ArtScience: A conceptual model for designing research and attracting funders

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Objectives

• To understand the unique features of art and science in their respective contribution to knowledge.

• To articulate the strengths and limitations of both art and science as means of communicating knowledge.

• To know how to advocate for art’s role by reflecting on its relationship to science.

• To apply the art-science model to medical arts promotion and research.
Science: King of the hill?

- From Ian McEwan’s “The uses of poetry”
- From Mark Slouka “Dehumanized: When math and science rule the school”
Positives: What can science do?

- Quantifiable outcomes
- Replicable results
- Real-world applications
How does art measure up?

<table>
<thead>
<tr>
<th>Science</th>
<th>Art</th>
</tr>
</thead>
<tbody>
<tr>
<td>Outcomes-oriented</td>
<td>Not outcomes-oriented</td>
</tr>
<tr>
<td>Replicable results</td>
<td>Varied effects</td>
</tr>
<tr>
<td>Tangible applications</td>
<td>Impact on attitudes</td>
</tr>
</tbody>
</table>
## Negatives: Arguments against art

- “Degenerate” “self-serving”
  
  Example: Hide/seek exhibit

- “Undisciplined”
  
  Example: SAH keynote art and self-diagnosis
Art counterarguments

<table>
<thead>
<tr>
<th>Weakness</th>
<th>Strength</th>
</tr>
</thead>
<tbody>
<tr>
<td>“Degenerate” insular, self-serving, sensationalist</td>
<td>Questioning, challenging</td>
</tr>
<tr>
<td>Undisciplined</td>
<td>Inclusive of subjectivity</td>
</tr>
</tbody>
</table>
Where does science fail?

• Communication
  Example: USPSTF recommendations

• Societal responsibility
  Example: Pentobarbital marketing
Why does science need art?

- Art can make **connections** that show the place of science within the context of timely social issues.
- Art can help **communicate** what science is attempting to do.
- Art can show how science can meet the **individual’s needs**.
## Medicine: art-science intersection

<table>
<thead>
<tr>
<th>Science deficiencies</th>
<th>Art strengths</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lack of context</td>
<td>Emphasis on context</td>
</tr>
<tr>
<td>No communications infrastructure</td>
<td>Focus on dialogue and mutual understanding</td>
</tr>
<tr>
<td>Generalized to populations</td>
<td>Geared towards individuals</td>
</tr>
</tbody>
</table>
Context: A role for art in medicine

- Critiques: Ex: Trautner, Schreiber, Kim
- Social conscience: Guidotti and Ana Devereare-Smith
Critique: Trautner-vulnerable elderly
Critique: Schreiber-patient care
Critique: Sumita Kim
Context/Conscience: Guidotti-marginalized people
Context/Conscience: Anna Deveare Smith

- Reliving stories of endurance and triumph around particular themes
Art helps medical science communicate

- Experiments in inquiry: Sofalab, SymbioticA. Liz Lerman, Heartfelt concepts
- Mutual illumination: Liz Lerman
Art helps medical science communicate
Art helps medical science communicate
Art helps science meet the individual’s needs

Art helps medicine meet the individual’s needs
<table>
<thead>
<tr>
<th>Scientific research</th>
<th>Arts-informed research</th>
</tr>
</thead>
<tbody>
<tr>
<td>Answers</td>
<td>Questions</td>
</tr>
<tr>
<td>Precision</td>
<td>Amplification</td>
</tr>
<tr>
<td>Constancy</td>
<td>Variety</td>
</tr>
</tbody>
</table>
Art-Science Funding

- Diverting funds: using science as ‘hook’
  scientific project with art slipped in
  arts project which complements science
- Track record: having a conventional research background