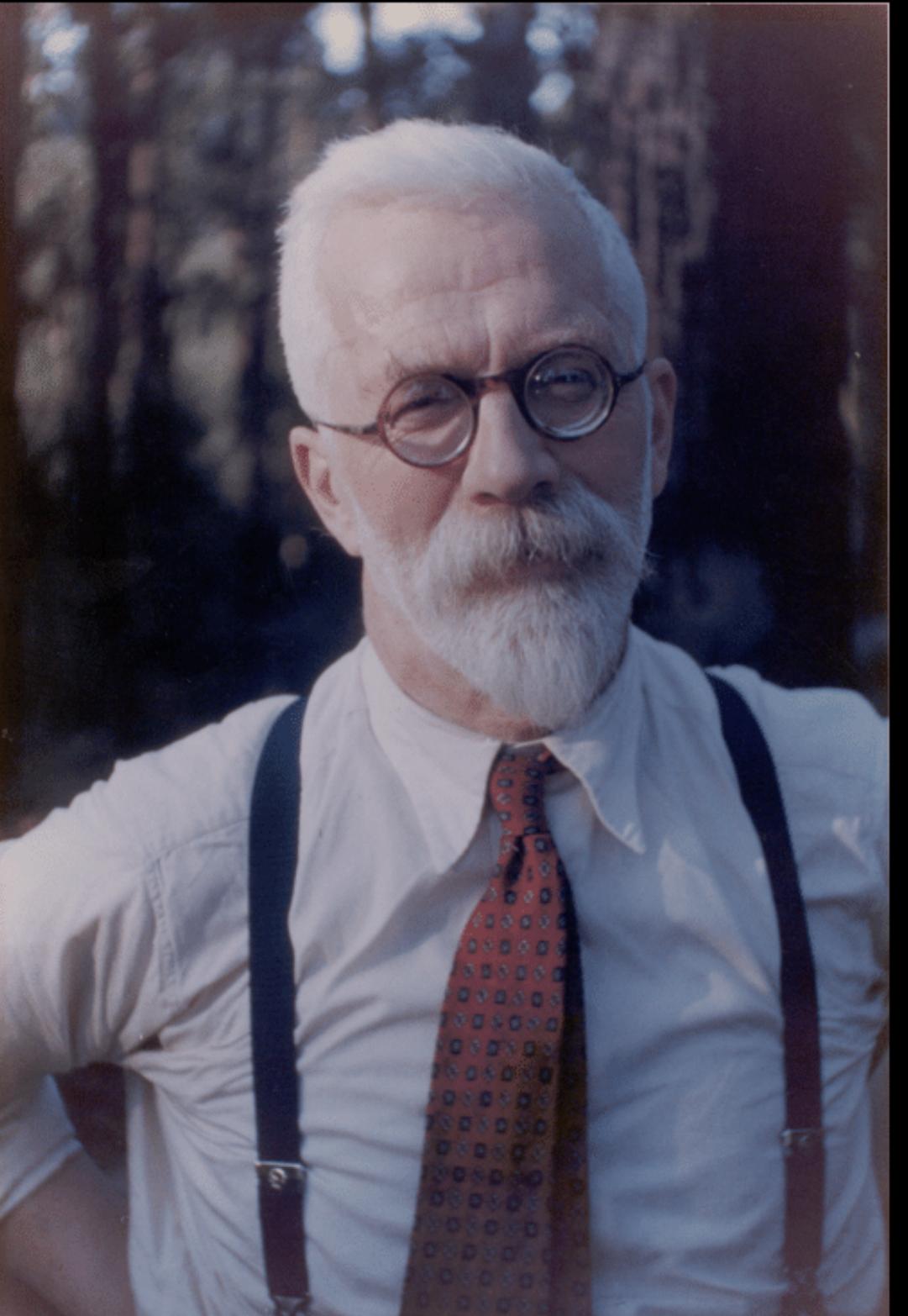


How to increase the visibility of a statistician in the modern world of collaborative research?

18.10.2021

Nuno Sepúlveda, N.Sepulveda@mini.pw.edu.pl



To consult the statistician after an experiment finished is often merely ask him to conduct a postmortem examination. He can perhaps say what the experiment died of.

Ronald Fisher, 1938

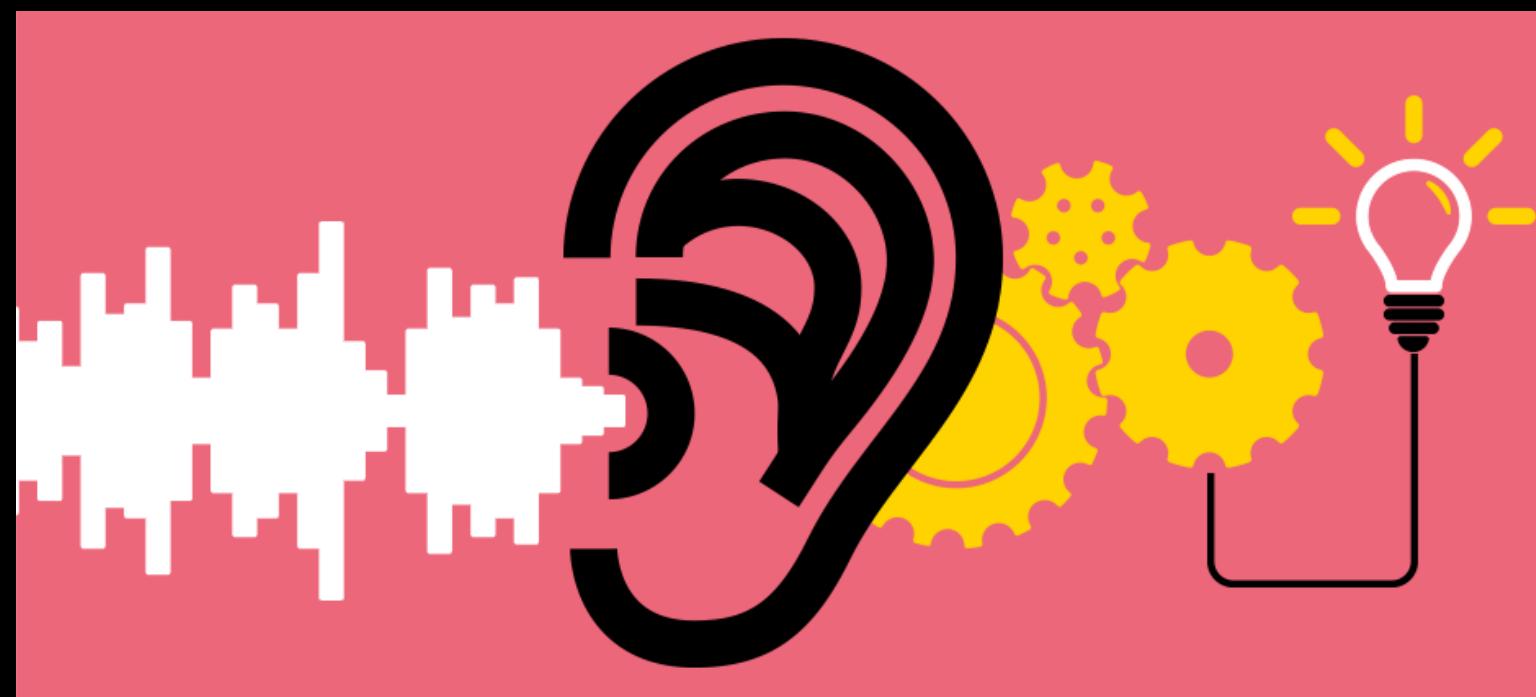
Leadership is not authority or a rank, it is a practice
and a choice.

Simon Sinek

*Statistical leadership in a collaborative environment is the use of **influence without authority** to guide the design, strategy and decisions of a multidisciplinary team*

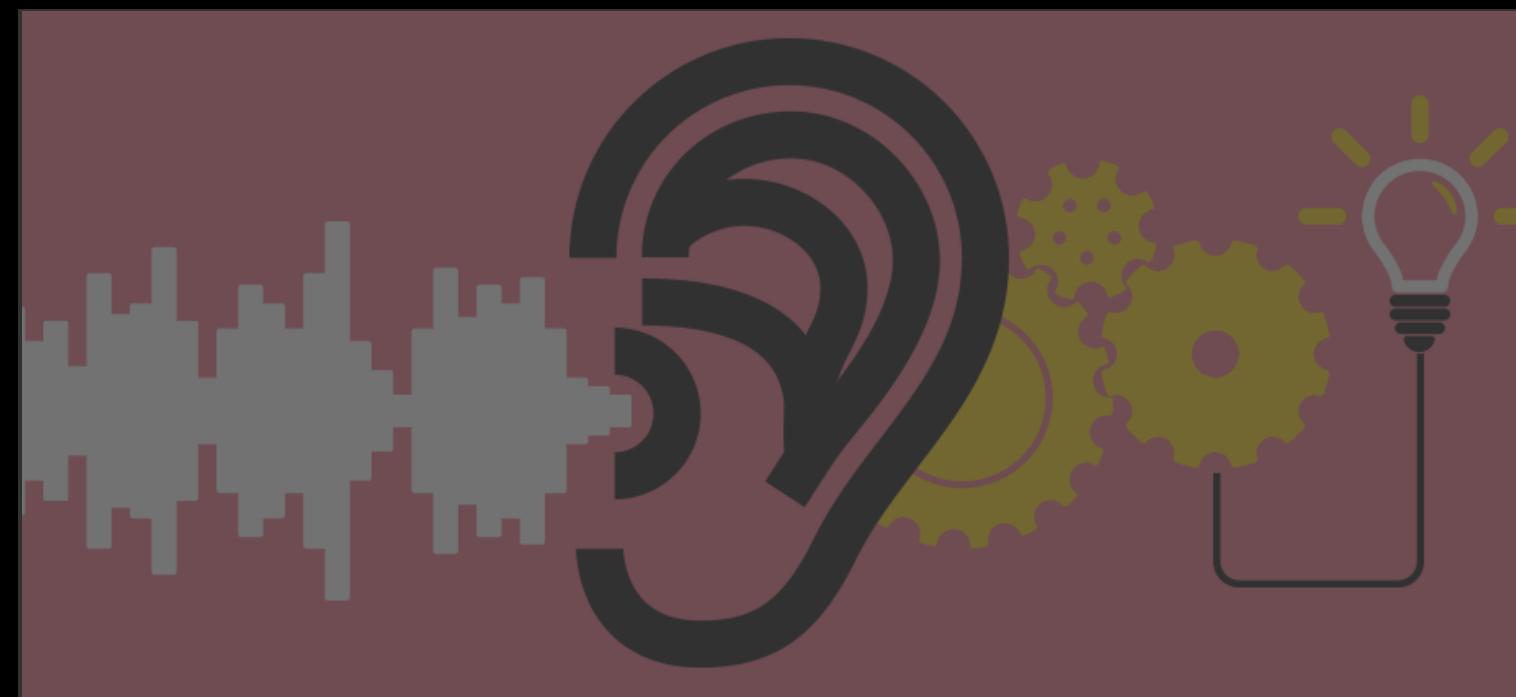
Key competences for statistical leadership

Conscious listening



Key competences for statistical leadership

Conscious listening

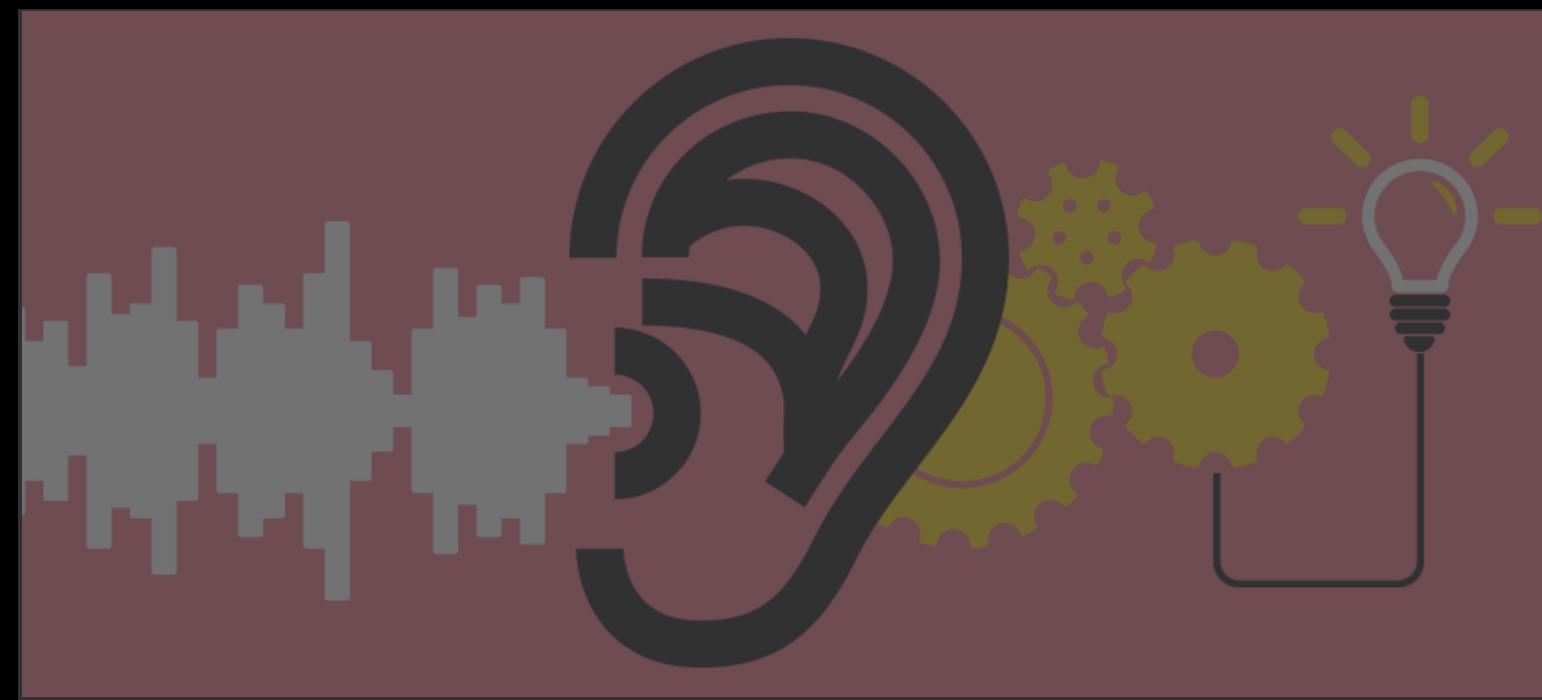


Networking



Key competences for statistical leadership

Conscious listening



Networking



Effective communication



JORDAN B.
PETERSON

12 RULES
FOR LIFE

AN ANTIDOTE TO CHAOS

allen lane



1. Stand up straight with your shoulders back
2. Treat yourself like someone you are responsible for helping
- 3. Make friends with people who want the best for you**
4. Compare yourself to who were yesterday, not to who someone else today
5. Do not let your children do anything that makes you dislike them
6. Set your house in perfect order before you criticise the world
7. Pursue what is meaningful (not what is expedient)
8. Tell the true - or at least, don't lie
9. Assume that the person you are listening to might know something you don't
10. Be precise in your speech
11. Do not bother children when there are skateboarding
12. Pet a cat when you encounter one on the street

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Conscious listening

Were you able to listen to a talk like this one without slides?

Blocks to conscious listening

Cultural
Language
Values
Beliefs
Attitudes
Expectations
Intentions

Train your conscious listening



5 ways to listen better | Julian Treasure

3.5M views • 10 years ago

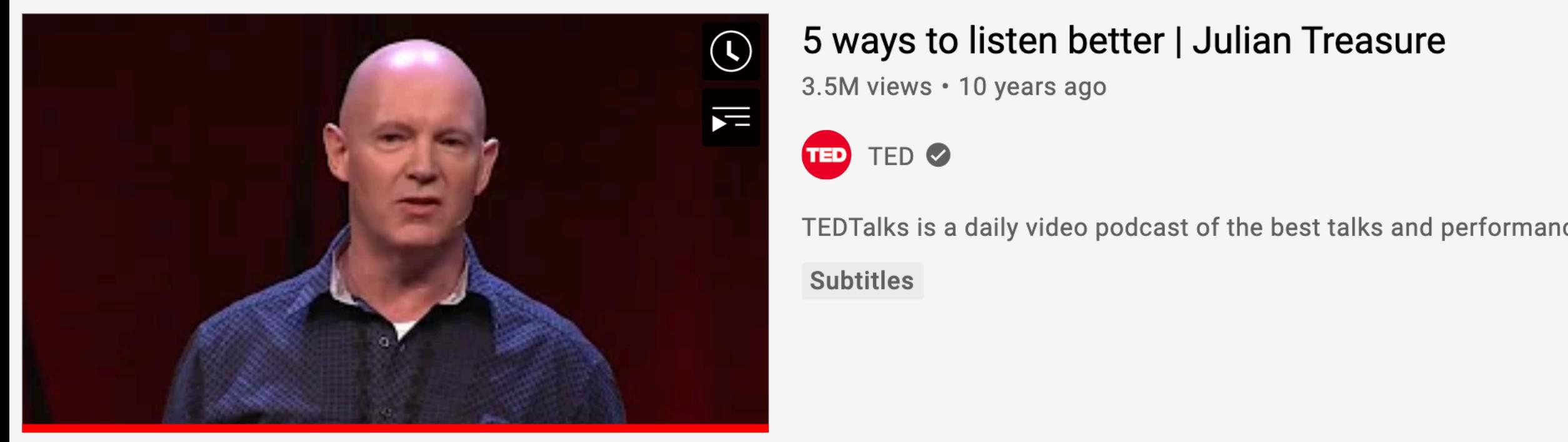
TED TED ✓

TEDTalks is a daily video podcast of the best talks and performances from TED Conferences.

[Subtitles](#)

A thumbnail image of a video player showing a man with a shaved head, Julian Treasure, speaking. He is wearing a dark blue patterned sweater over a light-colored collared shirt. The video title is "5 ways to listen better | Julian Treasure". Below the title, it says "3.5M views • 10 years ago". The TED logo is present with a checkmark. A subtitle at the bottom reads "TEDTalks is a daily video podcast of the best talks and performances from TED Conferences." There is also a link to "Subtitles".

Train your conscious listening



Enjoy silence

The importance of silence - Sadhguru

“See if you can articulate the same things that you’re saying with half the number of words. Suddenly you will become extremely conscious of everything.”

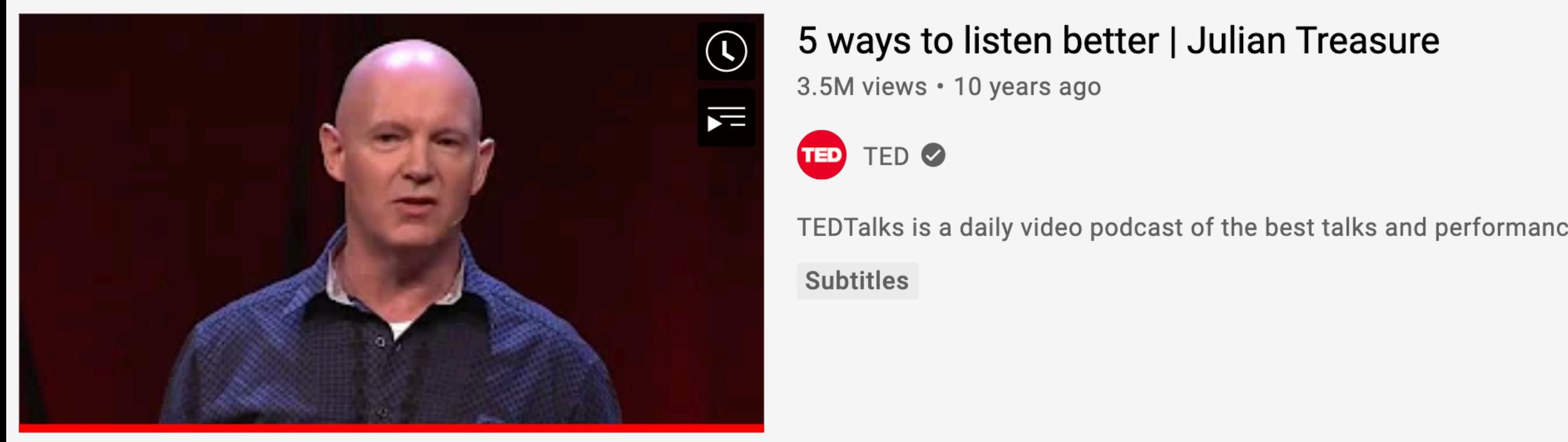
Train your conscious listening



Mixer

How many sounds can I listen even in the noisy environment?

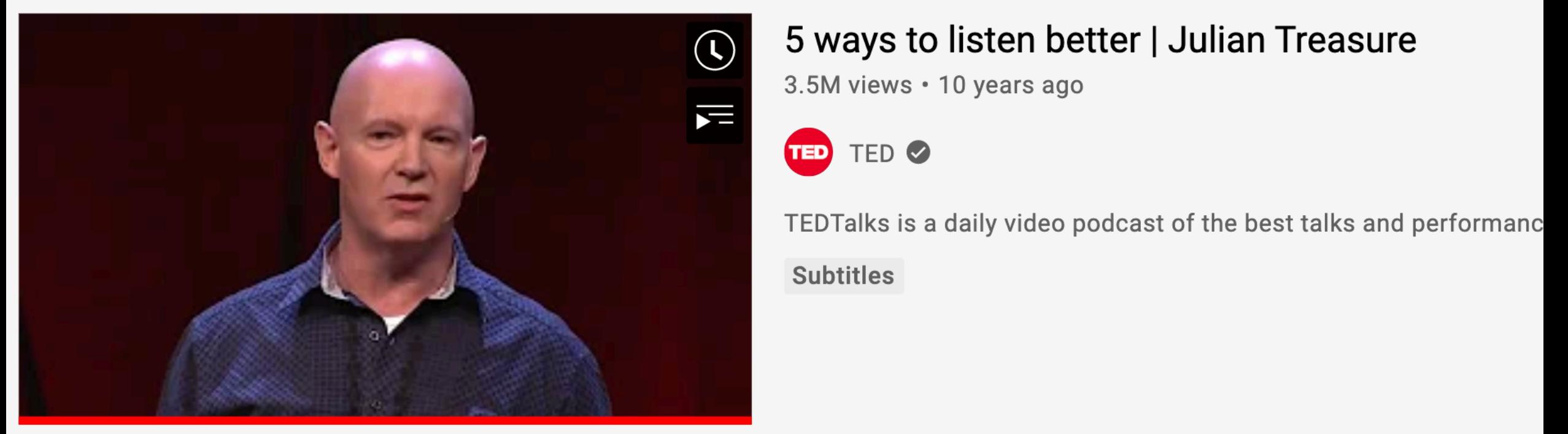
Train your conscious listening



Savouring

Listen to mundane sounds

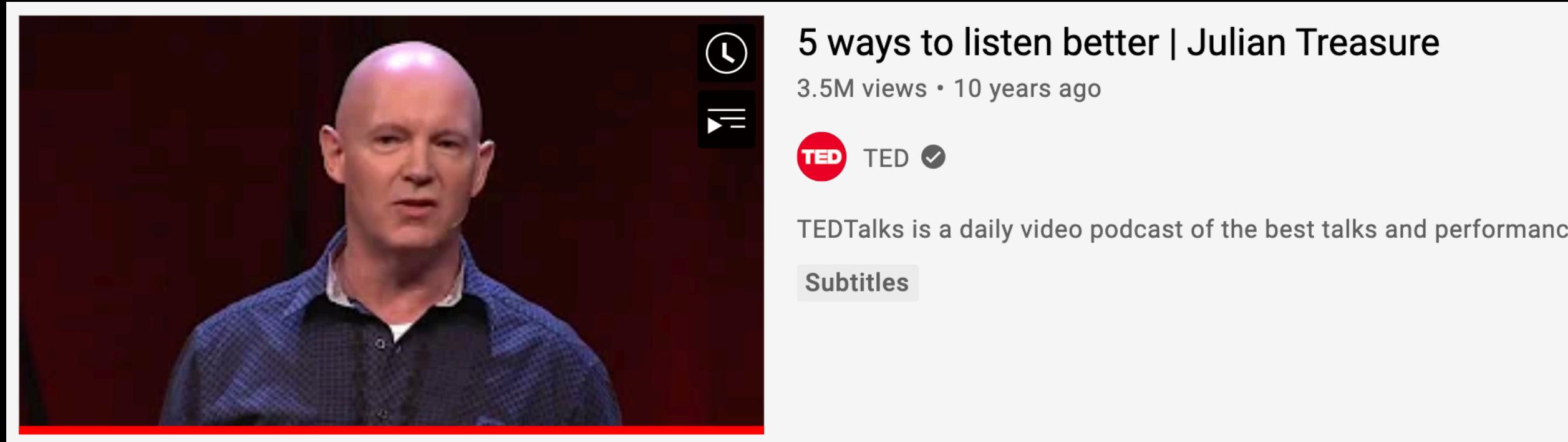
Train your conscious listening



Listening positions

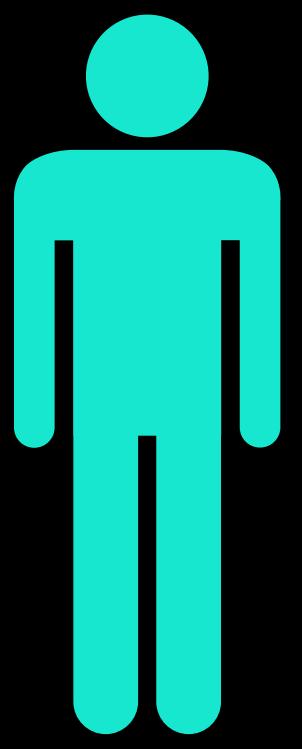
passive / active
reductive / expansive
critical / empathetic

Train your conscious listening



R receive
A appreciate
S summarise
A ask

RASA

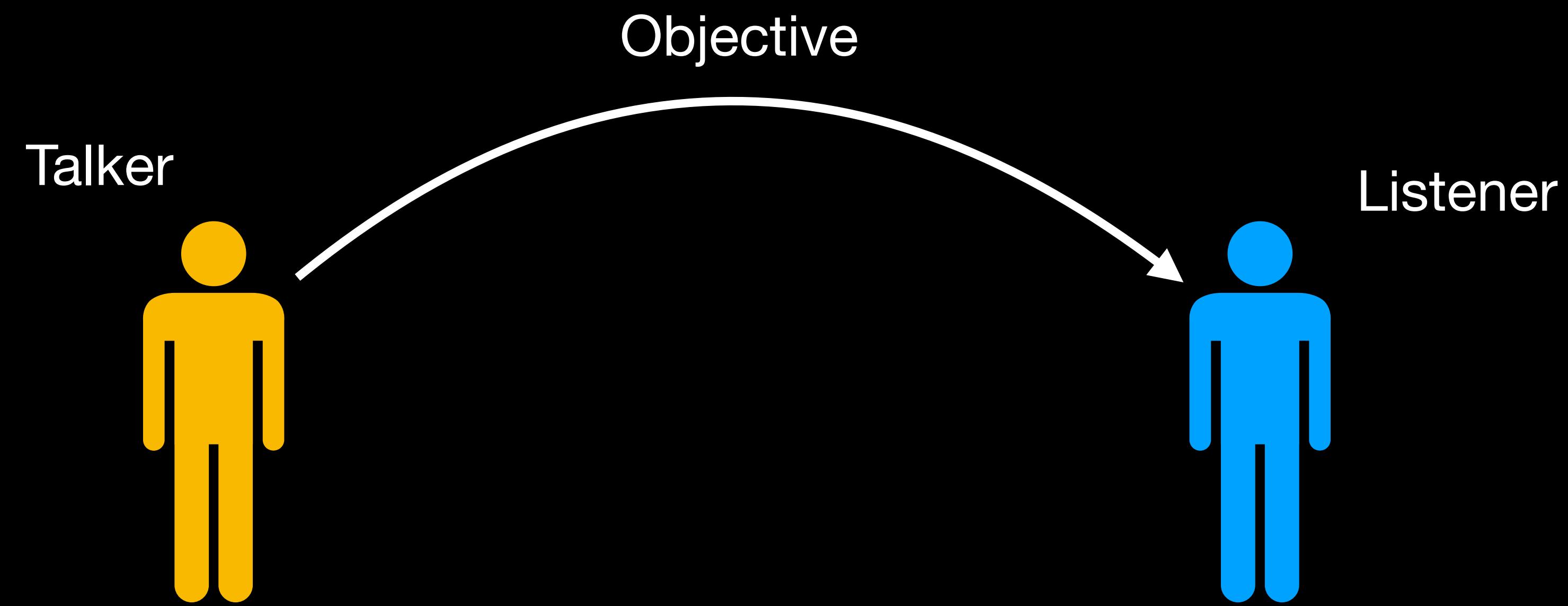


Non-statistician

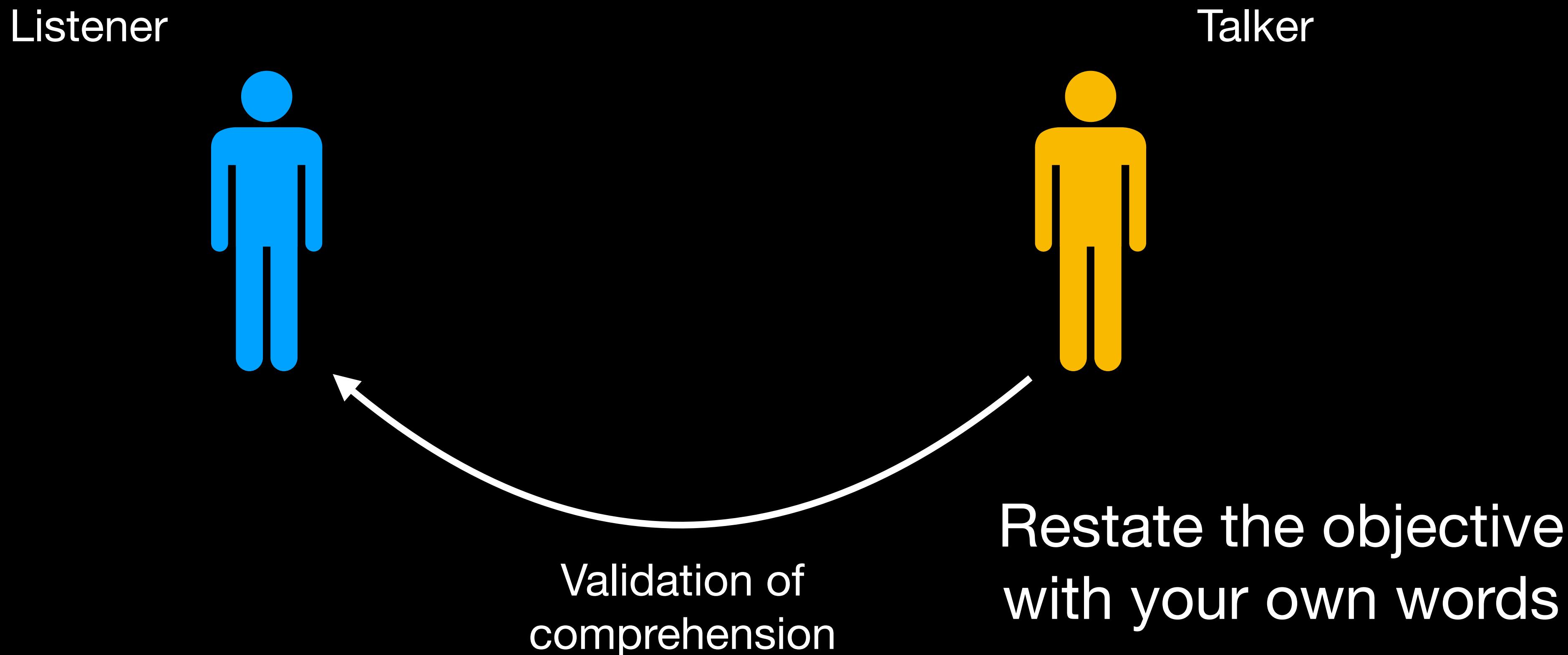


Statistician

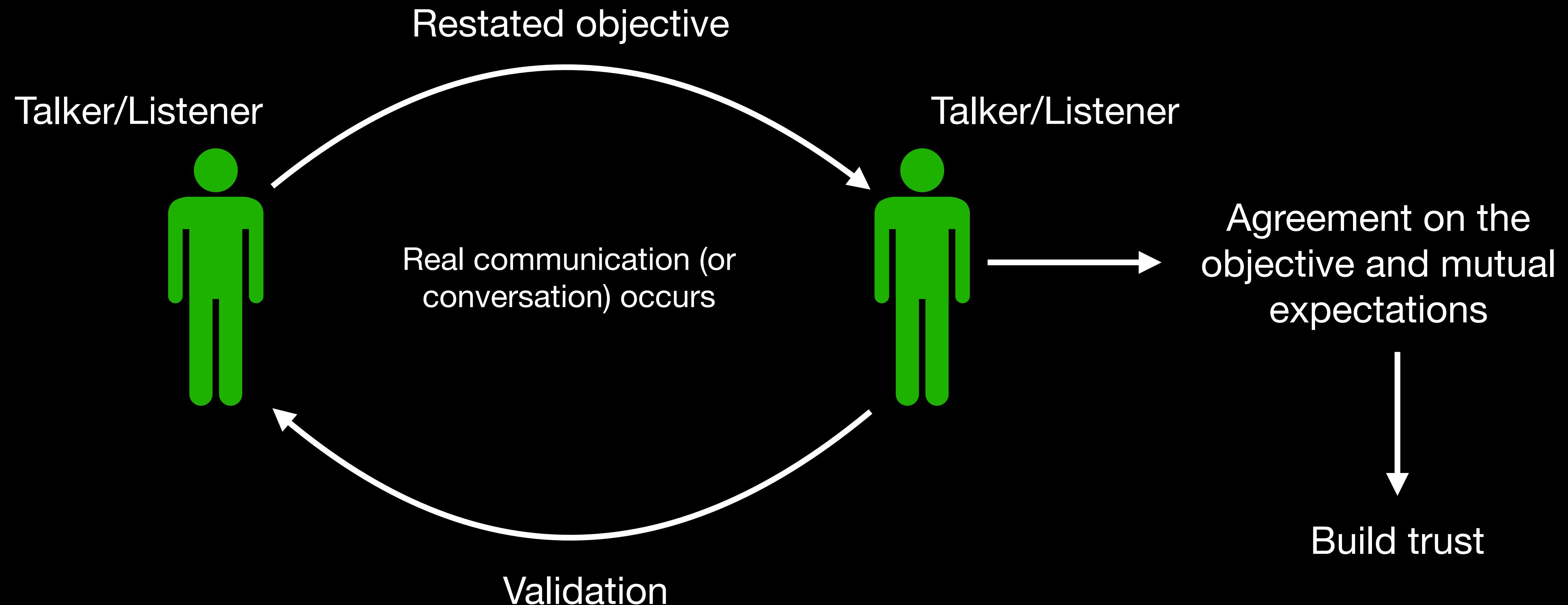
Receive and appreciate



Summarize and ask



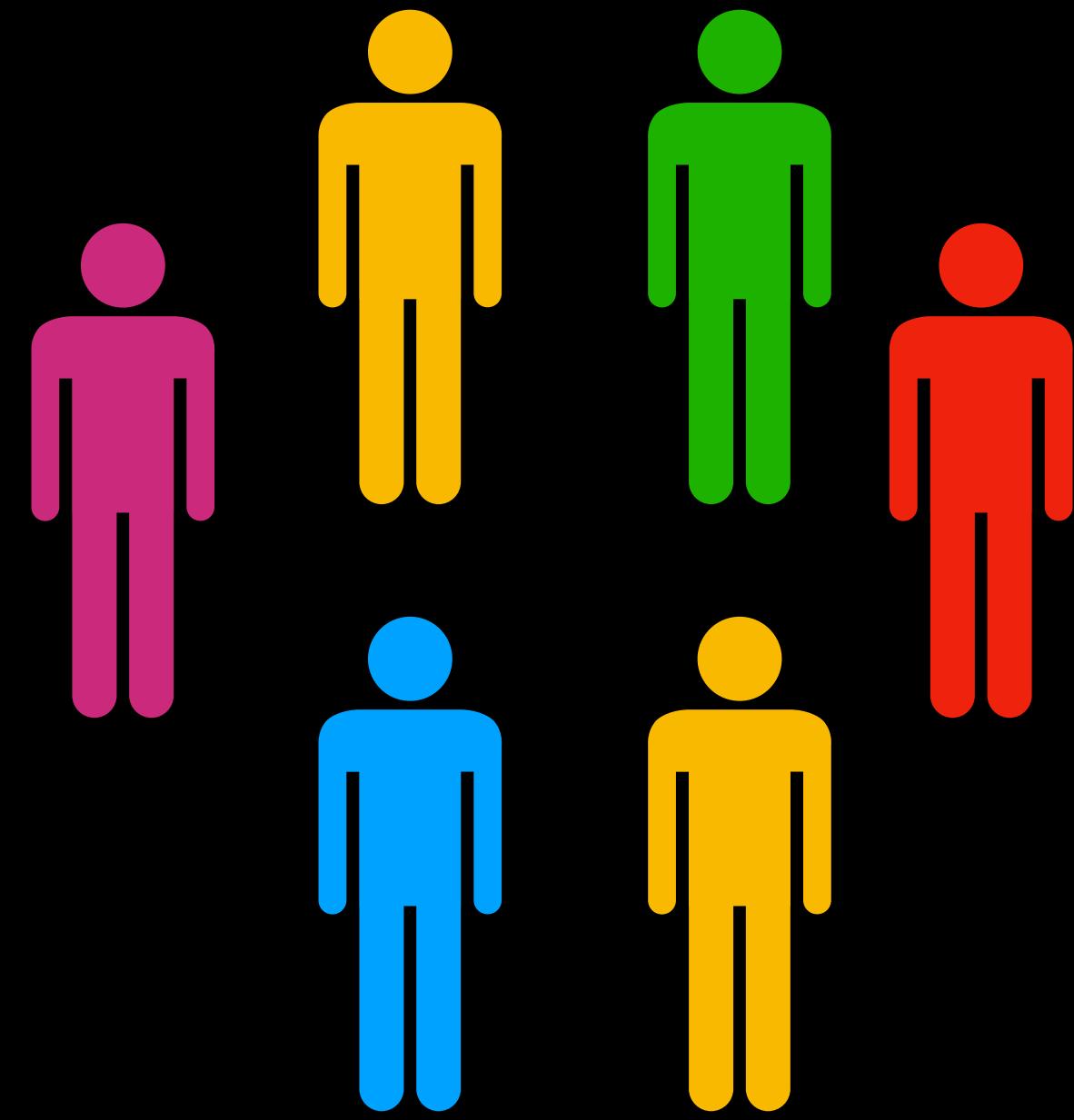
RASA



Networking

How the team members fit together?

Manage
expectations



Increase respect and
authority

Build Trust

Networking

How the team members fit together?

Manage
expectations



Build Trust

Increase respect and
authority

Try to find the
collaborators who
share the same
values and principles
with you

Two longstanding collaborators



Carlos Daniel Paulino



Solange Gil

Communication



How to speak so that people want to listen | Julian Treasure

31M views • 7 years ago

TED TED ✓

Have you ever felt like you're talking, but nobody is listening? Here's Julian Treasure to help you change that.

Subtitles

9:59

A thumbnail for a TED talk. It features a man in a light-colored suit jacket and dark shirt speaking on stage. He is gesturing with his hands while speaking. The background is dark with green text that appears to say "timbre" and "prosody". The TED logo is in the top left corner. The title of the talk is "How to speak so that people want to listen | Julian Treasure". Below the title, it says "31M views • 7 years ago". There is a "TED" badge with a checkmark. A subtitle box contains the text "Have you ever felt like you're talking, but nobody is listening? Here's Julian Treasure to help you change that.". At the bottom right, there is a timestamp "9:59".

Communication



How to speak so that people want to listen | Julian Treasure

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Honesty

be clear and straight

Communication



How to speak so that people want to listen | Julian Treasure

31M views • 7 years ago

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Have you ever felt like you're talking, but nobody is listening? Here's Julian Treasure to help you speak so that people want to listen. He'll teach you how to speak with more passion, clarity and presence.

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Honesty

Authenticity

be yourself

Communication



How to speak so that people want to listen | Julian Treasure

31M views • 7 years ago

TED TED ✓

Have you ever felt like you're talking, but nobody is listening? Here's Julian Treasure to help you change that.

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Honesty

Authenticity

Integrity

be your word

Communication



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Honesty

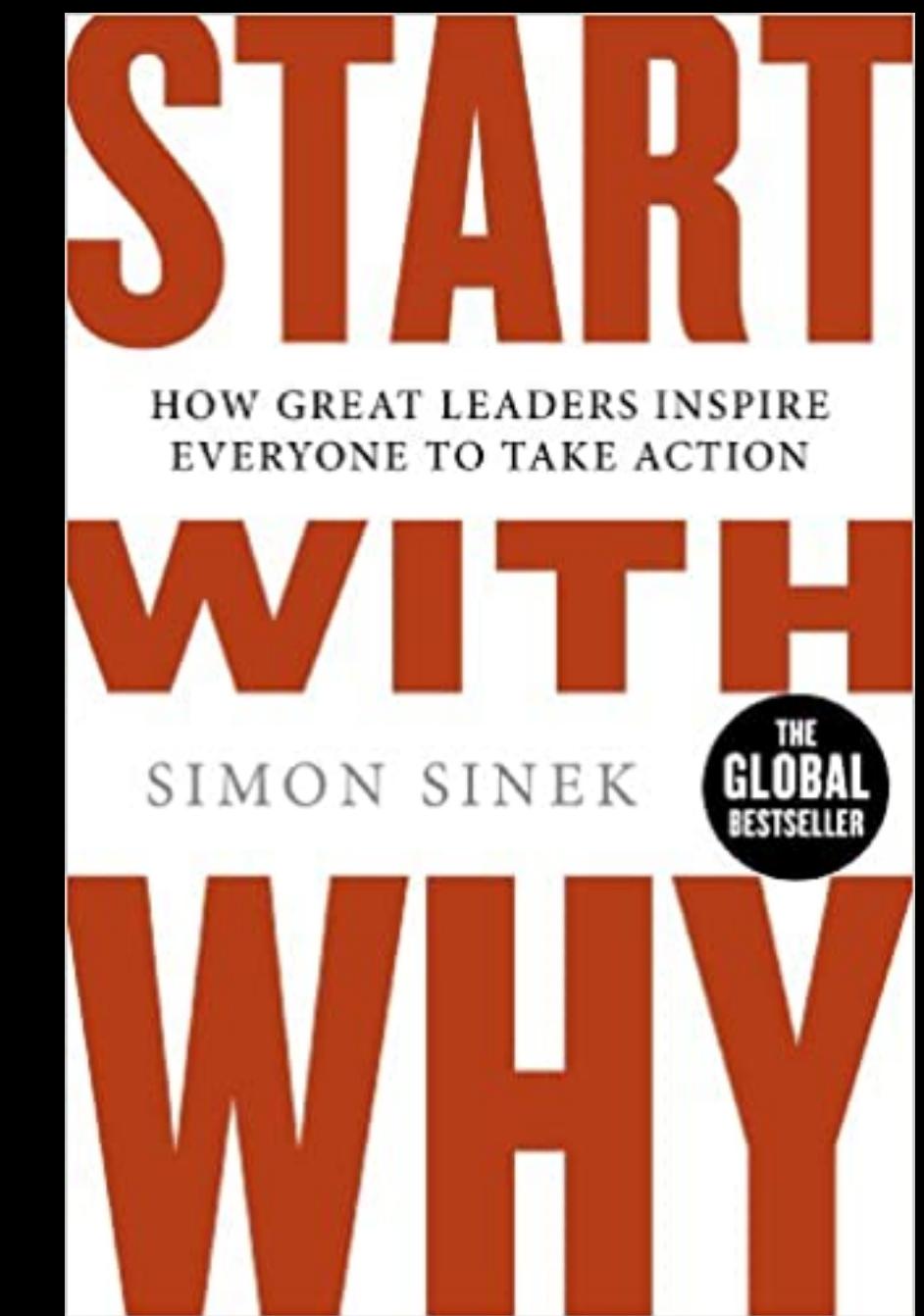
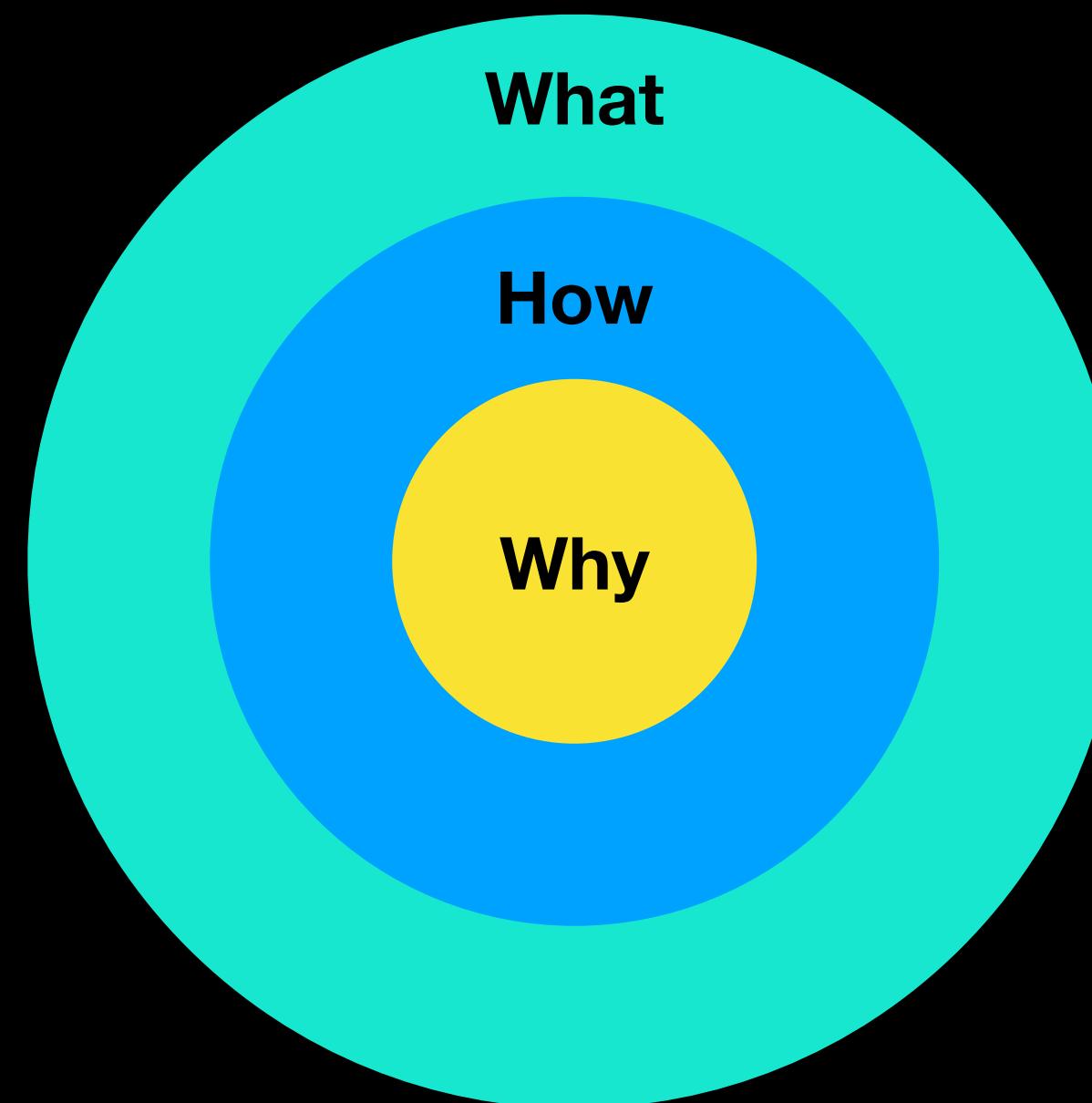
Authenticity

Integrity

Love

wish them well

The golden circle by Simon Sinek



Simplification



The importance of silence - Sadhguru

“See if you can articulate the same things that you’re saying with half the number of words. Suddenly you will become extremely conscious of everything.”

Your mantra for success in written and oral communication:

simplify, simplify, simplify!

Focus on the results and not on methods

Communication



A few tips for improving presentation skills



Tell a story of your data analysis and not what
you've done

A few tips for improving presentation skills



1. One message per slide

A few tips for improving presentation skills



1. One message per slide
2. Avoid text

A few tips for improving presentation skills



1. One message per slide
2. Avoid text
3. Increase size of the key objects

A few tips for improving presentation skills



1. One message per slide
2. Avoid text
3. Increase size of the key objects
4. Use contrast to guide people's attention

A few tips for improving presentation skills



1. One message per slide
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3. Increase size of the key objects
4. Use contrast to guide people's attention
5. Maximum of 6 objects per slide

A few tips for improving presentation skills



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A few tips for improving writing skills



- 1. Start at the end (or focus on findings first)**
- 2. Be prepare to revise**
- 3. Cut down on long words**
- 4. Be brief**
- 5. Think of the reader**

A. S. C. Ehrenberg. Writing Technical Papers or Reports. *The American Statistician*, 36(4), 326-329, 1982.

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Are these competences enough?

Are these competences enough for statistical
leadership?

Leadership is a choice and not

Simon Sinek

My publication record

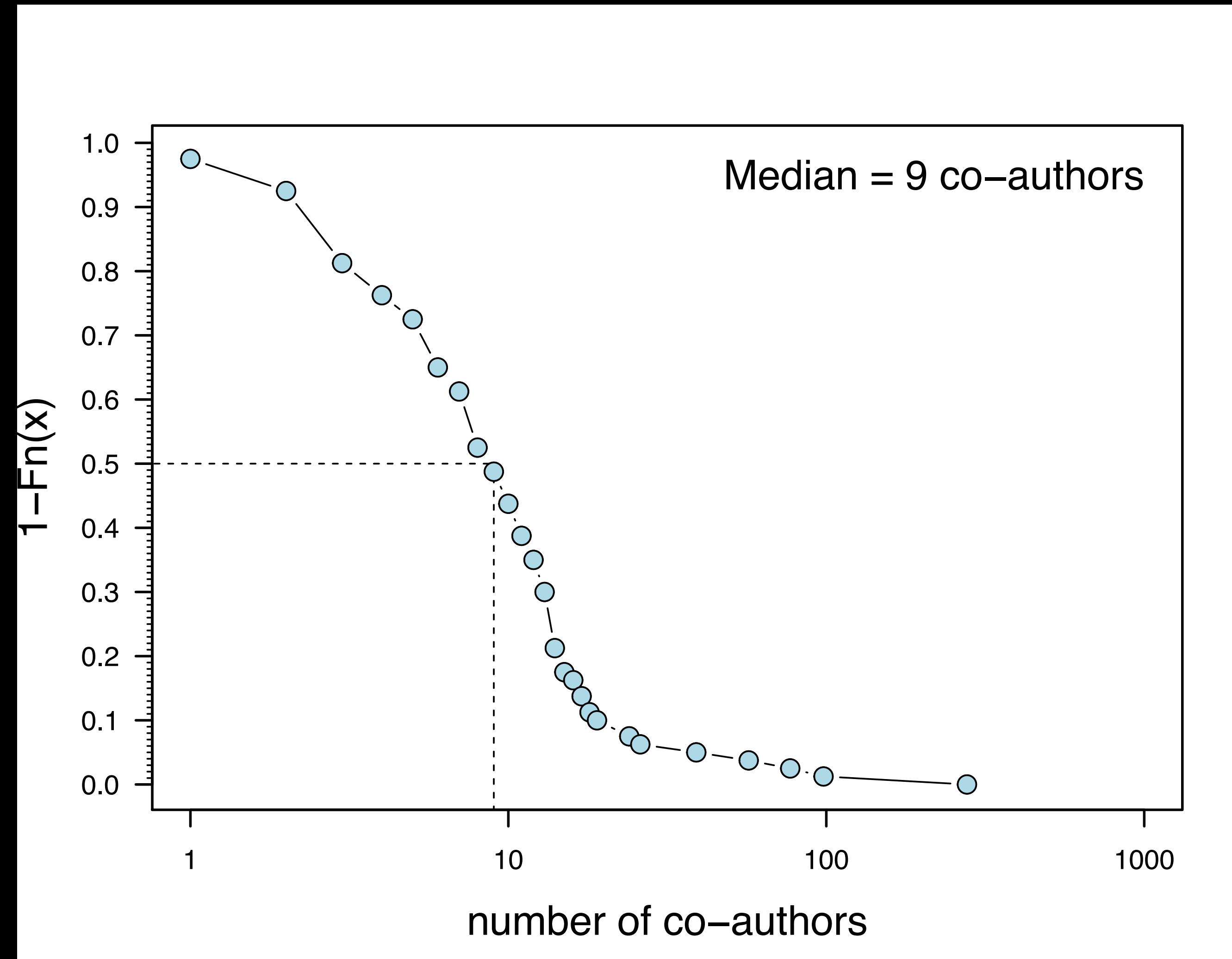
96 papers (ORCID)

1035 co-authors
(Scopus)

My publication record

96 papers (ORCID)

1035 co-authors
(Scopus)



Reasons for a good publication record

Member of multidisciplinary research groups

@Institute Gulbenkian de Ciência, Portugal



Theoretical Immunology /
Quantitative Biology Group

2001-2010

The London Great Experience



@London School of Hygiene & Tropical Medicine, United Kingdom

2010-2019



Reasons for a good publication record

Member of multidisciplinary research groups

Research on complex topics



Reasons for a good publication record

Member of multidisciplinary research groups

Research on complex diseases

Statistical consultancy

Statistical consultancy

“P-value” provider

Minimum input on the analysis and interpretation
Limited writing (Materials & Methods)

Diluted visibility in publications (middle authorship)

A recent shift

Statistical consultancy



Statistical Leadership

“P-value” provider

Minimum input on the analysis and interpretation

Writing limited to Materials & Methods

Diluted visibility in the authorship (middle authors)

Beyond the role of “P-value” provider

Increased input on the analysis and interpretation

Extended writing beyond Materials & Methods/Re

Higher visibility in publications (last authorship)

A recent shift

Statistical consultancy



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Two reasons

Change in mindset

Wanting to lead my own projects and
research group

Change in research focus

From malaria and genetics to chronic
Fatigue Syndrome

My research group



Immune-Stats Group

Members

João Malato
André Fonseca
Frederico Moreira
Fernando Madaíl

Clara Cordeiro (our guest)

Find us: www.immune-stats.net

Two reasons

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Wanting to lead my own projects and
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From malaria and genetics to chronic
fatigue syndrome

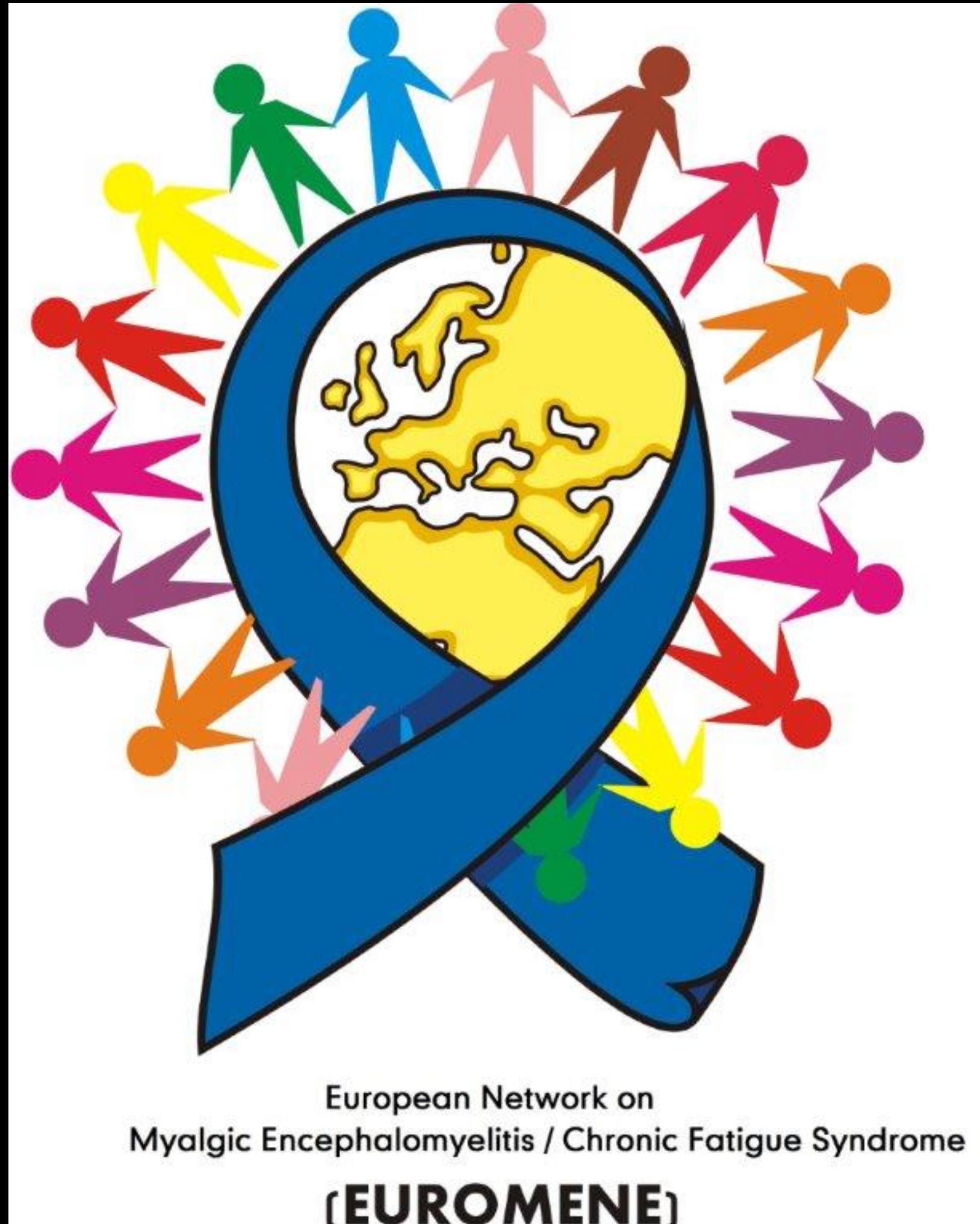
The EUROMENE experience



Portuguese representative

Member of the managing committee

The EUROMENE experience



Leveraging past experience in immunology

Perceived as a researcher (who also knows statistics)

Less competition

Higher chance of making true impact



Pathway for research independence

Final words

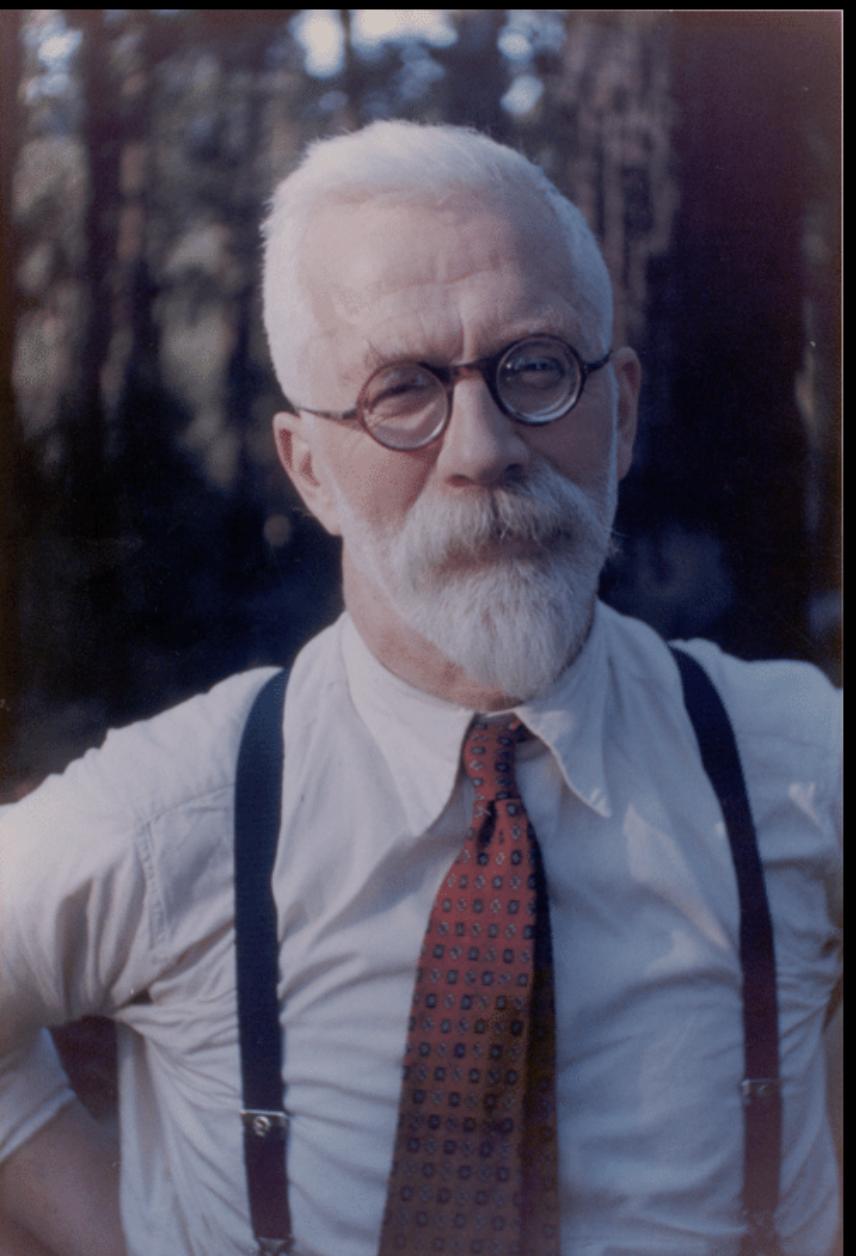
- Prepare to do research beyond methodology

Final words

- Prepare to do research beyond methodology
- Present yourself as a scientist who also loves statistics

Final words

- Prepare to do research beyond methodology
- Present yourself as a scientist who also loves statistics



Ronald Fisher

Major contributions in
Genetics



Adrian Raftery

Major contributions in
Sociology and Atmospheric
sciences

Final words

- Prepare to do research beyond methodology
- Present yourself as a scientist who also loves statistics
- Get training soft skills in active listening, networking,
and communication

Final words

- Prepare to do research beyond methodology
- Present yourself as a scientist who also loves statistics
- Get training soft skills in active listening, networking,
and communication
- Start today your network of collaborators

Reading/listening material

THE AMERICAN STATISTICIAN
2019, VOL. 73, NO. 2, 109–116: General
<https://doi.org/10.1080/00031305.2017.1336484>

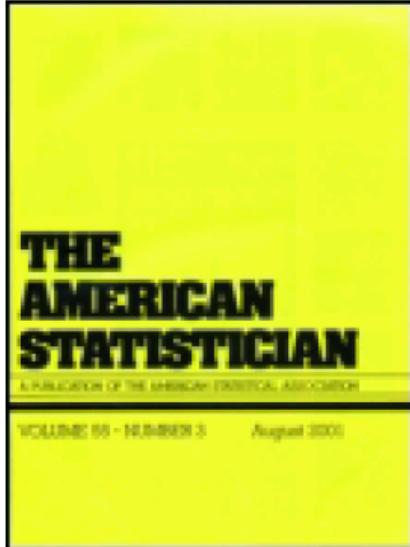
 Taylor & Francis
Taylor & Francis Group

GENERAL OPEN ACCESS 

Leadership in Statistics: Increasing Our Value and Visibility

Eric W. Gibson 

Biostatistical Sciences and Pharmacometrics, Novartis Pharmaceuticals, One Health Plaza, East Hanover, NJ


The American Statistician
Publication details, including instructions for authors and subscription information:
<http://www.tandfonline.com/loi/utas20>

The Role of the Statistician: Scientist or Shoe Clerk
Irwin D. J. Bross ^a
^a Roswell Park Memorial Inst., 666 Elm St., Buffalo, N.Y., 14203, USA
Version of record first published: 12 Mar 2012.

