NUFFIELD DEPARTMENT OF PRIMARY CARE HEALTH SCIENCES

UNIVERSITY OF OXFORD

Multi-stakeholder health research systems

What do we know about working in partnership?

Professor Trish Greenhalgh

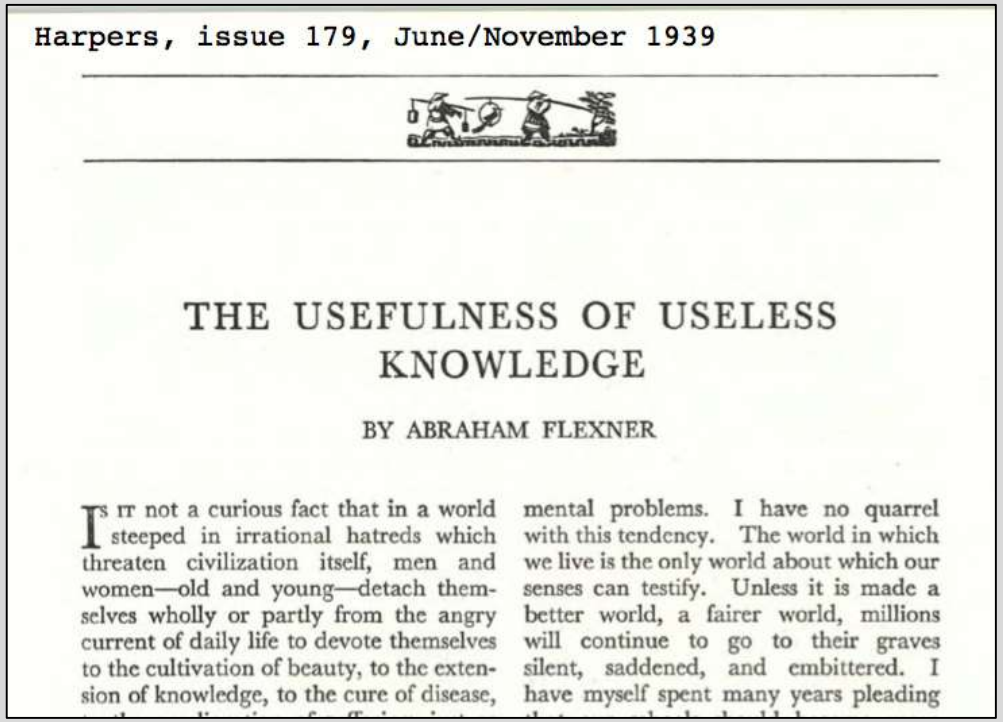
Annual NHS R&D Forum

Stratford-on-Avon, 23rd May 2016

Key messages

1. Increasingly, healthcare research occurs in complex, multi-stakeholder systems.
2. Potentially, this increases the impact of research – but that's not guaranteed.
3. To co-produce high-quality, high-impact research, multi-stakeholder research systems need to be led and governed in line with the evidence base.

Flexner 1939: Leave scientists to do science



Harpers, issue 179, June/November 1939

THE USEFULNESS OF USELESS KNOWLEDGE

BY ABRAHAM FLEXNER

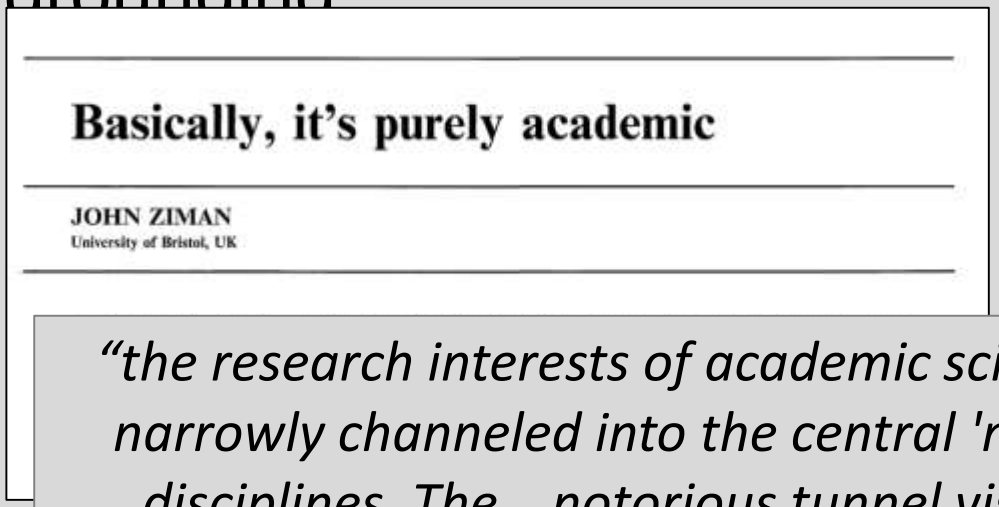
Is it not a curious fact that in a world steeped in irrational hatreds which threaten civilization itself, men and women—old and young—detach themselves wholly or partly from the angry current of daily life to devote themselves to the cultivation of beauty, to the extension of knowledge, to the cure of disease, mental problems. I have no quarrel with this tendency. The world in which we live is the only world about which our senses can testify. Unless it is made a better world, a fairer world, millions will continue to go to their graves silent, saddened, and embittered. I have myself spent many years pleading

Flexner 1939: Leave scientists to do science

Curiosity-driven, laboratory-based science ('upstream', 'foundational', 'basic')

Informs applied public health ('downstream', 'applied', 'implementation')

Ziman 1998: Science needs an applied grounding



Basically, it's purely academic

JOHN ZIMAN
University of Bristol, UK

"the research interests of academic scientists [soon] become narrowly channeled into the central 'main streams' of their disciplines. The… notorious tunnel vision of academicism restricts them to the merest glimpses of those seductive blue skies of the unfettered intelligence"

Rothschild experiment 1970-77

Victor Rothschild 1971:
"Think the unthinkable"

25% of MRC funding top-sliced and given to government departments

Government as 'commissioner': will identify problems

Scientists as 'contractors': will solve problems

Rothschild experiment 1970-77

In-depth ethnographic study (Kogan & Henkel 1983):

1. Government & science interacted awkwardly *("limited capacity to tolerate scientific inquiry that intensifies uncertainty or challenges its own working"*).

1. Priority research topics were not readily identified.

2. Research commissioning cycle fitted poorly with the policy cycle => scientists felt their work had been ignored.

3. When science influenced policy, it happened obliquely through personal relationships, continuing over time.

Applied health research in UK, post Rothschild

1988 Priorities in Medical Research (Lords report)
(there should be a research strategy for the NHS)

1992 NHS R&D Programme begins
(→ 'knowledge-driven' NHS)

1993 Health Technology Assessment Programme

1994 Culyer Report
(R&D to become a core element of NHS activity)

Applied health research in UK, post Rothschild

1999 National Institute for Clinical Excellence

2004 UK Clinical Research Collaboration
→ Clinical Research Networks, Clinical Trials Units
→ Research for Patient Benefit report
(first multi-stakeholder health research network)

2005 Best Research for Best Health
(proposed strengthening CRNs; seed idea for CLAHRCs)

2006 National Institute for Health Research (NIHR)
(the NHS's own research institute)

Applied health research in UK, post Rothschild

2006 Cooksey Review
(industry as partner, 'translational networks')

2007 Biomedical Research Centres
(support a critical mass of researchers linking with industry and the NHS)

2007 Darzi report, Tooke report
(innovation in NHS is patchy and slow; huge evidence-implementation gap)

2007-8 Academic Health Sciences Centres (Darzi)
(NHS, university, industry => escalation of innovation)

Applied health research in UK, post Rothschild

2008 Collaborations for Leadership in Applied Health Research and Care (CLAHRCs) (Tooke)

(strengthen university links to community-based NHS activity, with emphasis on applied research)

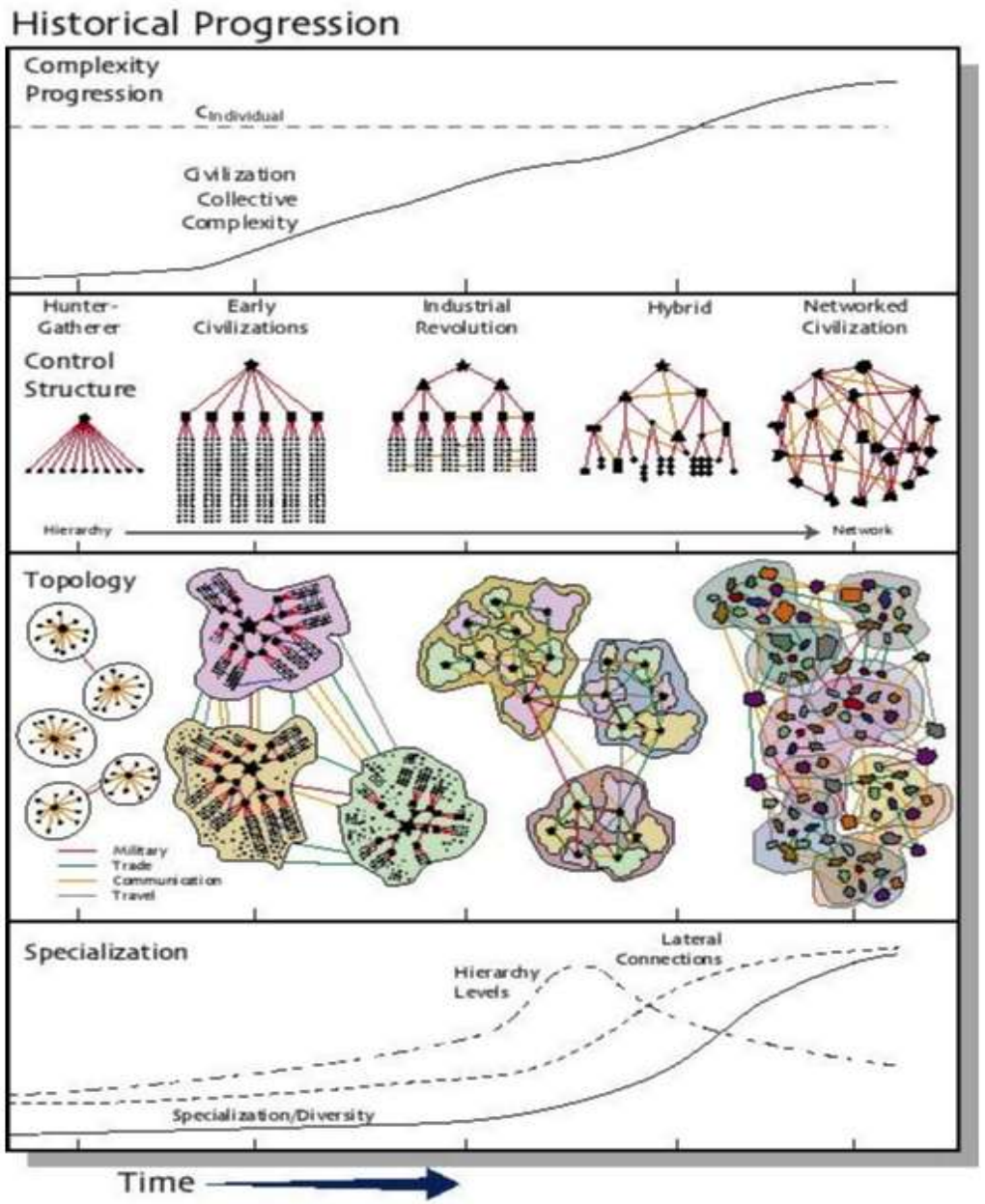
2011 Innovation, Health and Wealth report (DH)

(shift from AHSCs to AHSNs i.e. networks "to put innovation at the heart of the NHS")

2013 Academic Health Sciences Networks

(more players, more complex structures)

Networks



Bar-Yam
2002

A new taxonomy of research (Gibbons et al)

Mode 1: (traditional science)

Old-fashioned discipline-based research in universities

Mode 2: ('new science')

Collaborative knowledge production in and through multi-stakeholder networks

[Mode 0: (not science)

The research agenda is set – and distorted – by a powerful élite (industry, politicians, lobbyists)]

In mode 2 knowledge production…

"…knowledge is generated within its context of application […]. In this space, problems are identified, questions debated, methodologies developed and outcomes disseminated. There are many players, many experts (of different kinds) and an evolving collective view (though rarely a consensus) on what the questions and challenges are. To be credible with its diverse audiences, Mode 2 must be seen as socially as well as scientifically robust (hence ethical, environmentally sustainable, socially inclusive and a good use of public resources)."

Greenhalgh et al, Milbank Quarterly 2016 (in press)

Why do we need 'mode 2'?

1. Science is increasingly complex and uncertain
   "…its composition [is becoming] more heterogeneous, its values more contested, its methods more diverse and its boundaries more ragged" (Nowotny et al 2003)

2. Grand challenges and 'wicked' problems have no clear solution, need to be argued out
   "By exploiting multiple perspectives, the robust features of reality become salient and can be distinguished from those features that are merely a function of one particular view or model" (Van de Ven & Johnson 2006)

Summary so far

Multi-stakeholder health research systems were set up (in the UK and elsewhere) because a simple customer-contractor model for health research failed.

These systems bring together stakeholders from different 'worlds' (researchers, NHS, policy, industry, patients and the public) so as to co-produce research knowledge *within its context of application*.

Conflict is inevitable. The leadership/governance challenge is to channel this conflict productively.

Research on multi-stakeholder health research systems

'Research on research'. Mostly qualitative, naturalistic, ethnographic. Written up as case study.

Qualitative = words, pictures, action (not numbers)

Naturalistic = in the real world (what does happen, not what should happen)

Ethnography = *"the scientific description of people and cultures with their customs, habits, and mutual differences"*

Study 1: Networked innovation
(Scarborough et al)

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Networked innovation in the health sector: comparative qualitative study of the role of Collaborations for Leadership in Applied Health Research and Care in translating research into practice

Harry Scarbrough, Daniela D'Andreta, Sarah Evans, Marco Marabelli, Sue Newell, John Powell and Jacky Swan

Study 1: Networked innovation
(Scarborough et al)

Case study over 3 years

- 3 CLAHRCs, 2 US networks, 1 Canadian network
- Case study, cognitive mapping, social network analysis

Considered

- History of the partnership
- Structures and processes of governance
- Coordinating and communicating mechanisms

Study 1: Networked innovation
(Scarborough et al)

Key finding: Success of these multi-stakeholder networks depended on

- **integrative capability:** the ability to move back and forth between scientific evidence and practical application

and

- **relational capability:** the ability of groups and organisations to work together

Study 2: CLAHRC X (Fitzgerald & Harvey)

Case study over 3 years in a single CLAHRC
- Archival data from formative evaluation reports

Considered
- Goals and tasks
- Structures and processes of governance
- Coordinating mechanisms

Critical social science analysis focusing on
- Antecedent conditions (history of relationships)
- Epistemic boundaries (where stakeholders are coming from)
- Professional power

Study 2: CLAHRC X (Fitzgerald & Harvey)

Individual project successes but *"we question whether [this CLAHRC] achieved more than the sum of its parts"*

- Governance structures never fully 'gelled'
- Silo behaviour, duplication of effort, withdrawal of commitment and funding over time
- Different teams for 'research' (generating new knowledge) and 'implementation' (of old knowledge)
- Emphasis had been on 'knowledge translation' to audiences *beyond* the CLAHRC rather than on sensemaking or knowledge exchange *within* it

Study 2: CLAHRC X (Fitzgerald & Harvey)

Affirmed the need for integrative capability and relational capability (Scarborough et al 2014).

On governance:
"Our data empirically support Provan and Kenis' (2008) proposition that 'shared' governance is not well suited to a large, complex network. The tensions between inclusivity of multiple stakeholders and effective decision making processes are evident"

[cf Ferlie et al 2-tier governance model]

Study 3: Realist evaluation of CLAHRCs
(Rycroft-Malone et al)

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Collective action for knowledge mobilisation: a realist evaluation of the Collaborations for Leadership in Applied Health Research and Care

Jo Rycroft-Malone, Christopher Burton, Joyce Wilkinson, Gill Harvey, Brendan McCormack, Richard Baker, Sue Dopson, Ian Graham, Sophie Staniszewska, Carl Thompson, Steven Ariss, Lucy Melville-Richards and Lynne Williams

3 UK sites

"What works for whom in what circumstances?"

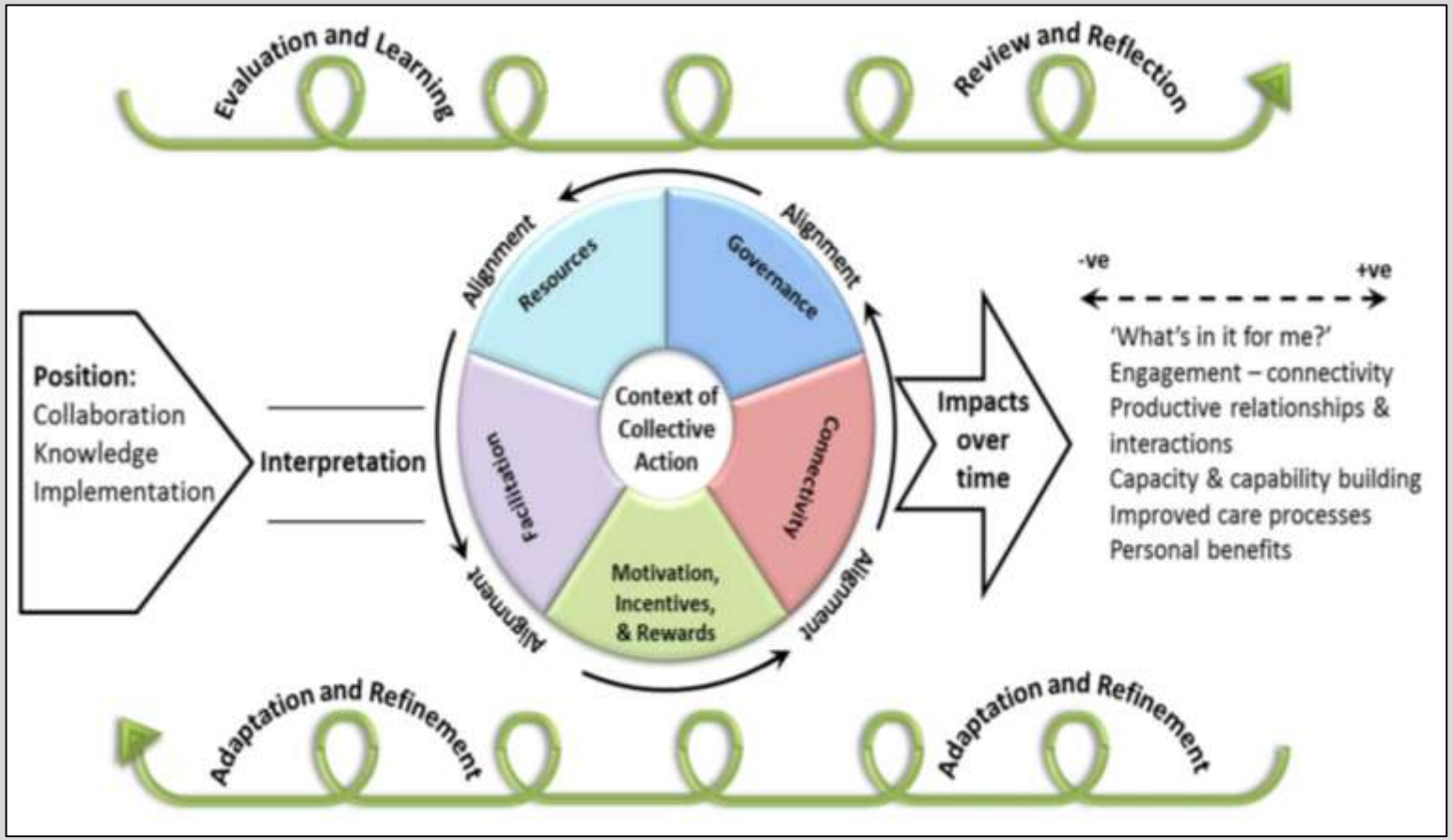
Mixed-method longitudinal study; used interviews and documents

Study 3: CLAHRCs (Rycroft-Malone et al)

"The potential of CLAHRCs to close the metaphorical 'know–do' gap was dependent on historical regional relationships, their approach to engaging different communities, their architectures, what priorities were set and how, [and] resources for implementation."

"mechanisms operated in different contexts including stakeholders' positioning, or 'where they were coming from', governance arrangements, availability of resources, competing drivers, receptiveness to learning and evaluation, and alignment of structures, positions and resources"

Study 3: CLAHRCs (Rycroft-Malone et al)



Two realities? (Hinchcliff et al)

Reality 1:
Sanitised write-ups of multi-stakeholder interactions
"…draped in the formal collaborative language and procedures prescribed by funding agency protocols"

Reality 2:
The real world, in which
"…participants … view each other pragmatically as consultants, clients or even competitors, rather than partners"

Two contrasting hypotheses

Hypothesis 1 (the rational perspective):
Multi-stakeholder health research systems will run effectively if governance structures are set up properly and the principles of good leadership are followed

Hypothesis 2 (the critical perspective):
Good structures of governance and good people in charge will not stop vested interests playing political games

These may never be formally tested against each other!

Summary: How to run multi-stakeholder health research systems

1. There is no magic formula.
2. Every network is different; the key to success depends on where the different players are coming from and their history of working together (or not).
3. The network must have integrative capability (to move between scientific evidence and practical application) and relational capability (to link stakeholders).
4. Good leadership and governance are necessary but not sufficient conditions for success.
5. Conflict should be expected and must be judiciously managed.

Bar-Yam Y: **Complexity rising: From human beings to human civilization, a complexity profile**. In: Encyclopedia of Life Support Systems. Oxford: UNESCO Publishers; 2002.

Fitzgerald L, Harvey G: **Translational networks in healthcare? Evidence on the design and initiation of organizational networks for knowledge mobilization**. Soc Sci Med 2015, 138:192-200.

Flexner A: **The usefulness of useless knowledge.** Harpers 1939, July/Nov (179):544-552.

Gibbons M, Limoges C, Nowotny H et al: **The new production of knowledge: The dynamics of science and research in contemporary societies***.* London: Sage; 1994.

Greenhalgh T, Jackson C, Shaw S, Janaiman T: **Achieving research impact through co-creation in community-based health services**. *Milbank Q* 2016, in press.

Hinchcliff R, Greenfield D, Braithwaite J: **Is it worth engaging in multi-stakeholder health services research collaborations? Reflections on key benefits, challenges and enabling mechanisms.** *Int J Qual Health Care* 2014, 26:124-128.

Kogan M, Henkel M: **Government and research: the Rothschild experiment in a government department**. London: Heinemann Educational Books; 1983.

Nowotny H, Scott P, Gibbons M: **Mode 2 revisited: The new production of knowledge**. Minerva 2003, 41(3):179-194.

Nowotny H, Scott P, Gibbons MT: **Re-thinking science: knowledge and the public in an age of uncertainty**: John Wiley & Sons; 2001.

Rycroft-Malone J, Burton C, Wilkinson J, Harvey G et al: **Collective action for knowledge mobilisation: a realist evaluation of the Collaborations for Leadership in Applied Health Research and Care**. *Health Serv Del Res* 2015; 3: 44

Scarbrough H, D'Andreta D, Evans S et al: **Networked innovation in the health sector: comparative qualitative study of the role of CLAHRCs in translating research into practice.** *Health Serv Deliv Res* 2014, 2:13.

Van de Ven AH, Johnson PE: **Knowledge for theory and practice.** *Academy of Management Review* 2006, 31:802-821.

Ziman J: **Basically, it's purely academic**. Interdisciplinary Science Reviews 1998, 23:161-168.

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Thank you for your attention

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