

Getting Your D&I Grant Funded

2016 Dissemination and Implementation Short Course

October 10-11, 2016

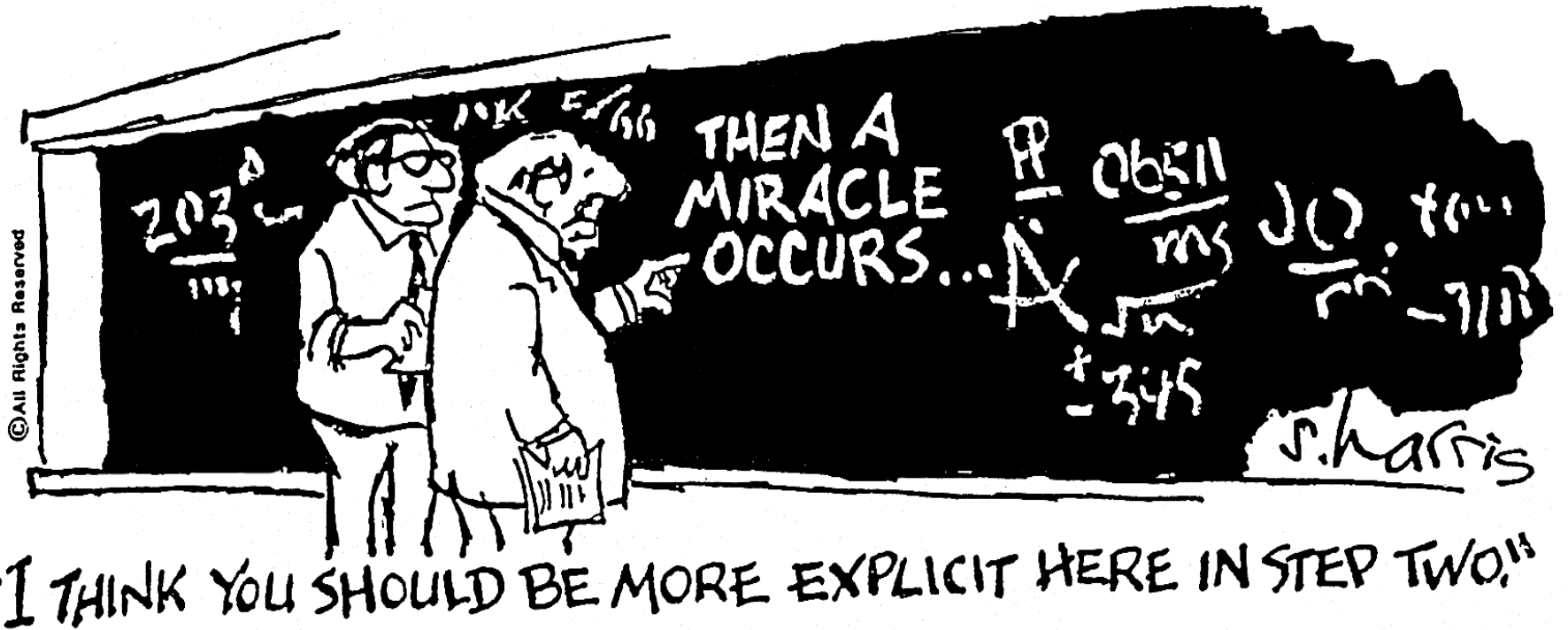
Madison, WI

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Objectives

1. Understand some key issues leading to success in grant writing/funding.
2. Provide section-by-section advice on writing a high quality D&I grant application.

What's inside the "Black Box"??



Success in grant writing

What are two key ingredients for a successful grant application?

Two sets of information

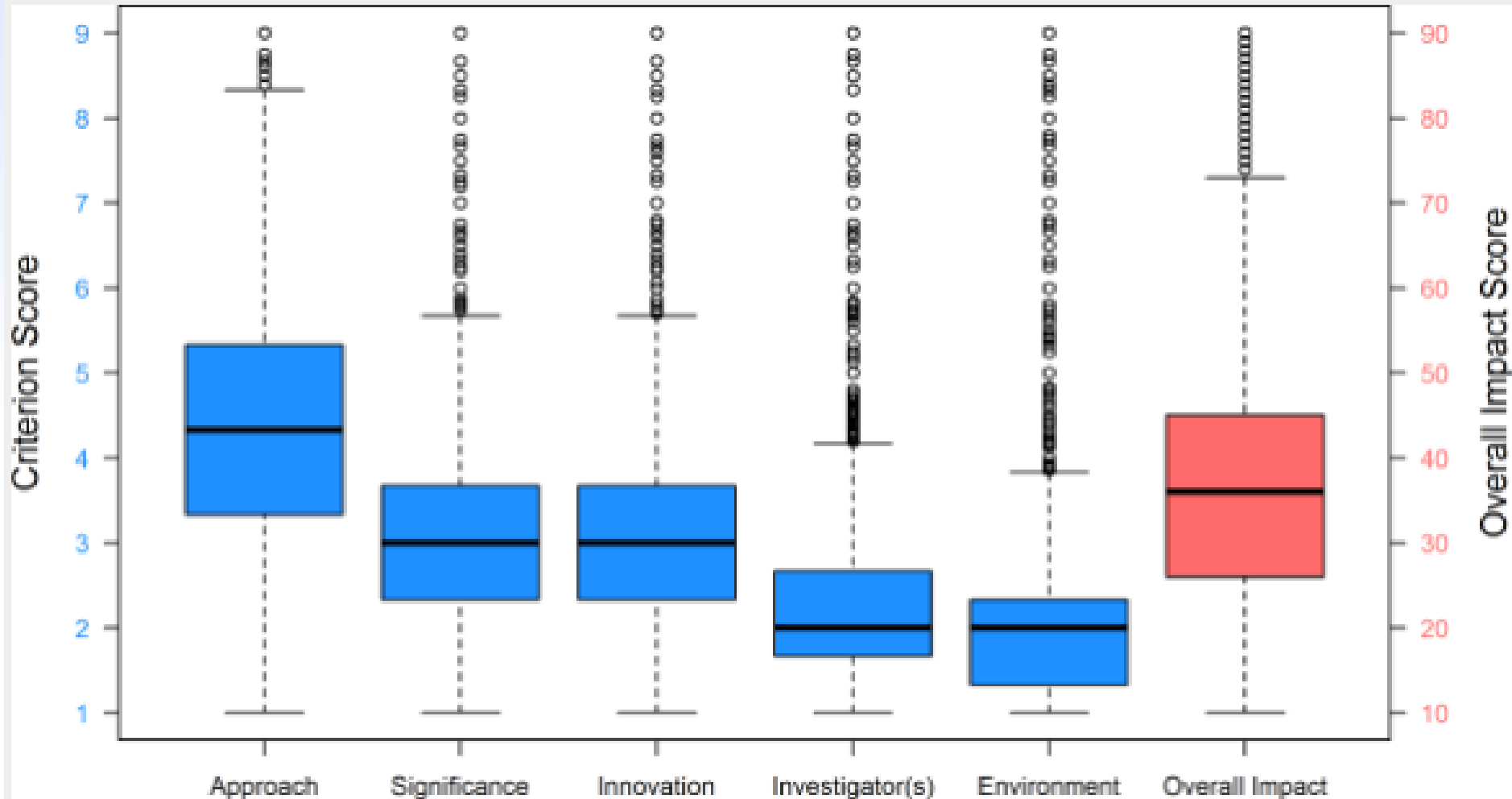
- 12 competencies from our card sorting exercise
 - classified beginner, intermediate, advanced
- Musings from study section veterans

Competency examples

Approach

- Utilize an appropriate D&I model or framework to organize a proposal and integrate research questions with clear and measurable study objectives; aims; measures, and analysis strategies.
- Identify measures that clearly assess the constructs of interest in the proposed study and are practical to apply in the proposed settings.
- Create a strategic dissemination plan for various target audiences that goes beyond the traditional publications and presentation at meetings.

What gets you funded?



— *Figure 1 from “How Criterion Scores Predict the Overall Impact Score and Funding Outcomes for National Institutes of Health Peer-Reviewed Applications” by Eblen, et al.: Box Plot Distributions of Criterion and Overall Impact Scores for R01 Applications, FY 2010–2013.*

Specific aims/hypotheses

- The first part read (you have one chance for a first impression!!)
- Include 2-5 realistic aims
- Address these throughout the proposal (esp. in measures/analyses)

The Essence of Specific Aims

- This is where reviewers decide whether they like your application (or not)
- Set up the general problem and your specific take on it
- Sell the **Sizzle**
 - What is your unique contribution to new knowledge on an important problem?
- 2-4 realistic aims
 - That grandma would understand
 - That lay out what the project is about
 - That relate & follow a logical order but still can be accomplished independently
 - 1-2 lines (Not a paragraph! Not how you will accomplish them, but what you will accomplish)
- Sell the **Steak**
 - How you will accomplish your aims, in broad brush strokes
- Bring it home
 - Implications
 - How the world will be a better place after your project is accomplished

Tips

- **Context:**

- How will a reviewer encounter this application?
 - Heavy load of applications to review, not enough time, tight timeline, working on weekends/night
 - If your application is difficult to understand, boring, or doesn't seem important, you have no chance. And Aims is the first thing reviewers will read.
 - But, if they pick it up, and after the aims say to themselves “Oh, that’s interesting.” And if the reading doesn’t make them have to re-read any lines, but just draws them into a compelling story, you are halfway there.

- **Audience:**

- Depending on where you submit, reviewers may know a lot about your topic or relatively little.
- The way you write in those situations is quite different.
 - To a familiar audience, don't belabor things that will be obvious to them;
 - For reviewers from another discipline, explain your ideas and work in plain language and not in the jargon of your discipline.

Tips

- **Aesthetics:**

- An Aims page that is dense, wall-to-wall single spaced text looks overwhelming and uninviting.
- Use a more journalistic style with smaller chunks separated by space.

- **Organization:**

- Recognize that the structure and order of your Aims dictates how the approach section will be written.
- Think about what a logical flow and order would be, and make sure that later sections of the application follow what you've established on the Aims page.

Strong focus on the approach

- Make this the core of your application
- Design
 - Design rigor matches the research questions
 - Address key threats to internal validity
 - Address external validity (often ignored)

Approach (continued)

- Conceptual framework/theory
 - Have a framework
 - Be sure it fits your aims
 - Many to choose from (over 60)
 - Avoid inventing a new one unless absolutely necessary (see Tabak RG et al., in *AJPM* 2012)
 - Link with aims, activities, measures, analyses

Approach (continued)

- Settings, recruitment & sampling
 - Why these settings?
 - How to recruit
 - Experience reaching the population
 - Partnership with/ engagement of stakeholders
 - Issues of external validity
 - Pilot data are often important for an R01

Approach (continued)

- Specify a measure or procedure for measuring each variable and document:
 - feasibility, reliability and validity of each measure
 - Suitability for the population(s) studied including respondent burden
 - How new/adapted measures were pretested and whether they are psychometrically sound



Approach (continued)

- Analytic methods
 - Link well with aims
 - Include estimates of power if appropriate
 - For qualitative work, show rationale for sample size and methods for analyzing and interpreting data
 - For mixed methods projects indicate:
 - how the data are to be integrated and by whom the integration will be achieved

Approach (continued)

- External validity
 - Particularly important for D&I grants
 - Often missing in the literature
 - Thoughtful approach for collecting EV data
 - Costs, adaptation, sustainability
 - Who participates or not, at multiple levels

Approach (continued)

- Management & Dissemination plan (D4D)
 - Describe how you will manage the project
 - Include a time line
 - Describe the uses of your findings
 - Can you design for dissemination? (later)
 - Sustainability

Significance

- Scope of the problem (keep it brief)
- Attributable risk (better yet, prevented fraction)
 - The meaning of “scale up”
- Careful (not exhaustive) review of key literature to set up your study
- Needs in D&I research
- Gaps in literature (the scientific premise)

Defining what “evidence-based” means...



“Then we’ve agreed that all the evidence isn’t in, and that even if all the evidence were in, it still wouldn’t be definitive.”

Innovation

- In the eye of the beholder?
- What makes your study innovative?
 - Study population (esp. disparities)
 - New method of adaptation
 - Applying a new method (systems, CBPR, network analysis)
 - Using a non-health theory

For CBPR/PCORI approaches...

- Think about framing as stakeholder engagement
- A nice theme for framing D4D
- Useful in adaptation of evidence-based approaches

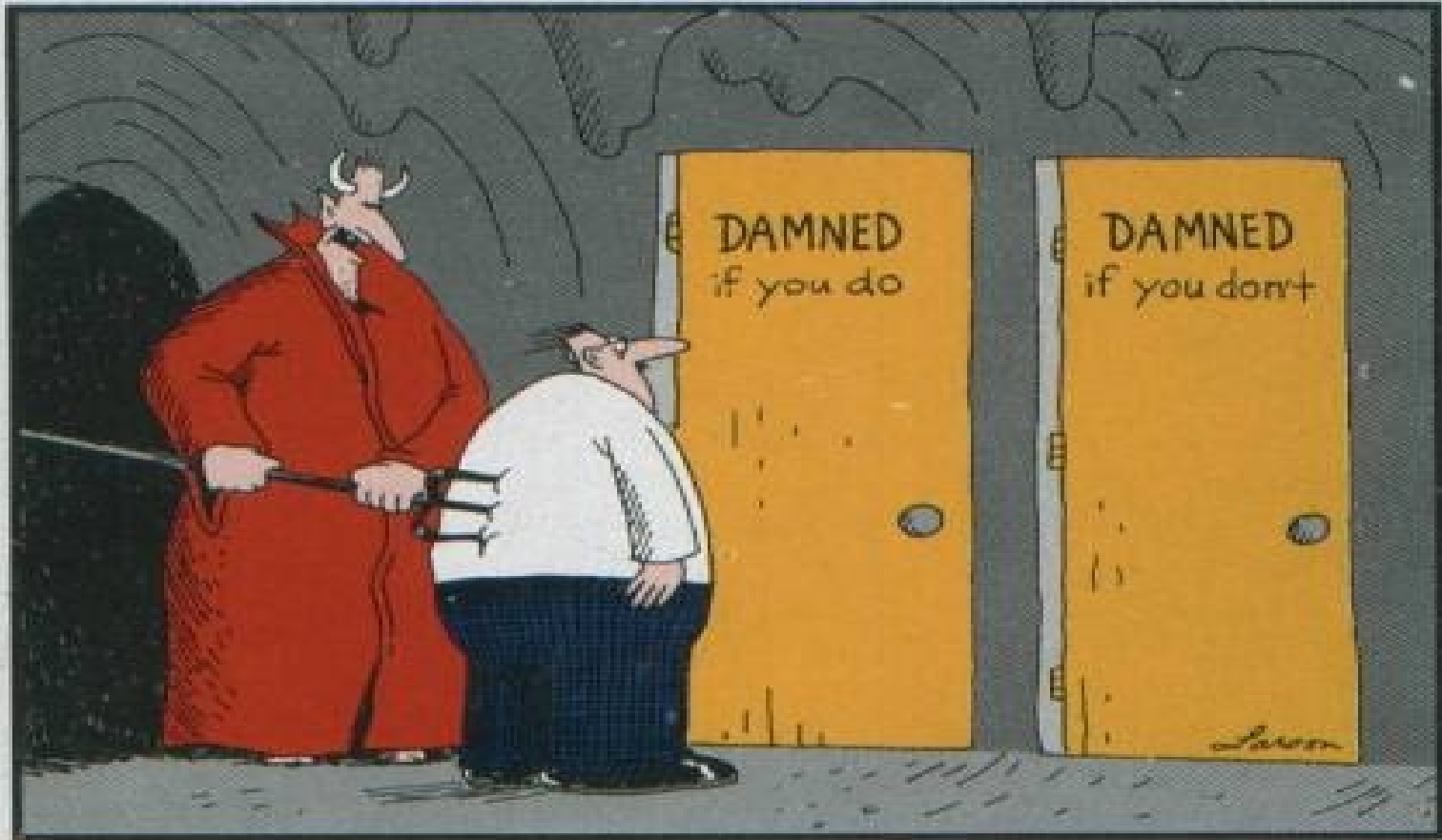
Overarching issues & tips...

- Read the funding announcement carefully
- Smaller grants = easier to get funded
- Think like a reviewer (busy, quick reaction, easily irritated, may be novices to D&I research or your content area)
- Match the grant type to your project/aims
- Discuss your idea with the program officer
- Turn to your institution for pilot funding to build the foundation for a larger grant

Overarching issues & tips...

- Use tables/figures effectively
- Write, re-write, budget plenty of time to present your best work
 - Unlike a journal article, a grant application should be as close to perfect as possible
- Hold a pre (mock) study section (seek out brutal reviewers)
- Participate in a review (may be ECR)
- Just like the best baseball players have a short memory at the plate; top scientists need to learn from rejection, build on it and move on.

And decision points are not always clear...

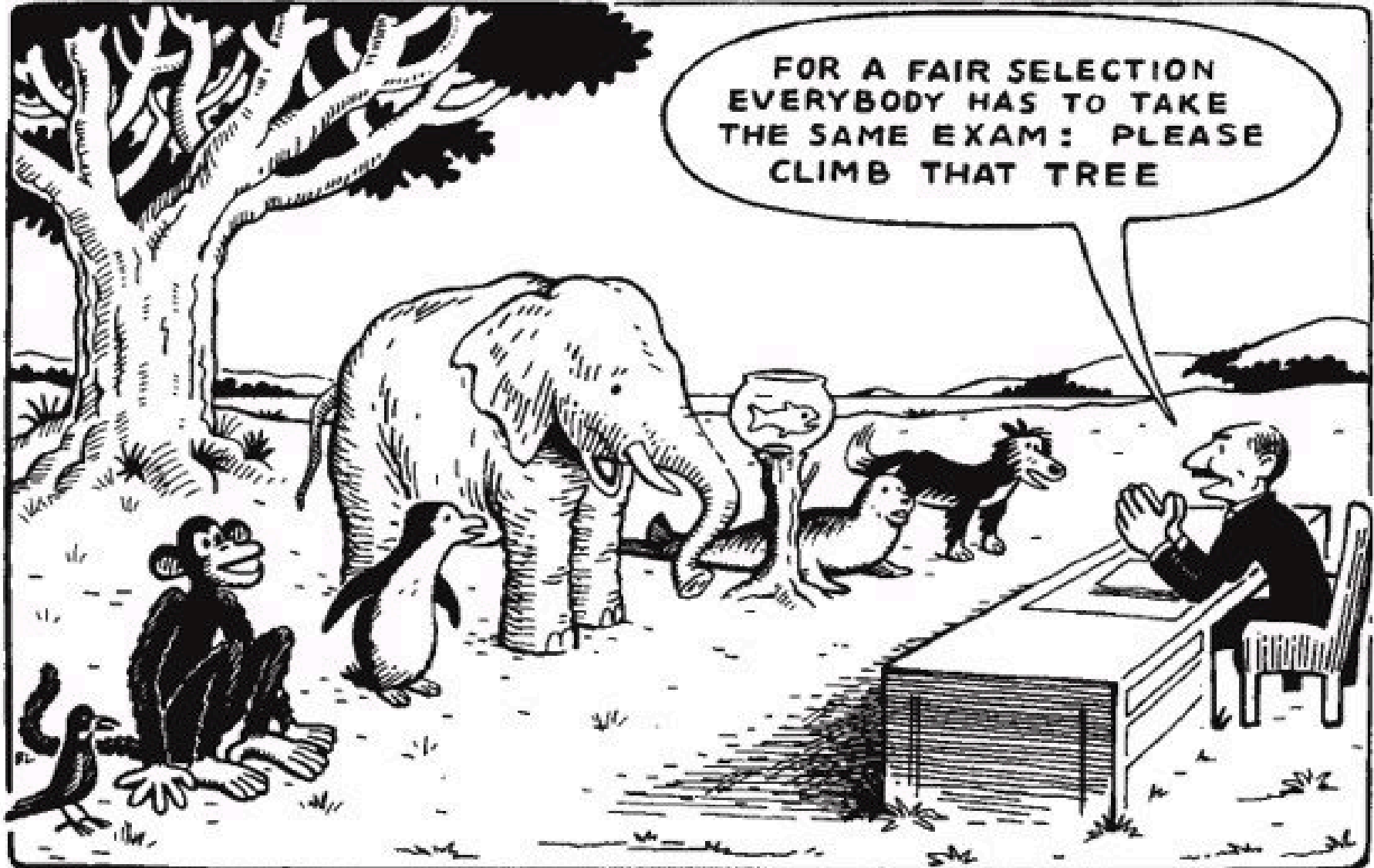


“C’mon, c’mon — it’s either one or the other.”

Resources

- Proctor et al- Ten Tips on getting your IS grant funded
[Impl. Science, 2012, 7:96](#)
- Brownson et al—successful D&I grant writing
<http://onlinelibrary.wiley.com/doi/10.1111/cts.12356/abstract;jsessionid=FA1D95861E426B4BF527EFA722EFA2B.f03t04>
- NCI website- Content analysis of funded grants:
<http://cancercontrol.cancer.gov/IS/pdfs/DandI-PAR-Grant-FundedContentAnalysis.pdf>
- UNC D&I website containing successful grant applications
<http://impsci.tracs.unc.edu/>

It won't always seem fair....



With the right preparation,
opportunity, and hard work...



THANKS to Russ Glasgow, Matt
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Questions

