



Is Collaboration a Scientific Virtue?

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The Plan

- Who is Steve ...
- ... What is his problem?
- A Promising Answer
- With Two Problems.
- Aristotle to the Rescue?

Who is Steve?

- A Philosopher
 - Conceptual
 - Abstract
- A Member of TDI (Toolbox Dialogue Initiative)
 - Dialog for
 - Collaboration
 - Better Science

What is his Problem?

- *What is it to be a good scientist?*
- Motivation
 - Practical – Responsible Conduct of Research Training
 - Theoretical – Better science = what better scientists do
- What might ‘good’ mean?
 - Not merely success
 - famous but questionable (e.g. Watson and DNA)
 - Not merely ethical
 - Conscientious but plodding
- *To *flourish* - to do well by doing right*

A Promising Answer #1

- Scientific Virtue Theory
- Virtue Theory (from Aristotle)
 - Humans should aim to fulfill their *potential*
 - Virtues are traits/dispositions/habits that support that goal
 - E.g. fairness, courage, generosity

A Promising Answer #2

- Scientific Virtue Theory
 - Scientists should aim to fully realize the aims of science
 - To embody the scientific ideal (practices and goals)
- Scientific Virtues are traits/dispositions/habits that support that goal
- Examples – curiosity, honesty, courage, perseverance and humility to evidence

Two Problems

- Where is collaboration?
 - Plausibly a scientific virtue
 - No account in the literature* thus far
- A Possible Story
 - The habit of working with other
- BUT Our reasons for working with others are unstable** - so maybe not a habit.
 - A Note on 'ought' vs. 'can'

Aristotle to the Rescue #1

- Aristotle on Friendship
- 3 kinds
 - Usefulness
 - Pleasure
 - Virtue
- Suggestion -
 - Collaboration is Scientific Friendship

Aristotle to the Rescue #2

- Variation in motives for working together is not a problem
 - Different forms of scientific friendship (aka collaboration)
 - Only virtuous scientific friendship needs to be added to our list of scientific virtues
- So some collaboration (virtuous scientific friendship) is/should be a scientific virtue

Summary

- My question – What is it to flourish as a scientist?
- The Answer – Possess the Scientific Virtues
 - When in ‘Scientist Mode’ - A disposition to act in the right manner
 - E.g. curiosity, honesty, perseverance etc.
- The Worry – Where is Collaboration?
- The Solution(?) – Scientific Friendship

Next Steps

- Can we describe this virtue more clearly?
- Can we confirm its status as a virtue?
- How might we teach this virtue
 - Exemplars
 - Toolbox modules

That's all Folks!





References and Acknowledgments



- (1) Pennock, R.T and O'Rourke, M. (2017) *Developing a Scientific Virtue-Based Approach to Science Ethics Training*, *Sci Eng Ethics* 23: 242-262.
- (2) Lotrecchiano, G. R., Mallinson, T.R., Leblanc-Beaudoin, T., Schwartz, L.S., Danielle Lazar, D., Falk-Krzesinski, H.J. (2016) *Individual motivation and threat indicators of collaboration readiness in scientific knowledge producing teams: a scoping review and domain analysis*. *Heliyon*
<http://dx.doi.org/10.1016/j.heliyon.2016.e00105>
- (3) Kraut, R. "Aristotle's Ethics", *The Stanford Encyclopedia of Philosophy* (Summer 2017 Edition), Edward N. Zalta (ed.), URL = <https://plato.stanford.edu/archives/sum2017/entries/aristotle-ethics/>.