

DigiVis

Leveraging MediaWiki for the Digitization and Visualization of Digital Archives

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Wir bauen Brücken. Seit 1669

Project DigiVis

- [University of Innsbruck](#)
- Interdisciplinary Team
 - Teaching, Media Studies, German Studies, History, Computer Science
- Sponsored by the [Tyrolean government](#)

10 REDUCED
INEQUALITIES



11 SUSTAINABLE CITIES
AND COMMUNITIES



- MediaWiki + extensions as framework
- Structuring, visualizing, and analysing of digital archives
- Prototypical case studies with materials from cooperation partners

Digital Archives

Partners

- Ernst von Glasersfeld Archive
- Tyrolean State Archive
- Diocesan Archives Brixen
- City Archive Innsbruck
- Museum of the Peoples, Schwaz



- Focus on publications of Ernst von Glasersfeld
- Analyze and display discursive argumentation structures
- Abstraction-levels with Semantic MediaWiki (SMW) and Semantic Text Annotator (STA)

Case Study

EvG-Archive

Abstraction, Re-Presentation, and Reflection: An Interpretation of Experience and of Piaget's Approach^[1] [edit]

The understanding, like the eye, whilst it makes us see and perceive all other things, takes no notice of itself; and it requires art and pains to set it at a distance and make it its own object. (John Locke, 1690)

[2]

As adults we are constantly deceiving ourselves in regard to the nature and genesis of our mental experiences. (John Dewey, 1895)

[3]

One of the remarkable features of the Behaviorist era in American psychology is that so many leaders and followers of that creed could claim to be Empiricists, cite John Locke as their forefather, and get away with it.

Had they read the first chapter of "Book II"

[4]

of his major work, An Essay Concerning Human Understanding, they would have found, among many others, the following enlightening statements. Paragraph 2 has the heading: "All Ideas come from Sensation or Reflection." Paragraph 4 has the heading "The operations of our Minds", and it is there that Locke explains what he means by "reflection":

This source of ideas every man has wholly in himself; and though it be not sense, as having nothing to do with external objects, yet it is very like it, and might properly enough be called internal sense. But as I call the other Sensation, so I call this Reflection, the ideas it affords being such only as the mind gets by reflecting on its own operations within itself.

In our century, it was Jean Piaget who vigorously defended and expanded the notion of reflection. He lost no opportunity to distance himself from empiricists who denied the mind and its operations and wanted to reduce all knowing to a passive reception of objective "sense data".

Yet, he should not have found it difficult to agree with Locke's division of ideas because it is not too different from his own division between figurative and operative knowledge.

Similarly, I feel, Locke would have had a certain respect for Piaget's effort to set understanding at a distance and to make it the object of investigation. And both men, I have no doubt, would have agreed with Dewey about the risk of deceiving oneself by taking mental experiences as given. It is therefore with caution that I shall proceed to discuss, in the pages that follow, first my own view of reflection, abstraction, re-presentation, and the use of symbols, and then a tentative interpretation of Piaget's position. If, at times, I may sound assertive, I would beg the reader to keep in mind that I am fully aware of the fact that I am merely offering conjectures—but they are conjectures which I have found useful in constructing a model of mental operations.

Reflection [edit]


If someone, having just eaten an apple, takes a bite out of a second one, and is asked which of the two tasted sweeter, we should not be surprised that the person could give an answer. Indeed, we would take it for granted that under these circumstances any normal person could make a relevant judgment. We cannot observe how such a judgment is made.


But we can hypothesize some of the steps that seem necessary to make it. The operations that accompanied the eating of the first apple would have to be remembered, at least until

View annotations 38

Assign categories to text passages. (step 1)

Edit Argumentation2: Annotation:Text:Abstraction, Re-Presentation, and Reflection: An Interpretation of Experience and of Piaget's Approach/Majd8zzyla

Thema: Erfahrung  

Thema: Vorstellung  

Neues Thema hinzufügen

Save page Show preview Show changes [Cancel](#)

Add further SMW-properties to each annotated text passage. (step 2)

Argumentation2

If someone, having just eaten an apple, takes a bite out of a second one, and is asked which of the two tasted sweeter, we should not be surprised that the person could give an answer.

Indeed, we would take it for granted that under these circumstances any normal person could make a relevant judgment. We cannot observe how such a judgment is made. But we can hypothesize some of the steps that seem necessary to make it. The sensations that accompanied the eating of the first apple would have to be remembered, at least until the question is heard.[5] Then they would have to be re-presented and compared (in regard to whatever the person called "sweetness") with the sensations accompanying the later bite from the second apple. This re-presenting and comparing is a way of operating that is different from the processes of sensation that supplied the material for the comparison.

Reflecting upon experiences is clearly not the same as having an experience.

View annotations 28

Argumentation2

Berkeley, of course, was aware of the fact that he would apply the name "apple" not only to one unique "thing", but to countless others that fitted his description in terms of "colour, taste,

Apply a second annotation on previously annotated argumentations. (step 3)



4 QUALITY
EDUCATION

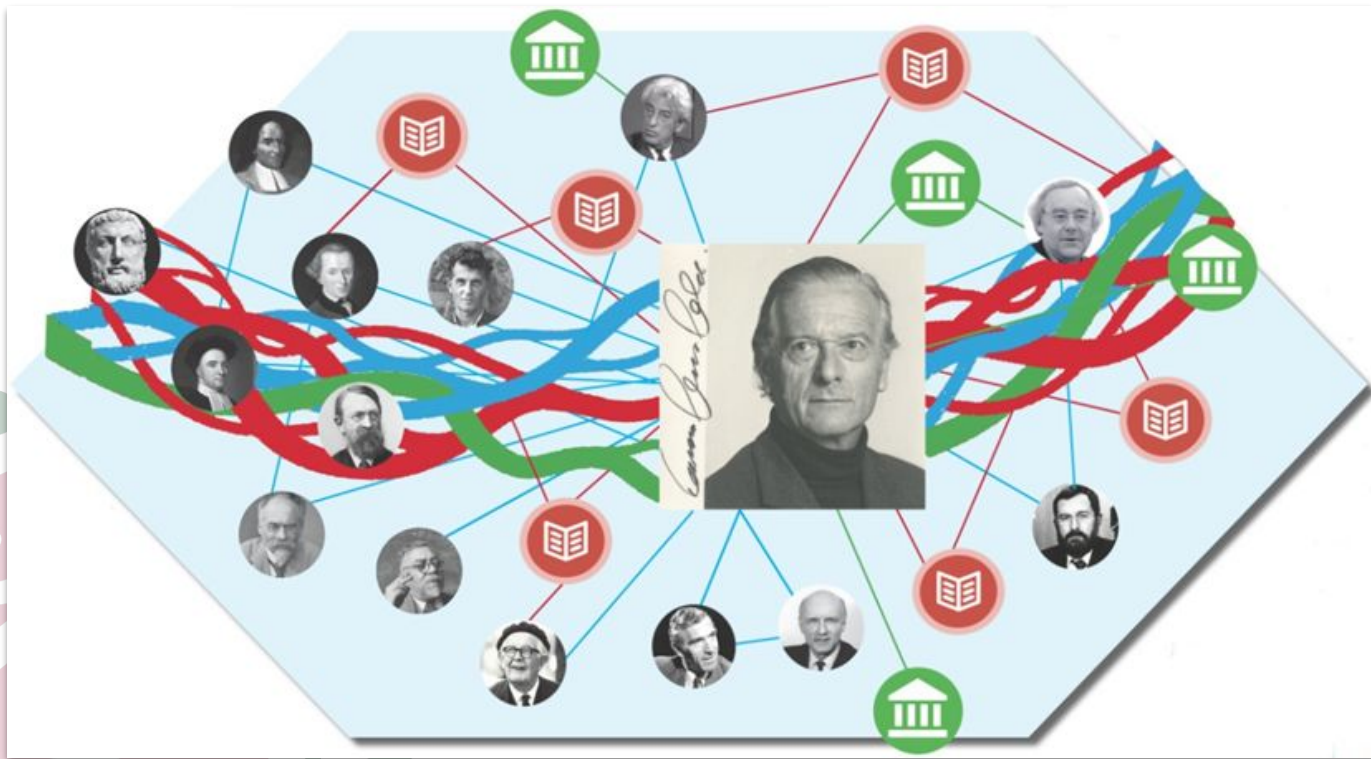


10 REDUCED
INEQUALITIES



Entry Point to Archive

- Classic search mechanics
- Design principles of “Generous Interfaces”^{*}:
 - Show first, don’t ask
 - Provide rich overviews
 - Provide Context
 - Show high quality primary content



Connections between argumentations, topics, and persons.



WIKIMANIA
STOCKHOLM

Create a walk

Name of walk	Save walk	Annotations	Search / Filter		
Drop annotations here!		<p>No act of mental re-presentation, which in this context of conceptual analysis means neither less nor more than the regeneration of a prior experien...</p> <p>This function, incidentally, constitutes one of the central elements of our theory of children's acquisition of the concept of number (Steffe et a...</p> <p>Few, if any, thinkers in this century have used the notion of abstraction as often and insistently as did Piaget. Indeed, in his view "All new knowled...</p> <p>One of the remarkable features of the Behaviorist era in American psychology is that so many leaders and followers of that creed could claim to be...</p> <p>The second reason against an infinite regress of abstractions is grounded in the developmental</p>	<p>If this is accepted as a working hypothesis, we have a model for a mathematical activity that was very well characterized by Juan Caramuel[14], twenty-five yea...</p> <p>Berkeley, of course, was aware of the fact that he would apply the name "apple" not only to one unique "thing", but to countless others that fitted his descripti...</p> <p>Anyone who has entered into the spirit of Genetic Epistemology will realize that the simplicity of these statements is deceptive. The expressions "observables" an...</p> <p>Except for their initial fixedness, these action patterns function like the schemes which the child a little later begins to coordinate on the basis of experience. Schem...</p> <p>To clarify the core of the notion, I once more return to Locke, because he produced a very</p>	<p>Piaget's use of the distinction is complicated by the fact that he links it with his use of "observables" (content) and "coordinations" (forms). "Th...</p> <p>The understanding, like the eye, whilst it makes us see and perceive all other things, takes no notice of itself; and it requires art and pains to set it at a distanc...</p> <p>Because there are always vastly more sensory elements than the perceiving agent can attend to and use,[8]</p> <p>If someone, having just eaten an apple, takes a bite out of a second one, and is asked which of the two tasted sweeter, we should not be surprised that the person co...</p> <p>Piaget has always maintained that all forms of imaging and representing are, in fact, acts of</p>	<p>Search.. Suche</p> <ul style="list-style-type: none"><input checked="" type="checkbox"/> Alle<input checked="" type="checkbox"/> Argumentationen<input checked="" type="checkbox"/> Anpassung<input checked="" type="checkbox"/> Bedeutung<input checked="" type="checkbox"/> Erfahrung<input checked="" type="checkbox"/> Evolution<input checked="" type="checkbox"/> Lernen<input checked="" type="checkbox"/> Raum und Zeit<input checked="" type="checkbox"/> Realität<input checked="" type="checkbox"/> Sprache<input checked="" type="checkbox"/> Viabilität<input checked="" type="checkbox"/> Vorstellung<input checked="" type="checkbox"/> Wahrnehmung<input checked="" type="checkbox"/> Innovationsdiskurs<input checked="" type="checkbox"/> Akzeptieren neuer Erkenntnisse<input checked="" type="checkbox"/> Bruch mit der klassischen Erkenntnistheorie<input checked="" type="checkbox"/> Eigene Lücken aufzeigen<input checked="" type="checkbox"/> Infragestellen<input checked="" type="checkbox"/> Infragestellen der traditionellen Erkenntnistheorie<input checked="" type="checkbox"/> Irreführungen aufzeigen

Create pathways from selected text fragments.



WIKIMANIA
STOCKHOLM

Custom MediaWiki Extension

- Specialpages
 - Processing pipeline
 - Visualizations
- Corpus-linguistic text analysis via python programs (on the server)
- Custom API-endpoints, parser functions, and templates

- Nearly half-time, runs till end of September 2020
- Implementation and evaluation
- Developing visualizations with a designer
- Follow-up projects with cooperation-partners

Current State of the Project

THANK YOU!



**WIKIMANIA
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