# **Social Constructivism**

Reading and editing Wikipedia in an educational psychology course

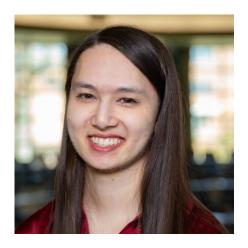
https://tinyurl.com/HuWikiconference2024

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## Hello!



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- Mainly edit Pacific
   Northwest-related articles
- Linguistics nerd

- PhD candidate in Educational Psychology & Educational Technology
- I teach a class about learning & teaching

## What brought you to this session?

- Help me make this session useful to you!
  - What are you curious about?
  - What questions do you have?
- Topics
  - Defining social constructivism
  - Wikipedia as a social constructivist tool
  - Case study: educational psychology class
  - Future directions

# Theoretical Background

## What is knowledge?

- In philosophy, <u>epistemology</u> is the study of knowledge
  - What can we know?
  - Our How do we know it?
- Many different schools of epistemology
- Two main camps (oversimplified)
  - Realism
  - Constructivism

#### Realism vs. Constructivism

#### Realism

- There exists a "ground truth" to reality
- Reality is not influenced by our perception of it
- We can describe reality through observation and data

#### Constructivism

- There is no one correct "ground truth" that defines reality
- Reality is defined by how we perceive it
- Our descriptions of reality are biased by our perspectives

# Applied to Psychology





Jean Piaget

Lev Vygotsky

Constructivist epistemology started as a philosophy

Then, it was applied to psychology

Piaget studied how children develop their ability to construct "schemas"

Vygotsky studied how children use tools, both physical and symbolic, to construct their sense of reality

## Piaget vs. Vygotsky

#### Piaget

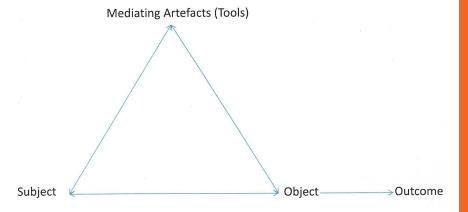
- Believed children's cognition develops in stages
- Brain development precedes learning
- The child is egotistical

#### Vygotsky

- Believed that children's cognition developed linearly
- Learning causes brain development
- The child is influenced by "more knowledgeable others"

# **Mediated Cognition**

First Generation – Vygotsky



To Vygotsky, thinking is always mediated by some tool(s)

These tools can be "internalized" so that they are cognitive processes instead of physical or symbolic tools

E.g. Using blocks to learn addition

Writing itself is a symbolic tool!

# Zone of proximal development (Learner can do with guidance)

Learner can do unaided

Learner cannot do

#### Vygotsky's Zone of Proximal Development (ZPD)

Humans gain cognitive abilities after being helped by a "more knowledgeable other"

What if that "other" is Wikipedia?

## Wikipedia manifests social constructivism



WP is a tool to socially construct knowledge

We can read, edit, cite, and talk to other editors

Reading positions us as a learner

...but editing positions us as a teacher

### Case Study: My Class

- At MSU, I teach TE 150: Reflections on Learning
- Intro to educational psychology
- Attracts not only teacher education majors, but also anyone looking for an elective
- We spend 15 weeks defining, analyzing, and arguing about learning & teaching
  - Constructivist learning theory is a big topic
- I gave a one-off lesson on Wikipedia at the end of the semester

# (Begin) Lesson Slides

# Wikipedia: Learning, Motivation, and Bias

TE 150 - Anne Drew Hu (they/them)

# How do you use Wikipedia?

What do you search for?

How do you use information?

How do you verify truth?

Do you edit?

#### WikipediA

The Free Encyclopedia

#### English

6 644 000+ articles

#### Русский

1 909 000+ статей

#### 日本語

1 370 000+ 記事

#### Español

1 854 000+ artículos

#### Italiano

1 806 000+ voci

#### Deutsch

2 792 000+ Artikel

#### Français

2 514 000+ articles

#### 中文

1 347 000+ 条目 / 條目

#### فارسي

+959 000 مقاله

#### **Português**

1 101 000+ artigos

EN Y



#### How is Wikipedia relevant to TE 150?

- Social-constructivist learning theory
  - People collectively build their understanding of the world
- Motivation & interest
  - Editors add to articles they are interested in and have confidence in
- Cognitive biases
  - The worldview of editors biases their contributions to Wikipedia

# Why you should contribute to Wikipedia



#### Why edit Wikipedia?

- Wikipedia is often our first (and sometimes last) stop for information
- Social-constructivist learning theory is reflected in its design
  - "Work together to contribute to the sum of human knowledge!"
- Your perspective can influence huge amounts of people!
- Inform yourself and fight misinformation!
- Wikipedia is the most popular nonprofit website
  - It keeps information accessible to <u>anyone</u> with basic internet access!

#### How to contribute to Wikipedia

- Start with small changes
  - Quality over quantity
- Edit articles you are passionate about
  - What knowledge are you motivated to share with people?
- Always cite your sources!
  - Citations add credibility and allow readers/editors to verify the claims

# Go try it!

Wikipedia simplified ruleset

Wikipedia editing basics (short YouTube videos)

#### Goals

- Find article(s) that interests you and need to be expanded
- Add a citation
- Add content with citations

# Wrap-Up: Bias in Wikipedia

# How Wikipedia Erases Indigenous History

https://slate.com/technology/2023/02/wikipedia-native-american-history-settler-colonialism.html

# Line 141: [[Category:Date of birth unknown]] [[Category:Duwamish tribe]] + [[Category:History of indigenous peoples of the Pacific Northwest]] [[Category:History of King County, Washington]]

#### Revision as of 08:23, 25 January 2023

For other uses, see Chief Seattle (disambiguation).

"Sealth" redirects here. For the ferry, see MV Sealth. For the camp, see Camp Sealth.

Chief Seattle (c. 1786 – June 7, 1866) was a Suquamish and Duwamish chief. A leading figure among his people, he pursued a path of accommodation to white settlers, forming a personal relationship with "Doc" Maynard. The city of Seattle, in the U.S. state of Washington, was named after him. A widely publicized speech arguing in favour of ecological responsibility and respect of Native Americans' land rights had been attributed to him.

The name Seattle is an Anglicization of the modern Duwamish conventional spelling **Si'ahl**, equivalent to the modern Lushootseed spelling si?al IPA: ['si?a:t] and also rendered as **Sealth**, **Seathl** or **See-ahth**. According to elder taqwšəblu?, his name was traditionally pronounced si?aλ. [4]

# Chief Seattle si?al

#### **Consider: Bias in Wikipedia**

Think about the articles you edited. How might they be biased based on the perspectives of the authors?

How can bias on Wikipedia cause harm in the real world?

#### What is truth?

#### Wikipedia and the Meaning of Truth

"The threshold for inclusion in Wikipedia is verifiability, not truth"

If it's false, but verifiable, it can go on Wikipedia

Was the user who added the genocide label following the rules?

#### There is hope!

The Women in Red project is addressing the gender gap in Wikipedia articles

Adding our own perspectives makes Wikipedia more diverse

Small edits add up



You can make Wikipedia better!

# (End) Lesson Slides

### My Results

- Students had a hard time getting started editing Wikipedia
- Even before using the editor, they didn't really know what to edit!
- The concept of actually editing was so foreign that they were stuck

#### Questions for the audience

- Have you ever helped someone start editing Wikipedia?
- What motivates you to edit?

#### **Future Directions**

- Ed Psych course redesign
  - Pepper Wikipedia throughout, gradually introduce editing
- Other possibilities
  - Information science
  - History of technology
  - Science and technology studies (STS)
  - Data science (Is Wikipedia a good source of data?)

# Thank you! Questions?

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