# Story of Rats: An Examination of Co-Evolutionary Possibilities Between Rats and Humans

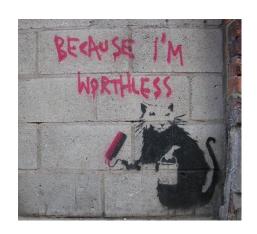
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# Why?

- complex relationship
- personal experience



Banksy



- Definitions
- 2 Topics
- Conclusions

- Definitions
  - Rat and Human
  - Co-Evolution
  - Adaptation
- 2 Topics
- 3 Conclusions

# Definitions: Rat and Human







Wikipedia

#### **Definitions: Co-Evolution**

#### Interactions

- Competition
- Mutualism
- "Enemy/Victim" Interactions

#### **Processes**

- Patterns of Correlated Evolution (Phylogenetic Congruence)
- Reciprocal Adaptive Responses
  - Specific Co-Evolution
  - ② Diffuse Co-Evolution
- Co-Speciation
- Escape-and-Radiate Co-Evolution



# **Definitions: Adaptation**

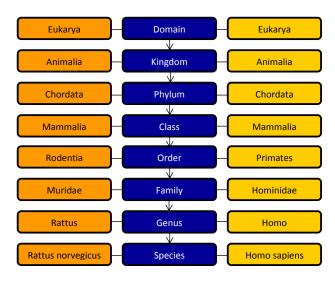
Trait that confers enhanced reproductive success to an individual...

- in the present,
- ont only in the present, but also in the past, and as a result is the product of natural selection, or
- in the past, but which may or may not in the present, and may actually be maladaptive in the present.

- Definitions
- 2 Topics
  - Taxonomy
  - History
  - Current Cultural Identities of the Rat
  - Case Study
- 3 Conclusions



# **Topics: Taxonomy**



**Topics** 

# **Topics: History**

#### Religion

- India
- France
- Israel

#### Literature

- Greece
- England
- United States



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# Topics: Current Cultural Identities of the Rat

- Vermin
- 2 Laboratory Animal
- Pet







Wikipedia



# Topics: Case Study



APOPO







Wikipedia

- Definitions
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## Conclusions

Rats are highly adaptable...

- resources
- distribution

Humans are highly adaptable...

- culture
- technology

Some of these adaptations may or may not have happened in direct response to one another.

### Thanks!

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# Questions?