Protecting (Preserving?) Behavioral Research at the NIH

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A Behavioral Science Bumper-Sticker

Change is inevitable
Growth is optional
Key questions to think about

- How do we **protect** basic behavioral and social science research in this era of translational and applied research?
- Are we satisfied with the **quality** overall of behavioral sciences research? (Is our own “house” in order?)
- What is **unique** about BSSR – advantage or disadvantage?
- How do we **best convey** the importance of BSS research and to whom?
Protecting BSSR...

In an era of translational/ applied research
Basic...

- What IS “basic” behavioral science research? (some non-BSS see all BSS work as “applied”)
- Must “basic” now imply inter- or transdisciplinary work?
- What about “within domain interdisciplinary” research? (interdisc but within BSS)
- Does all “basic” research have to address or link to a biological or biomedical issue?
Increased integration with biomedical disciplines

- What particular behavioral domains are poised to benefit from such integration?
- If so what are some examples? (cog neuroscience is already moving in this direction rapidly)
- Is there a multidimensional or reciprocal relationship between basic and applied research that is viable in today’s world?
- Is cross training a possible solution or a dilution?
Pasteur’s Quadrant
A way to view BSS Research
## Quadrant Model of Scientific Research
(Stokes, 1997)

<table>
<thead>
<tr>
<th>Quest for fundamental understanding</th>
<th>Considerations of use</th>
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<tbody>
<tr>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td>Pure basic research (Bohr)</td>
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<tr>
<td>No</td>
<td>“Random Walk” research (Childress, 1999)</td>
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The Pasteur Attitude in Psychology
(Landauer, 2003)

- “Efforts in Pasteur’s quadrant, because they avoid the dangers of excessive-abstraction, simplification and irrelevance, are the most productive, both of scientific advance and of practical value.”

- “Education as example—the primary venue in which society intentionally focuses on making a cognitive function happen well, and where success and failure can tell us what we do and do not know…with some guarantee that the knowing is important to understanding the target phenomena.”
“Protecting” BSSR

- Should “downstream” application be required to legitimize basic research in the behavioral sciences?
- Are we moving back to a linear model, where all basic work must have applied outcomes?
- If so, is this a double standard or is all science being pushed in this direction?
- What are most productive ways to position behavioral sciences for the present day and the future?
- Will a notion of “protection” serve to isolate us from opportunities?
The Quality of BSSR

Is our own house in order?
The quality of behavioral science research

- Have we become too narrowly focused in some areas?
- How do we determine when a new paradigm or methodology is needed?
- How do we support such efforts given inherent conservatism? (e.g. peer reviewers)
- Is behavioral science too “deep” or “narrow”, social science too “broad”? (the sampling vs measurement depth continuum)
Uniqueness of BSSR

Does it help or hinder, or both?!
How is behavioral science unique and what challenges does that raise?

- We want to link to biological/medical science, but must we be “just like them”?
- Must everything meet the Randomized Controlled Trial standard, or can we learn from other designs as well? (longitudinal work, practicalities of RCTS)
- Timing to results/application – e.g. longitudinal research
- Is every regulation and policy applicable? (IRB approval/HIPPA regulations/Clinical research [=all humans])
Communication

What Message and to Whom?
What is the Message?

- Does our future rest on being able to show applications in daily life?
- Can we clearly lay out the link between basic and “translational” research in a way the justifies supporting both even when they are not linked within the particular research?
Thoughts about possible message, from the last decade… (Stokes, 1997)

- “A clearer understanding by the scientific and policy communities of the role of use-inspired basic research can help renew the compact between science and government, a compact that must also provide support for pure basic research.”

- “Agendas of use-inspired basic research can be built only by bringing together informed judgments of research promise and societal need.”
To Whom…

- Who needs to hear this message?
  - Congress, Public, Funders, Our Own Scientists

- How can we best convey it to these audiences?
Congress and the Public

- Stokes: Those who used the linear Basic → Applied model did so to simplify the message for policy makers and public
- Do we still need to be so simplistic? Today’s “audiences” are more sophisticated, and more demanding.
- How can we use those facts?
Our own scientists

- When is change necessary to scientific progress?
- When we recognize the need for change (of paradigms, approach, methods, etc), whose role is it to push the field, and how should this be done?
- What are the optimal approaches to leading the field in new directions?
In Conclusion...an example

- READING FIRST Legislation
- Love it or hate it, it stemmed from Congress accepting that
  - Failure to learn to read is a public health issue
  - Evidence-based practice makes sense
  - Accountability requires data
- All of science has public health consequences – and behavior must be part of the planning, the implementation and the assessment of scientific investigation
Change is inevitable

Growth is optional