sensory abilities and immediate experience allow.”
(Davidson 2014: 1144)
- Recognising risks before they manifest
- Taking conscious and transformative steps to attenuate risks
- Diminishing, sustaining or enhancing resilience by being **prepared**.

4. Capacity for coordinated collective action

From self-organisation to self-reliance

- To be resilient individuals should “pull themselves up by their bootstraps and reinvent themselves in the face of external challenges”.

(Swanstrom, 2008:10)

Withdrawal of government's support in the name of resilience

- “If the Government takes **greater responsibility** for risks in the community, it may feel under pressure to take increasingly more responsibility, thereby **eroding** community resilience”. (RRAC, 2009:6 emphasis added)

An ideological fit with neoliberal mentality

- Hayek: theory of ‘spontaneous order’:
 - Social order emerges from the interaction of self-serving individuals using market mechanisms.
- Criticism of the state-engineered equilibria of Keynesian demand management:
 - Social systems are like biological systems newly defined by scientists as complex, adaptive and non-linear. (Hayek, 1974)

Self-reliant resilience

- Liberal individualism “amputates the individual from the organic body ... plunges him into the unknown and perilous world of the struggle for survival.”

(Norberto Bobbio, 1990:43)

- Resilience: a measure of the fitness to survive in the turbulent world
- Reiterating the Darwinian law of natural selection and the survival of the fittest

Self-reliant resilience: a new ‘existential yardstick’ of a responsabilised self

- *From* the state as provider of ‘ontological security’ in times of hardship, (Anthony Giddens, 1990)
- *To* citizens carrying “the weight of the world on their shoulders”, and becoming “responsible for the world and for themselves as a way of being”.
(Jean Paul Sartre, 1957:51)
- Redrawing the boundaries of citizenship: (Rorty, 1999)
 - Being a ‘good’ citizen necessitates measuring up to pre-defined notions of resilience.

Over-emphasis on self-reliance

- Reinforces individualisation of responsibility
- Legitimizes withdrawal of the state's support from vulnerable communities
- Amplifies neoliberal mentality

Over-emphasis on the return to pre-defined normal

- Maintains the status quo
- Negates transformative opportunities for breaking away from undesirable normal
- Stifles creativity and novelty by formulaic procedures

A value choice

- Between:
 - Neoliberalism, social Darwinism, atomisation and competition? Or,
 - Social democracy, fairness, collective responsibility and solidarity?
- Pursuing resilience is never a value-free, neutral goal
- It is always charged with normative questions such as:
 - **Resilience from what, and to what end?**
 - **Resilience for whom, and who gets to decide?**

Further details and the references can be found in

- Davoudi, S. (2012) Resilience: A bridging concept or a dead end? *Planning Theory and Practice*, 13 (2) 299-307
- Porter, L. & Davoudi, S. (2012) The politics of resilience for planning: A cautionary note, *Planning Theory and Practice*, 13(2):329-333
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- Davoudi, S. (2014) Climate change, securitisation of nature and resilient urbanism, *Environment and Planning C*, 32(2)360-375
- Davoudi, S. (forthcoming) *Governing through resilience*