Enough complaining, it’s time for change!

Academic culture from a graduate student’s perspective

Noémie Aubert Bonn, PhD student in Hasselt University (Belgium)
1. A bit about me
2. What I learnt from my research
3. Time for change!
1. A bit about me
Psychiatry / cognitive neuroscience
Tenure application
( day and night volunteering)
Conflicts of interest
Publication bias
Selective reporting
Pharma Clinical trials
Tenure application

Psychiatry / Cognitive neuroscience

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(day and night volunteering)
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Tenure application

= Strategy!

1. Contacting editors
2. Split publications
3. Rush unfinished publications
4. …

8 papers 5 months

Conflicts of interest
Publication bias
Selective reporting
Pharma Clinical Trials
Wait... is this really how research should work?

Tenure application

Psychiatry / Cognitive neuroscience
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Wait… is this really how research should work?

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Publication Ethics

Psychiatry / neurosciences

Psychiatry / cognitive neuroscience
Wait... is this really how research should work?
re-thinking success, integrity, and culture in research
Project in Flemish Biomedical Sciences funded by BOF
First step: Broad literature review of Research on Research Integrity
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Second step: Interviews and focus groups about Success, Problems, Responsibilities
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Second step: Interviews and focus groups about success, problems, and responsibilities of researchers, post-docs, and PhD students.
First step:
Broad literature review of Research on Research Integrity

Second step:
Interviews and focus groups about
- PhD Students
- Post Doc
- Research Students
- Ex-Researchers

Success
Problems
Responsibilities
First step:
Broad literature review of research on research integrity

Second step:
Interviews and focus groups about
- Lab Technicians
- Res. Int. Offices
- Editors/Publishers
- Researchers
- Post Doc
- Ex-Researchers
- Lab Technicians
- Research Funders
- Policy Makers
- Institution Leaders

Responsibilities
Problems
Success

Interviews and focus groups about research integrity

First step: Broad literature review of research on research integrity
2. What I learnt from my research
Key findings
Key Findings

a. There is a clear issue in the way we assess scientists.

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There is a clear issue in the way we assess scientists. Ideal Researcher

- Fits in with Merton's norms
- Devoted, selfless
- Part of the research community
- Disinterested
- Passionate
- Skeptical and realistic
- Rigorous

Successful Researcher

- Devoted, selfless
- Part of the research community
- Disinterested
- Passionate
- Skeptical and realistic
- Rigorous
There is a clear issue in the way we assess scientists. Ideal Researcher: devoted, selfless, part of the research community. Successful Researcher: strategic, rigorous, skeptical and realistic. Extraordinary claims (small N, p hacking), competitive, ambitious, extra-moral. Ambitions (sell, convince, lobby), sacrifice well-being/family life, quantity > quality.
There is a clear issue in the way we assess scientists. The Ideal Researcher and the Successful Researcher have different qualities:

**Ideal Researcher**
- Devoted, selfless
- Part of the research community
- Disinterested
- Passionate
- Skeptical and realistic
- Rigorous

**Successful Researcher**
- Sacrifice well-being / family life
- Competitive
- Ambitious (sell, convince, lobby)
- Strategic
- Extraordinary claims (small N, p hacking)
- Quantity > Quality

The diagram illustrates the conflict between these two research styles. The text mentions that scientists fit in with Merton's norms, which include devoting themselves to research and being part of the research community. However, there is a tension between sacrificing personal life for research and the competitive, ambitious nature of research. The text highlights the importance of being aware of these conflicts in the assessment of scientists.
Key findings

a. There is a clear issue in the way we assess scientists

b. New problems become part of the research culture
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Stressed
Exhausted
Insecure
Frustrated

Many leave academia

Fierce competition
b. New problems become part of the research culture

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Frustrated Insecure Exhausted Stressed

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New problems become part of the research culture

Fierce competition

Excellent at:

- Beating competition
- Producing outputs the system wants
- Impressive metrics

Many leave academia

Will teach and expect what they are good at!
b. New problems become part of the research culture

- Pressure
- Competition
- Unrealistic expectations
- Stressed
- Exhausted
- Insecure
- Frustrated

Will teach and expect what they are good at!

Excellent at:
- Beating competition
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Many leave academia

Fierce competition

My promotor is always so reluctant to let me go and show the data to other people. [...] he is always so scared that other people are going to steal his ideas...
New problems become part of the research culture.

Pressure, Competition, Unrealistic expectations, Stressed, Exhausted, Insecure, Frustrated.

Will teach and expect what they are good at!

Excellent at:
- Beating competition
- Producing outputs the system wants
- Impressive metrics

Many leave academia.

Cycle continues.

Fierce competition.

Are good at, expect what they teach and will.
b. New problems become part of the research culture

Pressure
Competition
Unrealistic expectations
Stressed
Exhausted
Insecure
Frustrated

Many leave academia

Fierce competition
- Impressions metrics
- The system wants
- Producing outputs
- Beating competition
- Excellent at:
  - Beating competition
  - Producing outputs the system wants
  - Impressive metrics

Will teach and expect what they are good at!

Excellent at:

The Cycle Continues
Key findings

a. There is a clear issue in the way we assess scientists.

b. New problems become part of the research culture.

c. Nobody feels responsible for solving the problems.
Who is responsible for the changes that can promote better science?

- Research Offices
- Editors/Publishers
- Research Funders
- Policy Makers
- Institution Leaders

Ex-Researchers
Lab Technicians
Researchers
Post Doc
PhD Students
Nobody feels responsible for solving the problem.
Ex-Researchers
Research Integrity Offices

Editors/Publishers

Research Funders

Policy Makers

Institution Leaders

Researchers

Lab Technicians

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PhD Students

C. Nobody feels responsible for solving the problems
Ex-Researchers

Research Integrity Offices

Editors/Publishers

Research Funders

Policy Makers

Institution Leaders

Nobody feels responsible for solving the problems

Lab Technicians

Researchers

Post Doc

PhD Students
nobody feels responsible for solving the problems
nobody feels capable to change.

High impact factors are the goal of everyone. Authors of every researcher, so there isn’t anything that we can do. "Because the system is like it is. Everyone is sticking to the system."

Stakeholders:
- PhD Students
- Institution Leaders
- Researchers
- Editors/Publishers
- Nobody
Key findings

b. New problems become part of the research culture

c. Nobody feels responsible for solving the problem

d. Existing approaches rarely target the source of the problem

a. There is a clear issue in the way we assess scientists

Causes for bad science

Problem (Which behaviours? How prevalent?)

Approaches (What can we do?)

Consequences

How many empirical papers focus on…

Existing approaches rarely target the source of the problem
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Causes for bad science

Problem (Which behaviors? How prevalent?)

Approaches (What can we do?)

Consequences

How many empirical papers focus on...
Existing approaches rarely target the source of the problem. We keep describing the problem...

...How many empirical papers focus on...

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Approaches (What can we do?)
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We keep describing the problem...

Most papers on causes blame the system...

How many empirical papers focus on...

Causes for bad science

Problem (Which behaviours? How prevalent?)

Approaches (What can we do?)

Consequences

Many...
d. Existing approaches rarely target the source of the problem.

We keep describing the problem. Most papers on causes blame the system…

Problems (Which behaviours? How prevalent?)

Approaches (What can we do?)

Consequences

How many empirical papers focus on…

Most papers on causes blame the system…

But most approaches target researchers.
Key findings: Summary

What researchers have to do to be successful disrupts good science.

Researchers who prioritize good science over success do not survive the system, so the problems and disruptive practices become part of the research culture. Since everyone feels unable to address the problem, current approaches simply target the young researchers (again!) and increase the pressure.

Most players are aware of the problem, but nobody feels able to change anything, so there is growing distrust, frustration, and loss of hope.

Since everyone feels unable to address the problem, current approaches simply target the young researchers (again!) and increase the pressure.
4. Time for change...

So... after 12 minutes of complaining...
Those who disagree with current definitions of success will simply be ‘have to leave’ from academia. Not everyone agrees on the approaches we have to take.

4. Time for change... What can we do?
Those who disagree with current definitions of success will simply be ‘have to leave’ from academia.

Not everyone agrees on the approaches we have to take:

1. We need more discussion between actors.
2. We need to understand the position, pressure, and blockage that other actors face, and to join forces.
3. Reduce distrust, blame, hopelessness, and false beliefs.

What can we do?

4. Time for change.
Those who disagree with current definitions of success will simply be 'have to leave' from academia.

Not everyone agrees on the approaches we have to take:

1. We need more discussion between actors.
2. We must dare to change assessments.
3. Reduce distrust, blame, hopelessness, and false beliefs.
4. Time for change... What can we do?
Those who disagree with current definitions of success will simply have to leave academia. Not everyone agrees on the approaches we have to take. We need more discussion between actors. We must dare to change assessments. We need the courage to test, disrupt, and learn from our mistakes. But these actions will take time.

1. We need more discussion between actors. What can we do?

2. We must dare to change assessments.

   = Reduce distrust, blame, hopelessness, and false beliefs.

   Face, and to join forces, we need to understand the position, pressure, and blockage that other actors face, and to join forces.

   HK Principles, Plan S, Ghent University, movements like DORa, Leiden Manifesto, bringing to action!
4. Time for change... What can we do...

... so in the meantime...
3. Rethink the way we teach good science

... so in the meantime...

4. Time for change... What can we do?
3. Rethink the way we teach good science

Knew bad practices
Know personal consequences

COMPLIANCE (obey)

"How can we discourage bad science?"

…so in the meantime…

4. Time for change… What can we do?
3. Rethink the way we 'teach' good science

EMPOWERMENT (activism)

Know bad practices

Tools and understanding of good practices

Feel (and genuinely be) supported

Feel of belonging (and respect)

Resilience

Responsibility

Empowerment (activism)

Compliance (obey)

Conflict success—good science

Guilt / indifference

Guilt / indifference

Know personal consequences

How can we encourage good science?

Hope ↓ =

How can we discourage bad science?

Responsibility ↓ =

FEELING of belonging (and respect)

Resilience ↓ =

Responsibility

Know personal consequences

 svens

So in the meantime...

4. Time for change...

What can we do?
3. Rethink the way we teach good science

- Empowerment (activism)
  - "How can we encourage good science?"

- Compliance (obey)
  - "How can we discourage bad science?"

4. Time for change

...so in the meantime...

3. Rethink the way we teach good science

- Tools and understanding of good practices
- Feel (and genuinely be) supported
- Feel of belonging (and respect)
- Responsibility
- Guilt / indifference
- Feel of success

How can we encourage good science?
Yes, we do. We do need hope, of course. But the one thing we can do, once we start to act, is... Don't stop with hope...

We need more than hope is everywhere. So instead of looking for hope, look for action. Then, and only then, hope will come.
“Yes, we do need hope, of course. But the one thing we need more than hope is action. Once we start to act, action, then, and only then, hope will come.”

Don’t stop with hope…

It’s time for change!
Huge thanks to OASPA for inviting me and for supporting my trip to come here!

Thank you!
Thank you!

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Come here!

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