

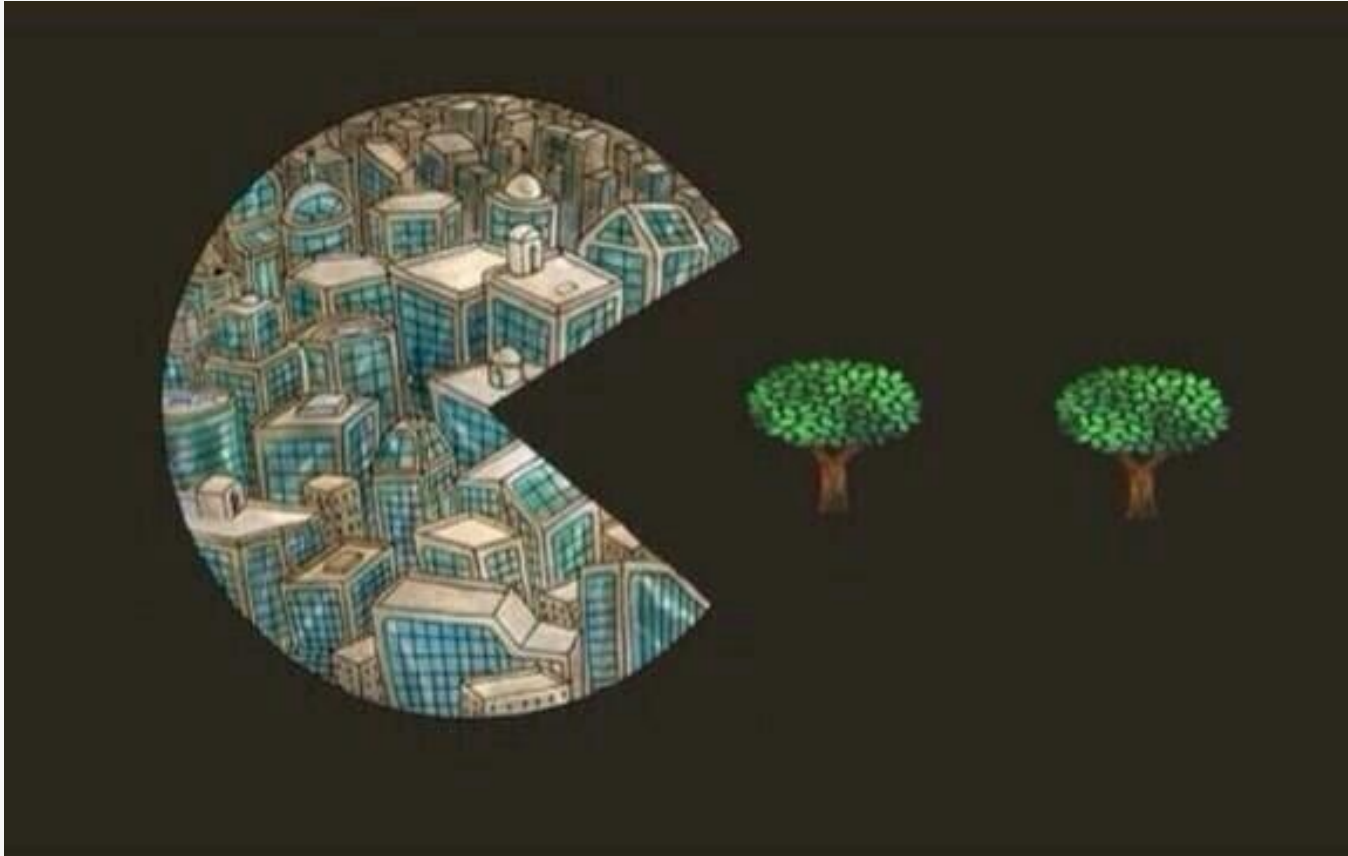


# **Anthropocene Crisis: Urban Bees to Bridge the Human/Nature Divide**

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# Human/Nature Dualism



Human > Nature



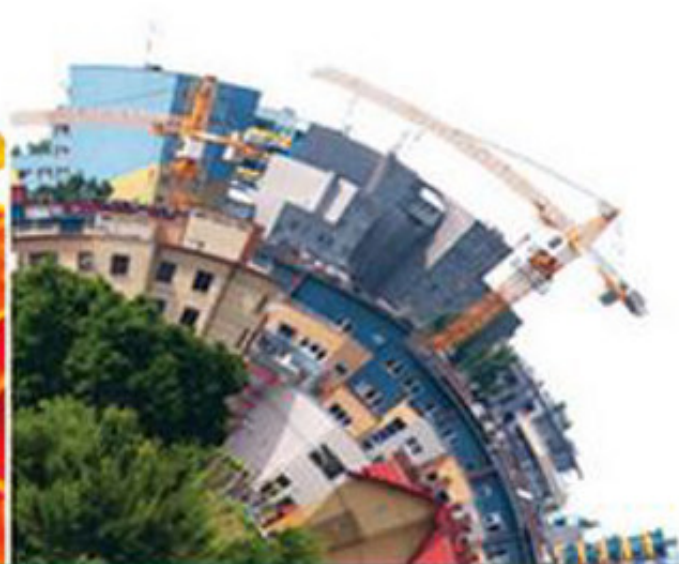
# Nature



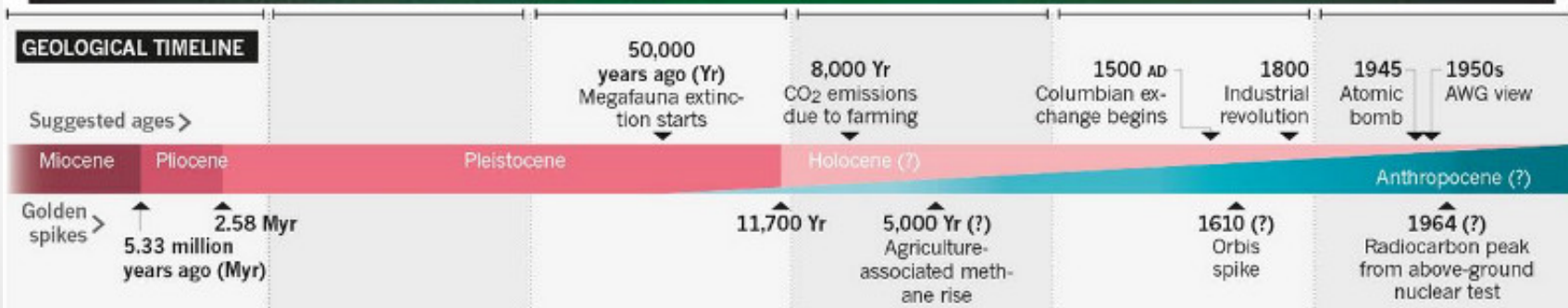
# Not Nature?







# THE ANTHROPOCENE





“The unit of survival is not the individual or the species, but is the organism-and-its-environment. It follows from this that an organism that deteriorates its environment commits suicide” (Rose & Robin, 2004, n.p.).



## A Healthy Diet

**1/3**

of global food production  
volume relies on  
pollinators  
to some degree

Source: Klein, 2007



**80%**

of flowering plants are  
pollinated by honeybees  
and other insects

Source: Calderone, 2012



Almonds



Apples



Broccoli



Strawberries



Alfalfa \*

\*Significant to beef  
and dairy industries  
as cattle feed

## U.S. Agriculture

**\$18** Billion  
Per year

The amount of dollars of U.S. agricultural  
production supported by honeybee  
pollination

Source: USDA

## Canadian Agriculture

**\$1.5** Billion

The annual value of honey bee pollination in  
Canada.

Source: Agriculture and AgriFood Canada

	Anthropocentric	Non-anthropocentric
Instrumental	<i>Total Economic Value: personal use and non-use (inc. existence value related to others' use)</i>	<i>The values of other animals, species, ecosystems etc. (independent of humans)</i>
Intrinsic	<i>"Stewardship" value (unrelated to any human use)</i>	<i>Value an entity possesses independently of any valuer</i>

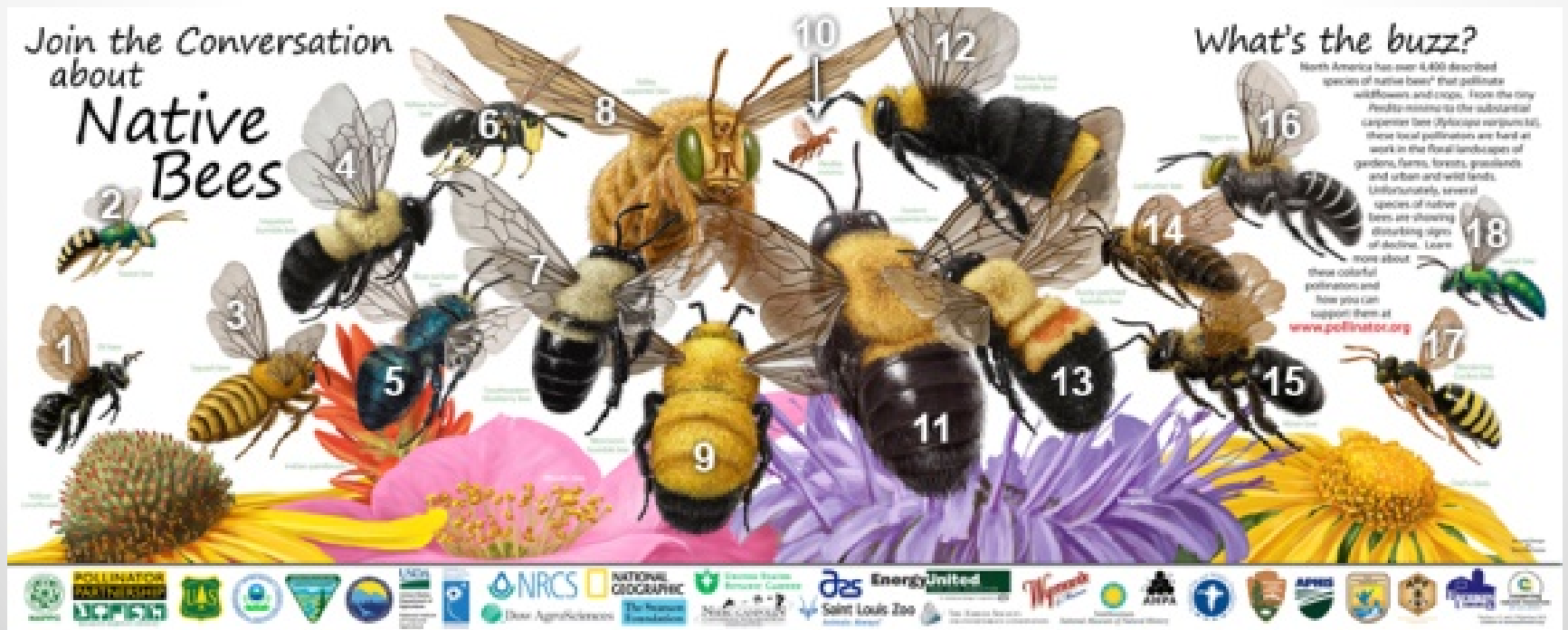
Source: adapted from Turner et al. 2005.

# Bees of the World

800+ native bees in Canada

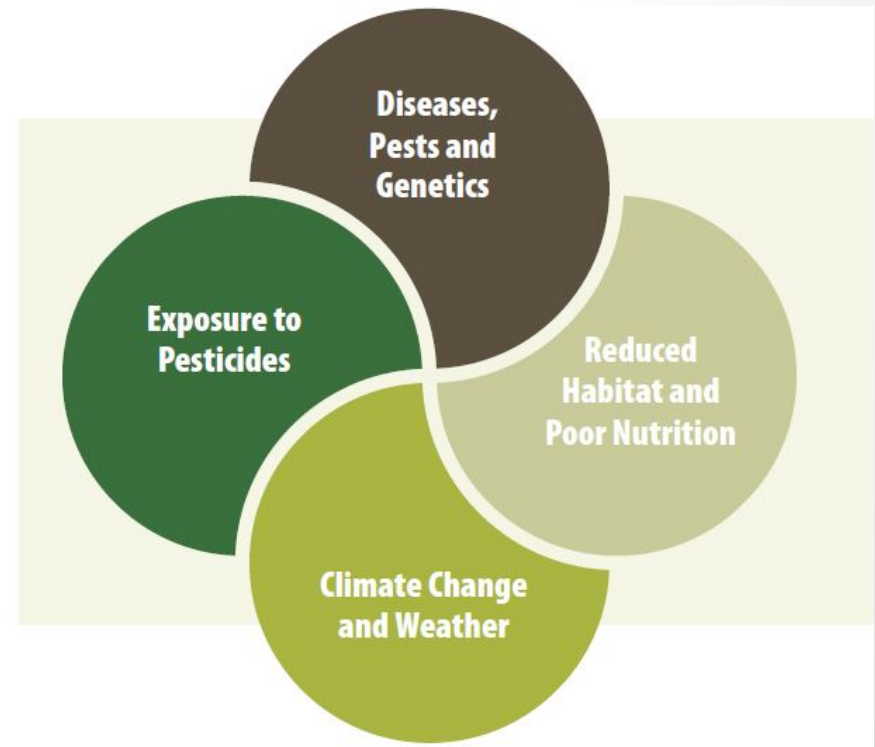
20,000 species globally

7 kinds of honeybee (1 in Canada)



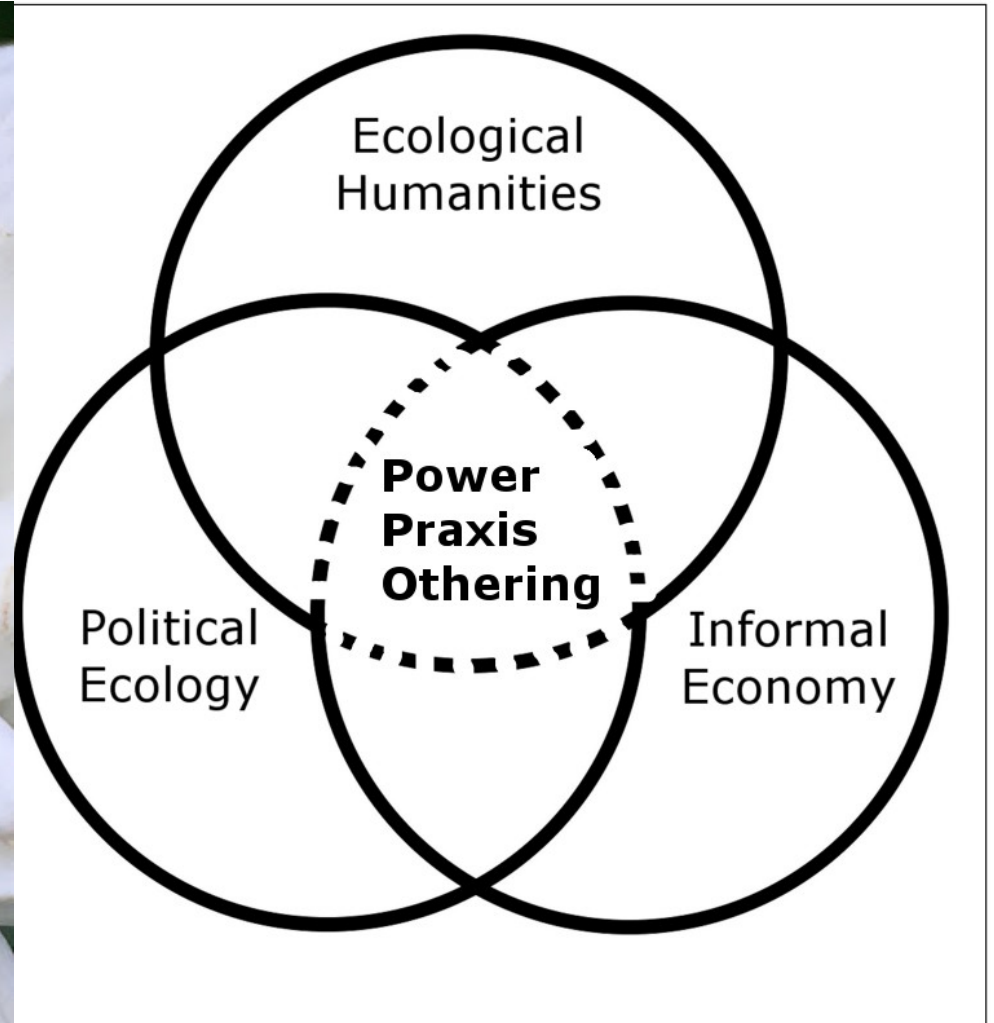
# Bees & People

- “How can we possibly value, in monetary terms, the loss of a species” forever ?  
(Atkins & Atkins, 2016, pg. 4)

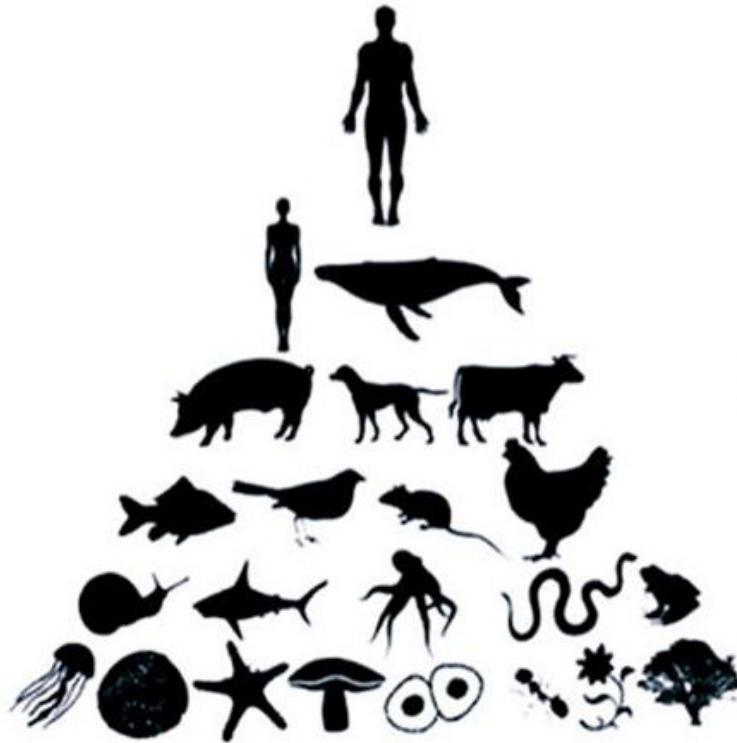




# Theoretical Framework



# Ego-Logical



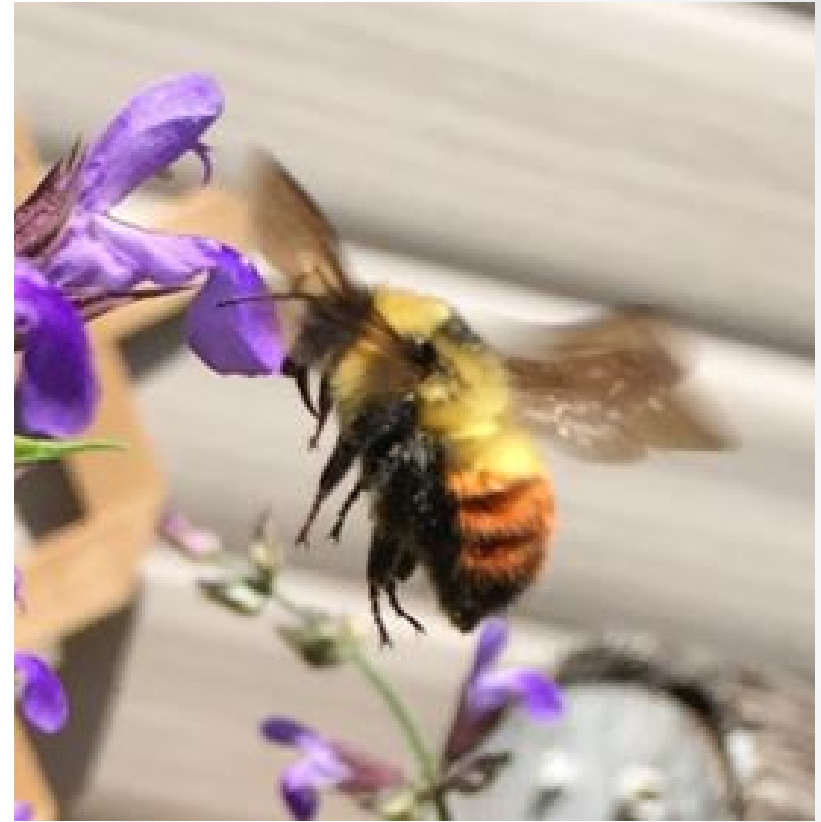
Authoritarian ~ Dualistic ~ Unsustainable  
Delusional ~ Mechanistic ~ Self-destructive  
Unwise ~ Imbalanced ~ Power Seeking

Christopher Chase, 2014

# Power

- Largely hierarchical
- Controlling or dominating a subservient nature
- Conspicuous lack of reciprocity

- Honey bees are not an endangered species
- In Canada, we have 7 species of native bees that are endangered or of concern:
  - Gypsy Cuckoo Bumble Bee
  - Macropis Cuckoo Bee
  - Rusty-patched Bumble Bee
  - Sable Island Sweat Bee
  - Western Bumble Bee mckayi subspecies
  - Western Bumble Bee occidentalis subspecies
  - Yellow-banded Bumble Bee



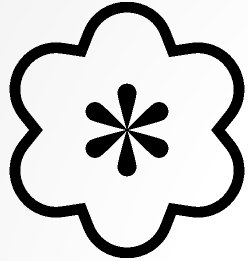
**Red Belted Bumble Bee**  
(*Bombus rufocinctus*)



# Othering



# Informal Economy



- Contributions include:
  - Aesthetic and cultural value
  - Education in outdoor classrooms / schoolyard gardens
  - Therapeutic benefits
  - Health and well-being

# Praxis

- Sweat bee: climbed onto my thumb while teaching a class about the campus as a pollinator habitat!

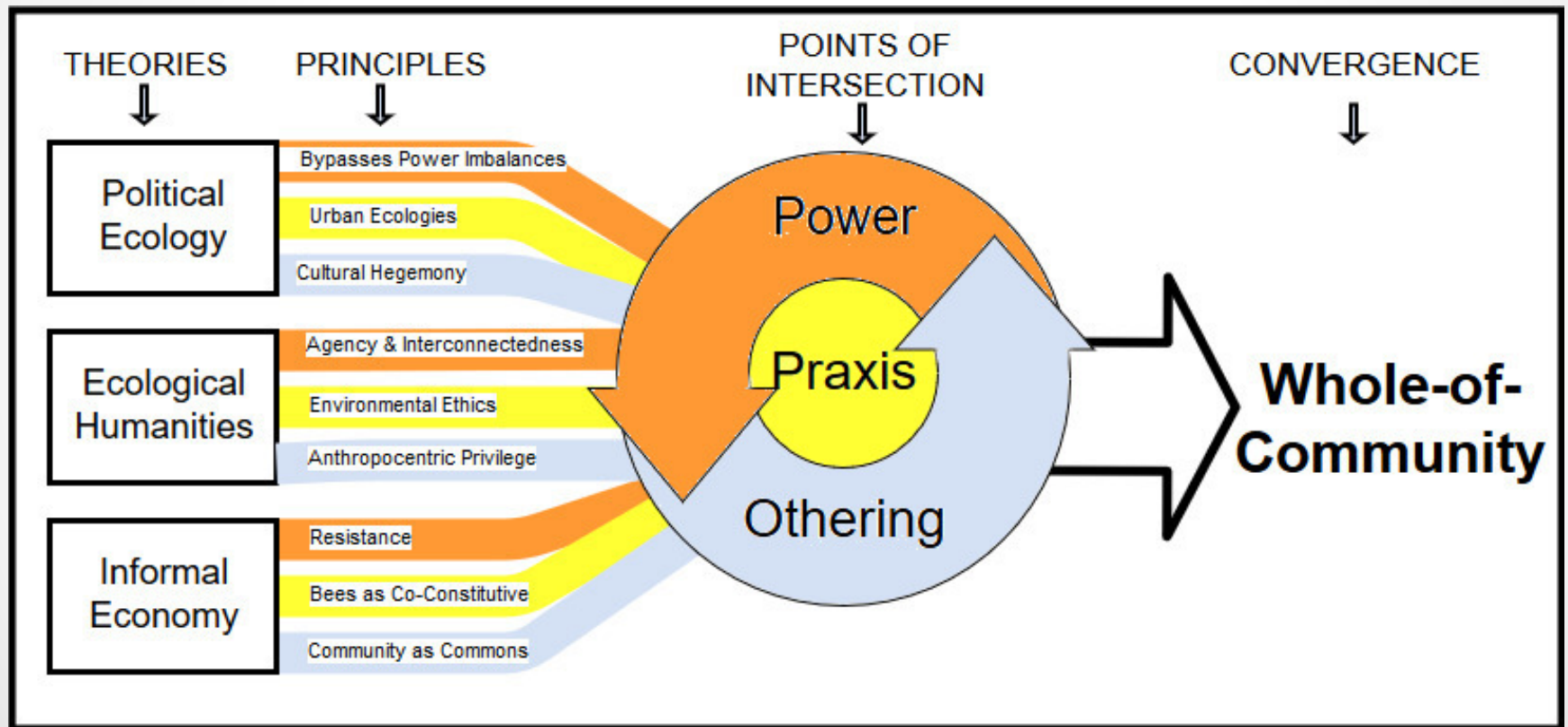




# Squash Bee



# Conceptual Model



THANK YOU!

