



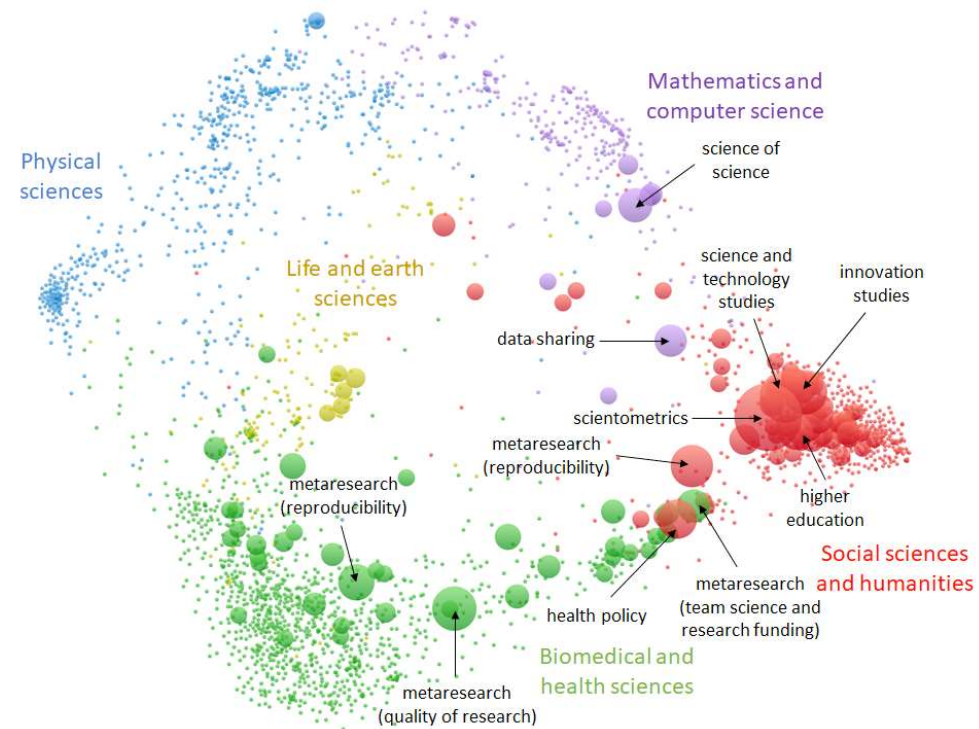
# The other side of excellence

FAILURE, RESEARCH  
CULTURE AND ACADEMIC  
GOVERNANCE

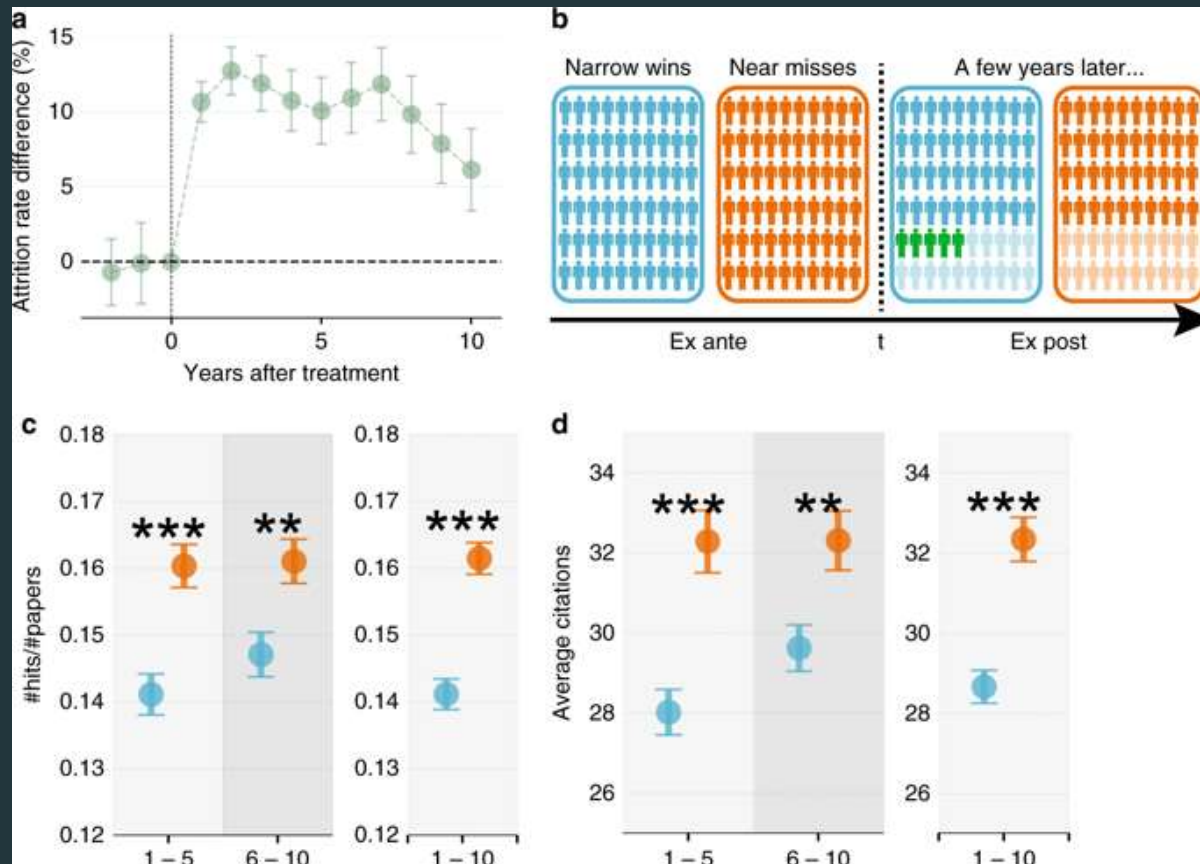
Gemma Derrick  
Educational Research, Lancaster University



# Research excellence and 'success'



Exploring the landscape of research on research. 10 July 2020:  
<https://www.cwts.nl/events?article=n-s2q274&title=exploring-the-landscape-of-research-on-research>



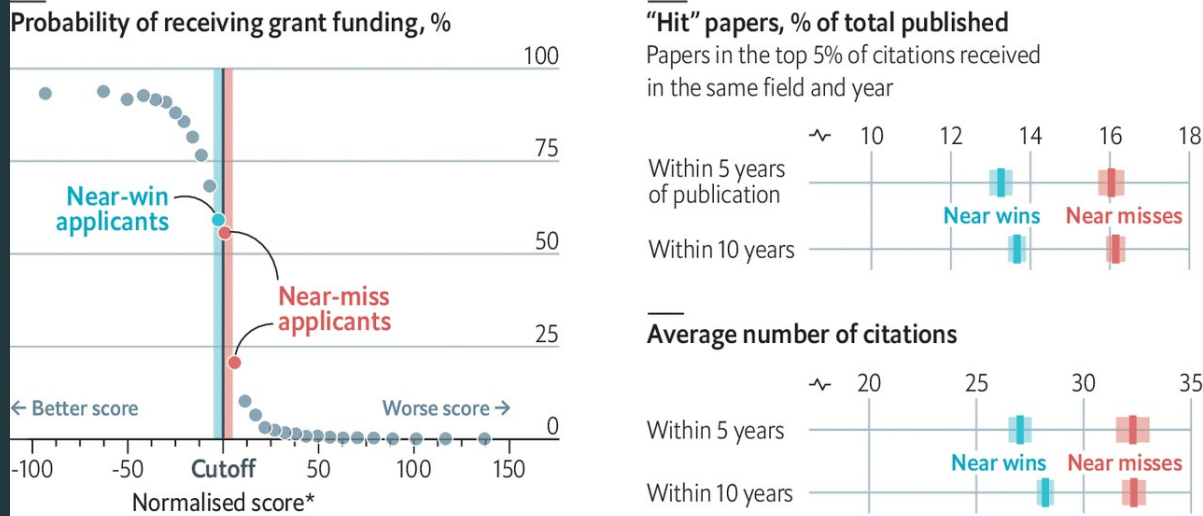
Wang et al (2019) *Early-career setback and future career impact.* Nature Communications. 10:4331



# Perseverance matters

## That which does not kill us

Grant proposals for America's National Institutes of Health



Source: "Early-career setback and future career impact", by Y. Wang, B. F. Jones and D. Wang, arXiv \*Proposal score minus funding cutoff score



We need to talk about failure.....

nature > career column > article

CAREER COLUMN · 10 JANUARY 2019

# Scientific progress is built on failure

Learning to handle failure is just part of scientific life, writes Eileen Parkes.

Eileen Parkes



RELATED ARTICLES

Faking it



Teach undergraduates that doing a PhD will require them to embrace failure



A CV of failures



# Why failure?

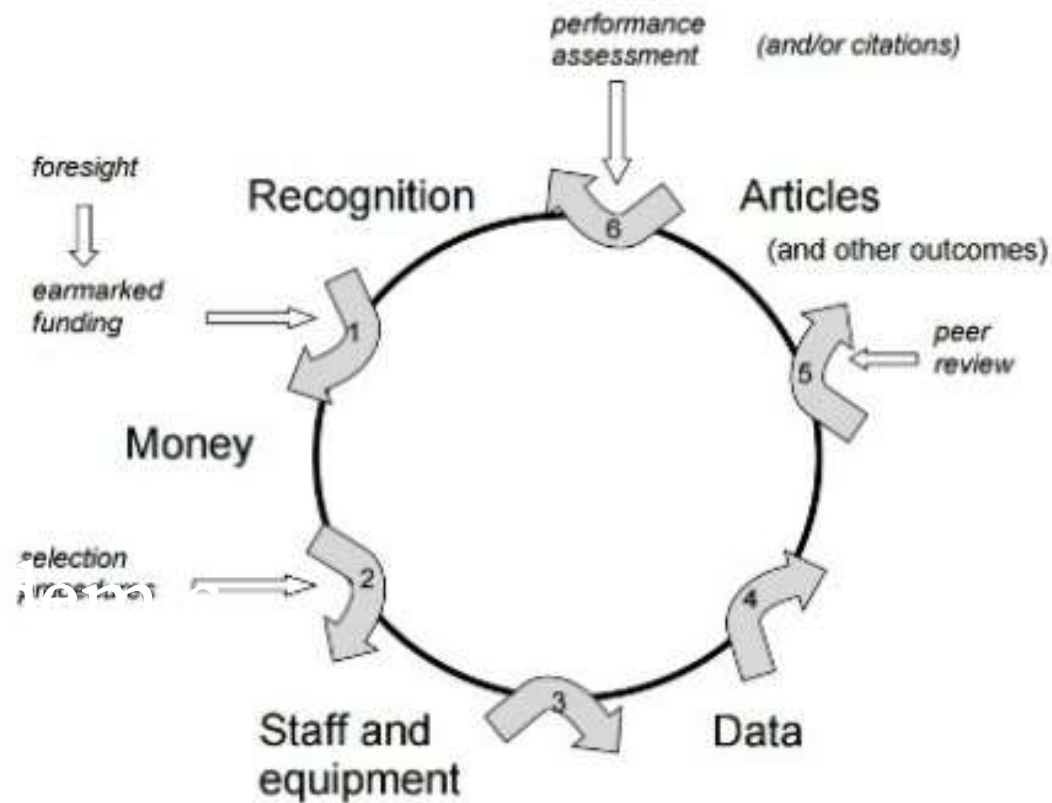


- The system is built to recognise success- not failure
- Attempts to shoe-horn individuals into models and characteristics of success
  - Gameplaying
  - Mentoring

To objective is to be ‘successful’

- How to observe those whom the system ‘fails’





Who decides  
what is successful?

Adapted from: Hessels et al (2009) In search of relevance: The changing contract between science and society. *Science and Public Policy* 36(5): 387-401



# Epistemic injustice



- Testimonial injustice
  - Dahler-Larsen (2013) – Difficult for low performers to voice critique, and high performers are silent
- Demonstration and embeddedness of power
- So who represents the failures?

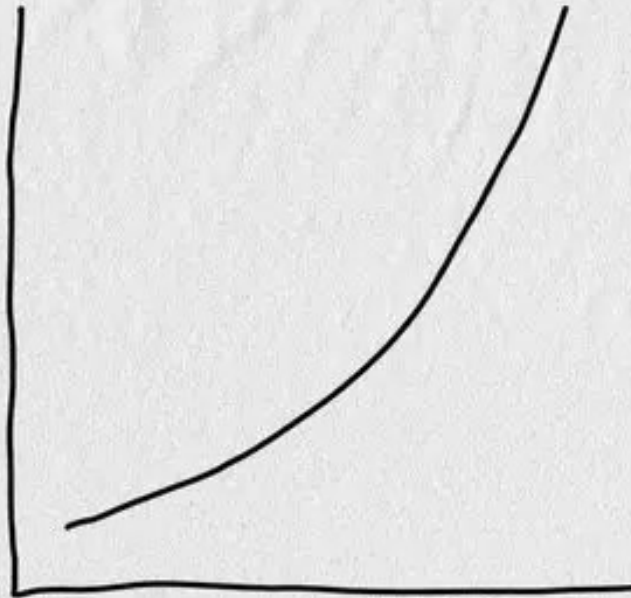
DAMNIT!  
This is so hard...  
It's the freaking wind!



WOW!  
This is super easy...  
I'm so naturally gifted!



SENSE  
OF  
HUMILITY



APPRECIATION  
OF  
LUCK

# Research kindness



*Actively changing our individual behaviours to reduce existing disparities and create a collegiate working environment globally*

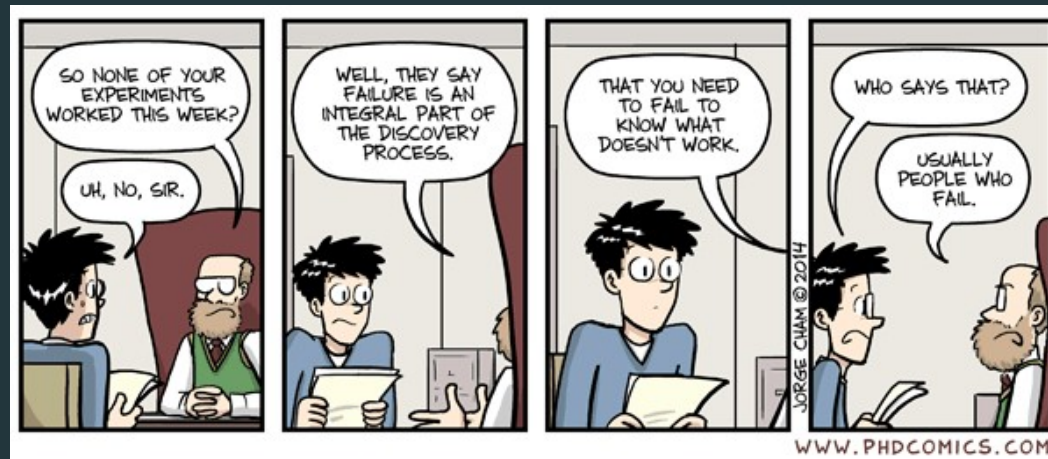
Adapted from Getty



## To whom is research culture unkind

- Research is presented as a zero-sum game, promoting exclusive choices.
- Disparities exist for:
  - ECRs
  - Women (gender pay gap)
  - BAME academics
  - Global south
  - Undervalued research fields
  - Parents/ Carers

## The Early Career Researcher (ECR)



Success is dependent on winning through peer review

Are vulnerable – job precarity and PR dictates success early on

PR feedback provision currently one-size-fits all

Hyper-competitive academic system

# Research 'kindness' & a 'kinder' research culture

---

## Research kindness

- Emphasis on individual behaviours
- Defn: *Actively changing our individual behaviours to reduce existing disparities and create a collegiate working environment globally* (Derrick 2020)



## Kinder research culture

- Systems that embed unkind behaviours
  - Peer review (scholarly and grant peer review)
  - Promotion
  - Authority
  - Excellence to the exclusion of all non-dominant forms of knowledge (e.g. REF)



# Research Phoenix project



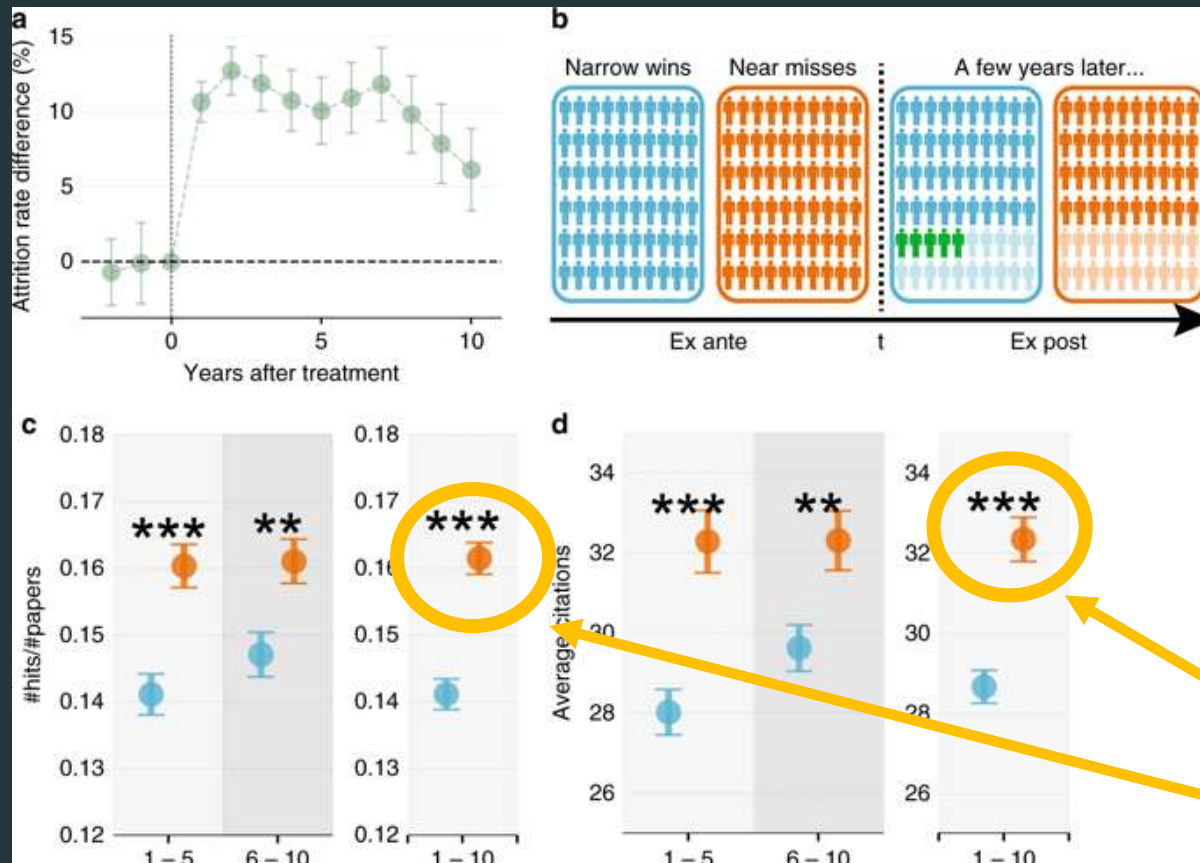
**SUCCEEDING IN RESEARCH**  
Through Failure

**ResearchPhoenix**  
@FailurePhoenix

[Edit profile](#)

Lancaster  
University





Wang et al (2019) *Early-career setback and future career impact.*  
 Nature Communications. 10:4331

**NEAR  
 MISSES**

# The Derrick hypothesis

*Near misses given a 'signal' early on that they should persist*

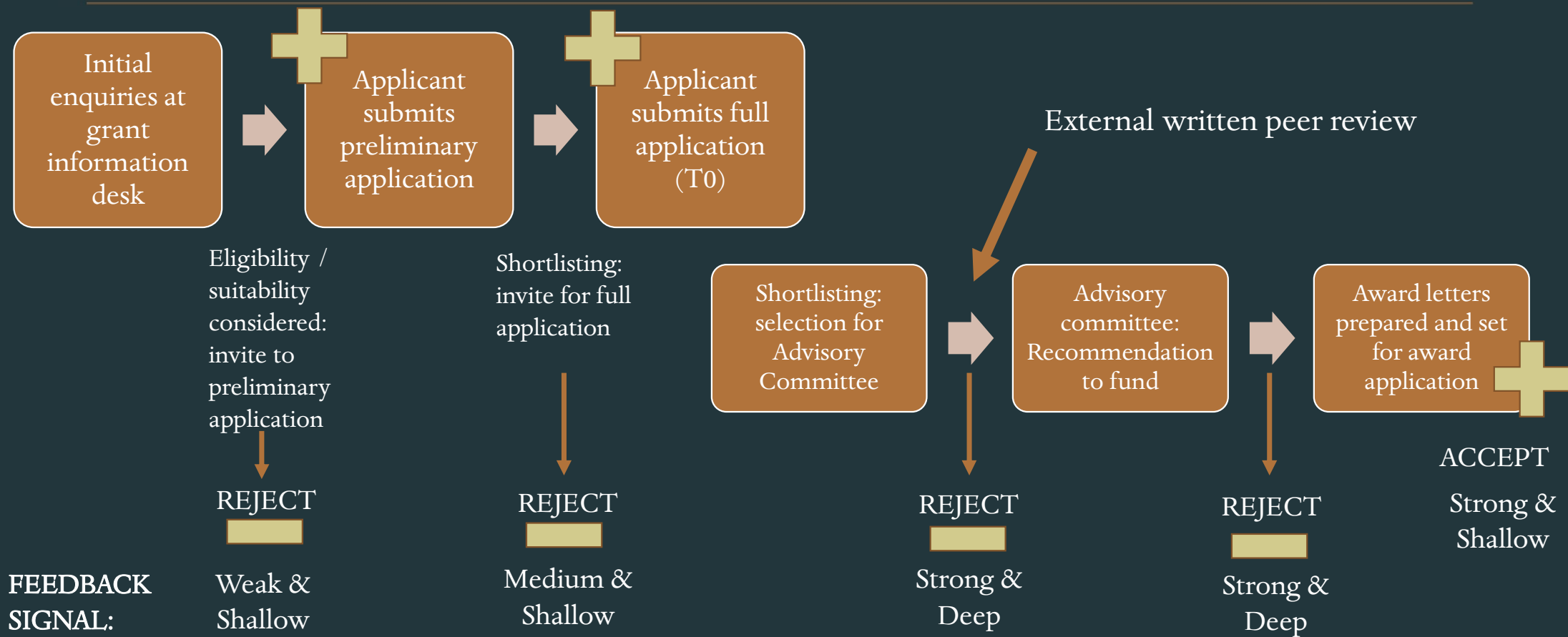


# Feedback from funding decisions

Ideally feedback should:

1. Give reasons for the decision
2. Give applicants opportunity to improve (personally or researcher)

# The peer review process at Wellcome (simplified)



# Signals in Science: Reviewer feedback

Feedback provides +ve and –ve signals but also:

## Formative / summative:

Allow room for improvement or just conveys the decision

## Weak or Strong:

Dependent on the level of investment by the candidate

## Shallow or deep:

Depending on the level of feedback received (e.g. Shallow feedback would be limited or even absent. Deep feedback would be a combination of high quality constructive and implementable feedback)

## Strong signal (Blunt) versus Weak (Diffuse):

Conveys power-relationships between reviewer and applicant and possibly

## Live or detached (Interview / paper):

The mechanism for which feedback is received can either be live (in person, dialogue based) or detached (remote and creating lag in dialogue)

Feedback crucial for kinder research culture as it can influence ECRs' choice





## Our aims



### Calculate

the productivity cost of successful versus unsuccessful ECR applicants and their teams



### Calculate

the value-added by feedback received from their unsuccessful proposal on subsequent successes and time to success



### Estimate

the extent that applicants learn (change) from previously failed proposals and the influence on time to success, or failure



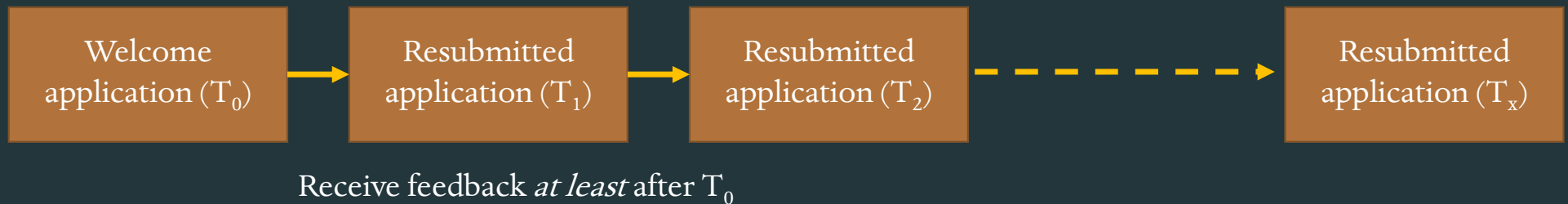
### Examine

how current peer review processes consider notions of excellence and feasibility for ECR applicants



# Survey

- Participants: all who submitted a grant to a Wellcome ECR funding round 2009-2019 (n=4109)
- N=412 responses
  - 47.7% Male / 52.3% Female
  - 54.8% in Academic-Research employment;
  - 31.7% Academic (Teaching & Research);
  - 4.6% Private sector
  - Median PhD year - 2012



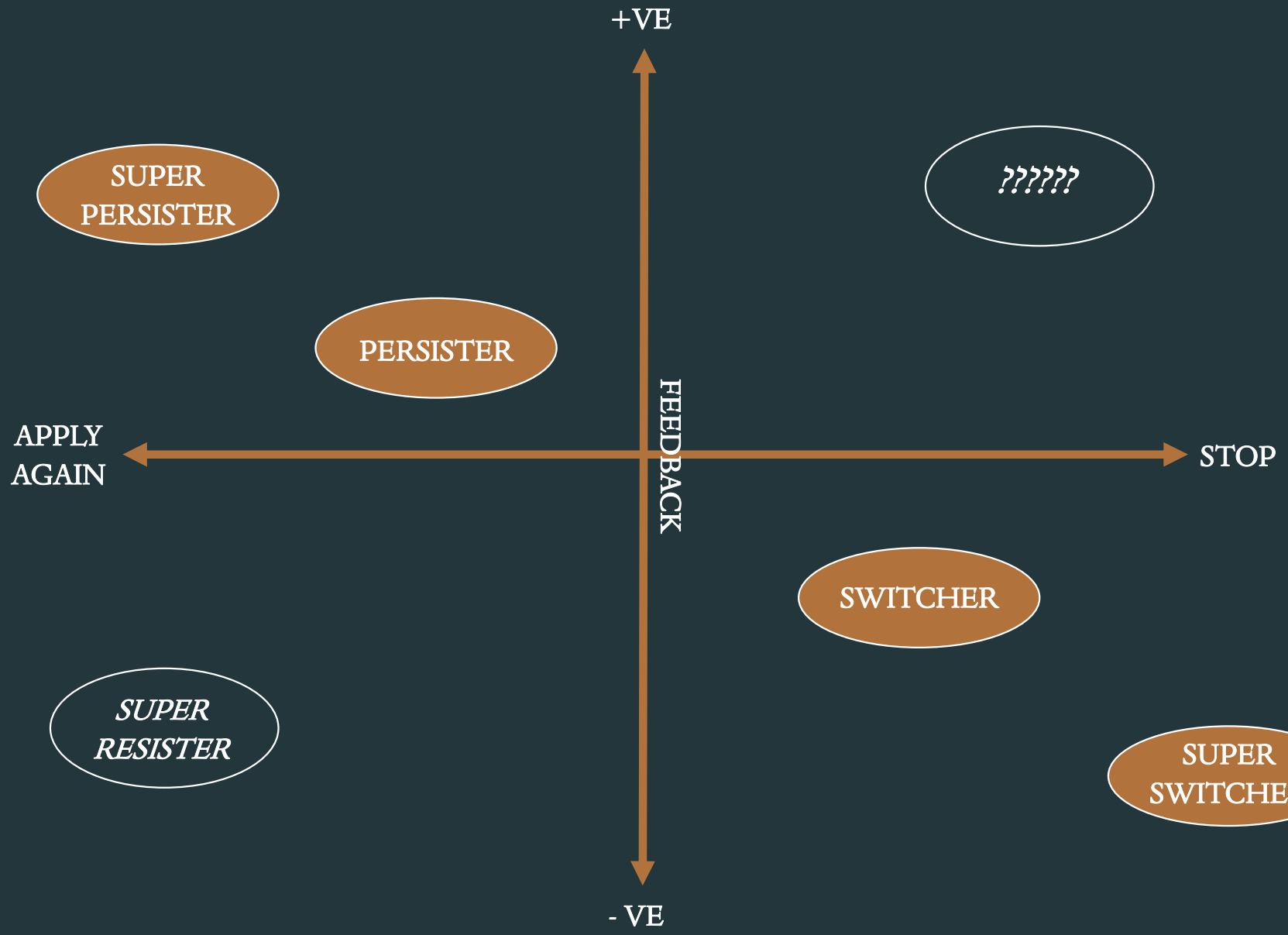


## Preliminary results

	<i>Definition</i>	<i>N= (/412)</i>
<b>Super persister</b>	Applied more than once after first failure	<b>33</b>
<b>Persister</b>	Applied once after first failure	<b>177</b>
<b>Switcher</b>	Did not apply again (still in academia)	<b>17</b>
<b>Super switcher</b>	Did not reply/bounce back. Left academia?	<b>504</b>



Do persisters and switchers respond differently to feedback?



# Next steps

1. Interviews with Persisters, Switchers and Super Persisters
2. Separation of divisive feedback
  - Components that convince applicants to switch, versus that language that convinces applicant to persist
3. Look at difference in career development and scientific performance of switchers versus persisters 2, 5 and then 10 years on.
  - Cross reference with interviews: Did they receive a signal? How can peer review be modified to ensure facilitative signals?
4. Feed into a peer review process
  - Machine learning approach to identifying problematic language in reviewers report.
  - Similar to Turnitin algorithm – gives an “Unkindness index”



A photograph showing a white ceramic mug filled with black coffee on a wooden surface. To the right of the mug is a page with a quote in large, bold, black letters. The quote reads: "FAILURE IS NOT THE OPPOSITE OF SUCCESS. IT IS PART OF SUCCESS." The text is arranged in several lines, with "FAILURE" and "IS NOT" on the first line, "THE OPPOSITE OF" on the second, "SUCCESS. IT IS" on the third, "PART" on the fourth, and "OF SUCCESS." on the fifth.

**FAILURE  
IS NOT  
THE OPPOSITE OF  
SUCCESS. IT IS  
PART  
OF SUCCESS.**