NATS 1700 Information Literacy Skills #1

Types of Information and how to evaluate sources

https://researchguides.library.yorku.ca/nats1700

Minglu Wang
Research Data Management / Sciences Librarian
mingluwa@yorku.ca
Objectives

• Be familiar with different types of resources
• Understand the differences between scholarly and popular sources
• Know where to find different types of information
• Use PARCA test to evaluate sources
Types of information
Watch and observe

- **Video: In Our Own Words – Libraries**
- Observe:
  - How have these students been using the libraries?
  - What resources are mentioned by these students?
  - Does anything they said surprise you?
Types of resources

• (Academic) Books
[provide thorough investigation of a topic]
Authors? Audience? Language?

• Journal articles
[report on original research, many of these are peer-reviewed]
Authors? Audience? Language?

• Newspaper/magazine articles
[current information, argument, opinion, or analysis of an issue]
Authors? Audience? Language?

• Government documents
[reports, white papers, data and statistics…]

• Encyclopedias
[concise overview of key aspects of a subject or concept]

Wikipedia is a well-known online encyclopaedia but has variable quality and should not be relied upon for your university research. If you do use it at all be sure to follow up references to other sources to check the factual content and to reference these rather than Wikipedia itself.
Peer Review Process

Only articles that meet good scientific standards (e.g., acknowledge and build upon other work in the field, rely on logical reasoning and well-designed studies, back up claims with evidence, etc.) are accepted for publication.

The highly-regarded journal *Science* accepts less than 8% of the articles it receives, and *The New England Journal of Medicine* publishes just 6% of its submissions.

<table>
<thead>
<tr>
<th>CRITERIA</th>
<th>SCHOLARLY PUBLICATIONS</th>
<th>POPULAR PUBLICATIONS (e.g. magazines, newspapers, etc...)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Advertising</td>
<td>may contain selective advertising</td>
<td>will contain extensive advertising</td>
</tr>
<tr>
<td>Authors &amp; Audience</td>
<td>written by and for academics or researchers</td>
<td>written by staff or freelance writers for a broad audience</td>
</tr>
<tr>
<td>Format &amp; Graphics</td>
<td>may include graphs and charts; seldom contain glossy pages or pictures</td>
<td>often slick and glossy; will contain photographs, illustrations and/or drawings</td>
</tr>
<tr>
<td>Language</td>
<td>may use discipline-specific language or jargon</td>
<td>uses everyday language that is accessible to the average reader</td>
</tr>
<tr>
<td>Length</td>
<td>lengthy articles with in-depth coverage of topics</td>
<td>shorter articles: usually provide broad overview of topics</td>
</tr>
<tr>
<td>Publishers</td>
<td>generally published by a professional organization</td>
<td>published for profit</td>
</tr>
<tr>
<td>Purpose</td>
<td>to inform, report, or make available original research to the scholarly world</td>
<td>to entertain, inform, or persuade</td>
</tr>
<tr>
<td>Sources</td>
<td>footnotes and/or bibliographies</td>
<td>rarely cite any sources</td>
</tr>
</tbody>
</table>

Scholarly or Popular?
From risk-seeking to risk-averse: the development of economic risk preference from childhood to adulthood

David J. Paulsen1,2,*, Michael L. Platt1,2,*, Scott A. Huettel2,28, and Elizabeth M. Brannon1,2,28

1 Department of Psychology and Neuroscience, Duke University, Durham, NC, USA
2 Center for Cognitive Neuroscience, Duke University, Durham, NC, USA
3 Center for Interdisciplinary Decision Sciences, Duke University, Durham, NC, USA
4 Department of Neuroscience, Duke University, Durham, NC, USA
5 Brain Imaging and Analysis Center, Duke University, Durham, NC, USA

Adolescence is often described as a period of heightened risk-taking. Adolescents are notorious for impulsivity, emotional volatility, and risky behaviors such as drinking and driving under the influence of alcohol. By contrast, we found that risk-taking declines linearly from childhood to adulthood when individuals make choices over monetary gambles. Further, with age we found increases in the sensitivity to economic risk, defined as the degree to which a preference for assured monetary gains over a risky payoff depends upon the variability in the risky payoff. These findings indicate that decisions about economic risk may follow a different developmental trajectory than other kinds of risk-taking, and that changes in sensitivity to risk may be a major factor in the development of mature risk aversion.

Keywords: risk, decision-making, gambling, child development, risk preference

INTRODUCTION

Imagine you are confronted with a choice between a sure $5 or a coin flip in which you could win $10 or nothing. A rational decision-maker would be indifferent to these options because they have the same expected, or average, value ($5). Yet, most people prefer the sure bet, a phenomenon known as risk aversion (Tversky and Kahneman, 1981).

A number of factors have been found to modulate risk aversion. For example, people tend to accept risks more often for smaller than for greater monetary rewards (Weber and Chapman, 2005), more often for primary (juice) than secondary (money) rewards (Hayden and Platt, 2008), and more often when offered multiple opportunities to wager than when offered only a single shot (Redelmeier and Tversky, 1992). The timing of gambles can also be a factor: risk-taking decreases when consecutive choices are spaced at longer temporal intervals (Hayden and Platt, 2007). Some species display similar risk preferences and decision strategies, for example humans and macaques show win-stay and lose-shift strategies for juice rewards (Hayden and Platt, 2008), while others, such as chimpanzees and bonobos, display risk-seeking, and risk-averse tendencies, respectively (Heilbronner et al., 2008).

Age is another factor modulating risk aversion. Several studies have shown that risk aversion increases slowly between childhood and adulthood (Levin and Hart, 2003; Levin et al., 2007; Rakow and Rahim, 2010; Weller et al., 2010). Young children are more influenced than adults by the probability of winning (Harbaugh et al., 2002), and more likely to take economic risks that are disadvantageous in the long run. Nonetheless,
Experts weigh in on what casinos will mean to Massachusetts

The Patriot Ledger
Posted Nov 10, 2012 @ 08:08 AM
Last update Nov 10, 2012 @ 08:19 AM

After years of off-and-on-again debate, the Massachusetts Legislature last year approved a plan for three full-scale casino gambling complexes in different regions of the state.

Now comes the tricky part as local and state officials review specific plans from casino developers.

The owners of Suffolk Downs racetrack in East Boston propose a $1-billion complex including a casino, two hotels and stores in a partnership with Caesars Entertainment of Las Vegas. A potential competitor emerged this week when Everett Mayor Carlo DeMaria announced that Hard Rock International is interested in building a casino on an industrial site near the Mystic River.

In Springfield, three companies have submitted applications. And plans for a Taunton casino sponsored by the Mashpee Wampanoag tribe hit a setback when the federal Bureau of Indian Affairs recently rejected a compact between the state and tribe, saying it was not generous enough to the Wampanoags.

While the opening of casinos is likely years away, their effect on the local economy could be significant. We asked members of The Patriot Ledger’s economic panel what to expect:

Scholarly or Popular?
Databases are very useful
Flow of Scientific Information
Databases

• Vast amounts of research are published everyday

• Access is difficult without a systematic approach to organizing it so that it can be found by the searcher

• academic libraries allocate significant portions of their budgets to databases and subscriptions to journals
Examples of Databases

- History of Science, Technology and Medicine
- Web of Science
- Scholars Portal Journals
- JSTOR
- ....
Databases by subject

• Use research guides to help you:
Best way to search for information you need
<table>
<thead>
<tr>
<th>Resource</th>
<th>Search tools</th>
</tr>
</thead>
<tbody>
<tr>
<td>Books</td>
<td>• Library catalogue</td>
</tr>
<tr>
<td></td>
<td>• Google Books</td>
</tr>
<tr>
<td>Journal articles</td>
<td>• Articles database</td>
</tr>
<tr>
<td></td>
<td>• Google Scholar</td>
</tr>
<tr>
<td>Newspaper/magazine articles</td>
<td>• Articles database</td>
</tr>
<tr>
<td></td>
<td>• Newspaper/magazine websites</td>
</tr>
<tr>
<td>Government documents</td>
<td>• Library catalogue</td>
</tr>
<tr>
<td></td>
<td>• Government websites</td>
</tr>
<tr>
<td>Statistical data</td>
<td>• Statistics Canada</td>
</tr>
<tr>
<td></td>
<td>• NGO websites (e.g. UN, OECD, World Bank)</td>
</tr>
<tr>
<td>Maps and Geographic Information Systems (GIS)</td>
<td>• Library catalogue</td>
</tr>
<tr>
<td></td>
<td>• Google maps</td>
</tr>
<tr>
<td>Websites, blogs, podcasts etc.</td>
<td>• Search engines</td>
</tr>
<tr>
<td>Videos</td>
<td>• Library catalogue</td>
</tr>
<tr>
<td></td>
<td>• Search engines</td>
</tr>
<tr>
<td></td>
<td>• YouTube</td>
</tr>
</tbody>
</table>
Evaluate your sources
PARCA Test

- Purpose
- Authority
- Relevance
- Currency
- Accuracy
Purpose [WHY]

• **Why does this resource exist?**
  - What is the purpose? Is it to teach, sell, promote, entertain?
  - Do the author(s) make their intentions clear? Are there political, ideological, cultural, religious, or personal biases?
  - Is the information provided by the resource fact, opinion?
  - Does it have a variety of viewpoints and arguments? Do your sources reflect different genders, ages, ethnic groups, languages, nationalities, disciplines, etc.?
Authority [WHO]

• Who wrote/produced/published the resource?
  – Is the source published by an academic publisher or a reputable organization?
  – Is an author clearly identified? What are the author’s credentials or organizational affiliations?
  – Is the author qualified to write on the topic? Degrees, professional designations, professional accomplishments and experience are indicators of qualifications.
  – If it is a website, does the url reveal anything about the source (.com, .gov, .edu, .org)
Relevance

• Does the resource meet your needs?
  – Is the information related to your topic?
  – Does it support your viewpoint or provide an alternate one?
  – Is the information and discussion at an appropriate level?

Who is the intended audience (general population, scholars, practitioners etc.)?
Currency [WHEN]

- **How current is the resource?**
  - When was the resource published or posted?
  - Is this the most current version of this information available?
  - Has the information been revised / updated? Is there proof of last update, publication date?
  - Is currency of information a concern for your topic?
Accuracy

• **Is the information in the resource reliable?**
  - Are the author’s claims supported by evidence?
  - Has the content been reviewed by other experts? Is it a peer-reviewed resource?
  - Are the language and tone biased?
  - Are there spelling or grammatical errors?
Use the PARCA test

- History of Science Society: https://hssonline.org/
- STS Wiki: http://www.stswiki.org
- Compute Canada: https://www.computecanada.ca/
Contact

Minglu Wang
Steacie Library 102J
mingluwa@yorku.ca

https://researchguides.library.yorku.ca/nats1700