

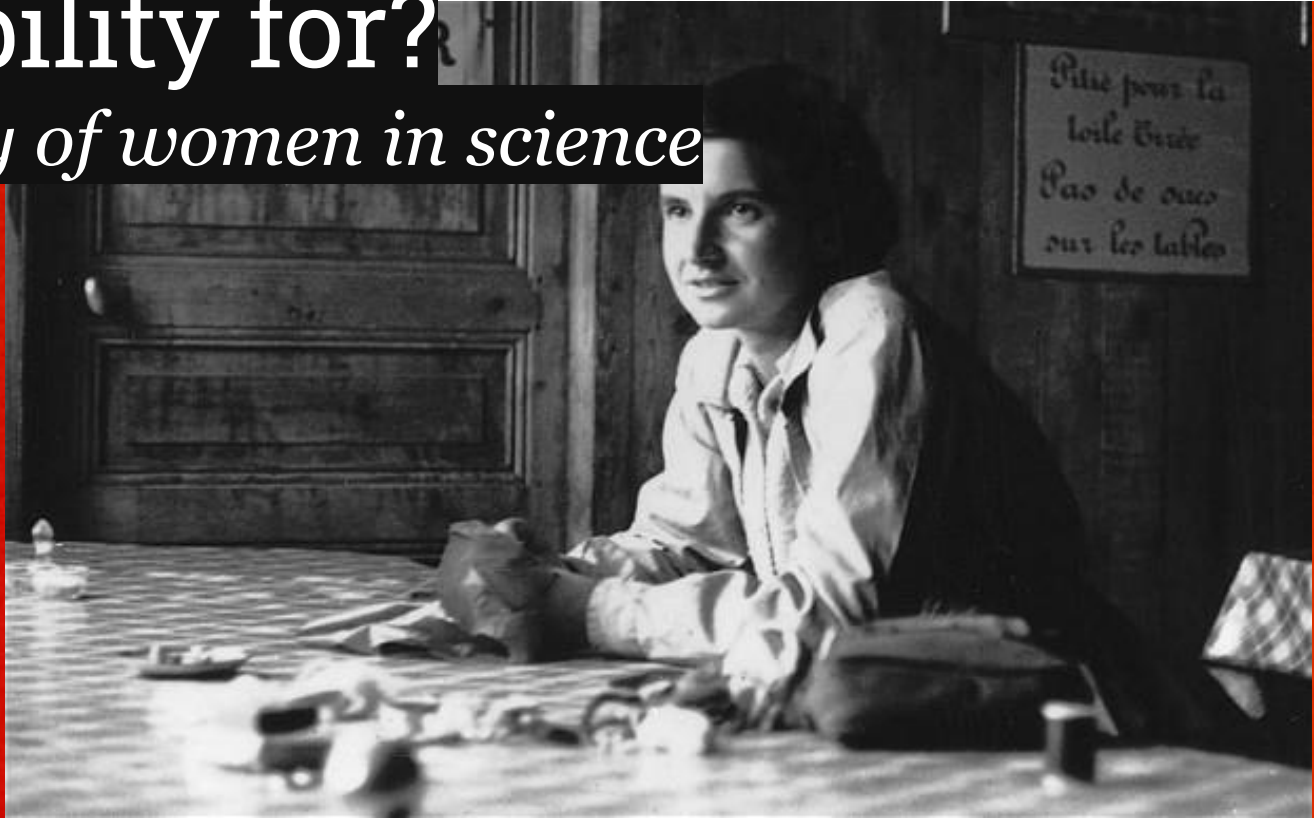
# Visibility of Women in Science, for an Anti-oppressive World

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# Visibility for?

## *History of women in science*



## Overview

- History of Women in Science and Epistemic Injustice
- Anti-oppressive Education
- Critical and Transgressive NOS Approach
- The Silva-Sepúlveda approach

# **1.** History of Women in Science and Epistemic Injustice



5

Key Concepts



6

Key Concepts

7



Margaret Rossiter

# Women in Science

**Hierarchical Segregation**

**Territorial Segregation**

**The Matilda Effect**



Epistemic  
Injustice  
(Fricker, 2007)

Testimonial  
Injustice

Women

Hermeneutical  
Injustice



Unfortunately, *Maurice could not see any decent way to give Rosy the boot*. To start with, she had been given to think that she had a position for several years. Also, there was no denying she had a good brain. *If she could only keep her emotions under control, there would be a good chance that she could really help him.*

*(James Watson, 1976, p. 29)*



*I think for every woman physicist [...] it's very hard to say, "Yes, I'm really better than." Sometimes it's really impossible to say, "I'm considerably better than the person who got this job.", **you're doubtful about all the factors involved**, and it's not only I who face this problem it's also faced by other women physicists [I] know, but you're right. **I've never felt intellectual discrimination, I've felt some economic discrimination***

*(Melba Phillips, AIP Interview, 1977)*



*One hermeneutical rebellion  
inspires another.*

*(Fricker, 2007, p. 167)*



How could the history of women  
in science and epistemic  
injustice contribute then to an  
anti-oppressive world?

# Critical Education

Women in Science and  
Epistemic Injustice

Freirean Pedagogy

Critical and  
Transgressive NOS  
Approach

## 2. Freirean Pedagogy

*Towards an anti-oppressive education*



*to perceive social, political  
and economical  
contradictions, and to take  
action against the oppressive  
elements of reality*

*(Freire, 1995, p. 17)*



# Critical Pedagogy

## Students:

- Action and change
- Resisting and challenging oppression

# Critical Pedagogy

- Liberating education aims to prepare individuals for democracy

## Students:

- Subjects of their own history
- Involve in political and cultural struggles in search of their emancipation
- Critical awareness of the world, together with the teacher, through dialogue

# Critical Pedagogy

## Educators:

- Teach about the dynamics of oppression
- Dialogical action
- Change society

**Women in Science**

*together with*

**Epistemic Injustice**

*to create*

**Limit-situations**

*“revealing [individuals] their true nature as concrete historical dimensions of a given reality”*

### **3.** The Silva-Sepúlveda approach

*Education is political; teaching is a transgressive act.*

## Nature of Science (NOS)

### NOS approach:

- What science is
- How scientific knowledges are developed
- Science interacts with society, culture, and human complexity

(Hansson and Yacoubian, 2020)

Critical NOS  
+ Women in  
Science +  
Epistemic  
Injustice

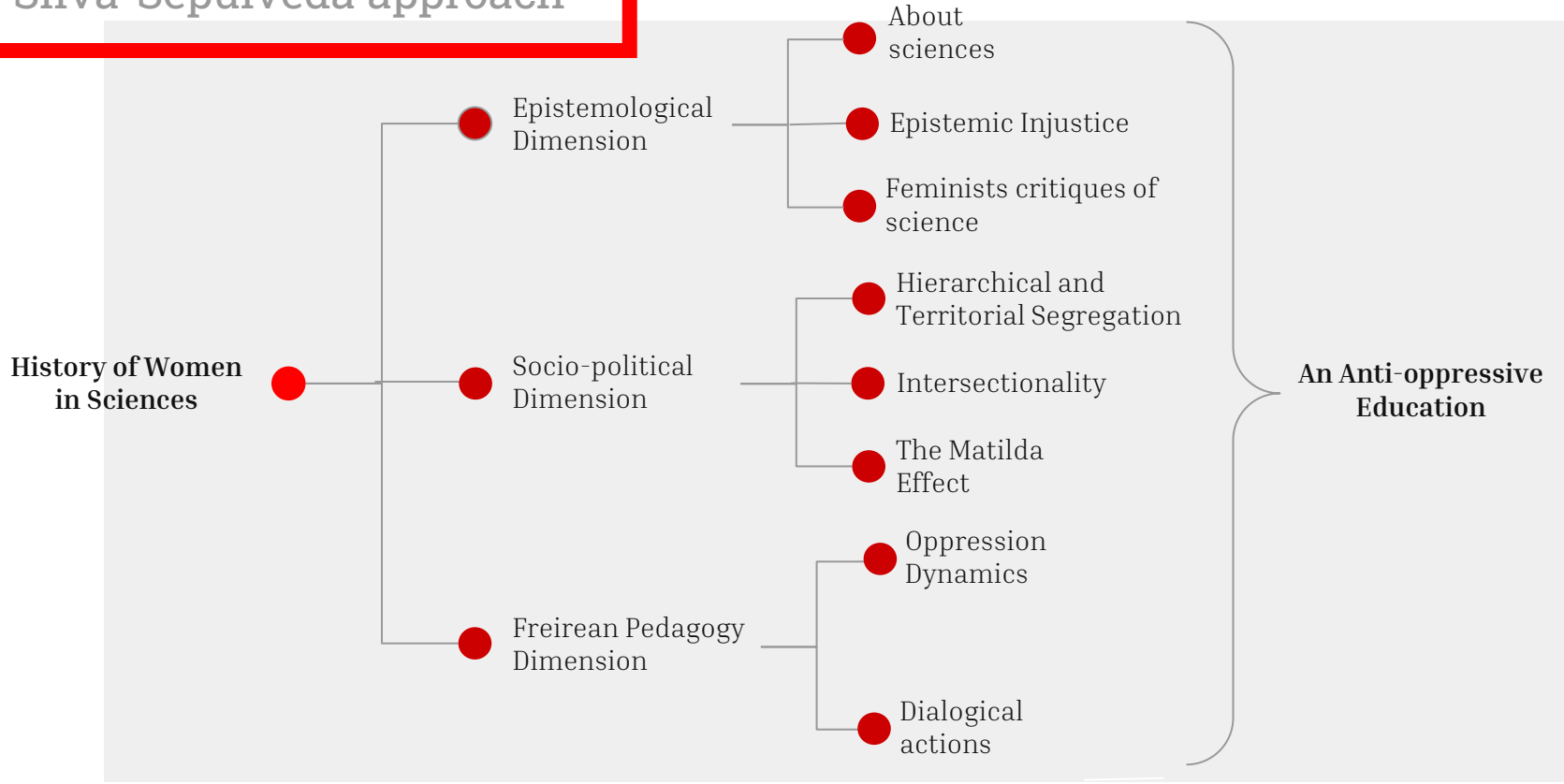
Scientists:

the processes of oppression, the maintenance/rupture of exploitation, violence against human groups,

the structural identity prejudice, and credibility deficit

marginalization based on gender, race, sexuality, class and so on

# The Silva-Sepúlveda approach





But how?

Define a historical episode:

- Woman, field and/or concepts, models
- Power relations
- Intersectionality

Define a critical NOS approach:

- Socio-political questions

## 4. Not an end, but a beginning...

*How could our histories of women in science be written to promote social justice?*



*The classroom remains the most radical space of possibility in the academy.*

*(bell hooks, 1994, p. 12)*

Thank you!

*I'll be glad to hear from you: [isilva@uefs.br](mailto:isilva@uefs.br)*