

Erasmus+ MidWay

*The Good, the Bad and the Animal
- on the biological basis of morality*

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What does it mean to be moral, to be good?



World Cloud –
short answer, 1-2 words

ERASMUS 2024 ANSWERS 😊

"Freedom"

"God is good, when I know God I become good"

"To think in others through our actions. Not to harm others..."

"Empathy and Love"

"it's like Kant said: Man can do everything while he do not annoying me."

"To be moral or to be good generally means to adhere to principles or standards of right conduct, often involving actions and behaviors that are considered beneficial, just, and virtuous by a society"

"Less expectation "

"Kind and thoughtful"

"Sincere"

"To act in order with reason and soul"

"Peace "

"To be honest"

"Having a strong mentality"

"Love myself and people around me!"

"Be friendly"

"Sustainability "

"Not want to harm anyone with your actions and willing to help others."

"True/reall"

"To do things that are good for the group"

"for me, being good means having people around all the time "

"Not want to harm anyone with your actions and willing to help others."

"Behave in accordance with personal and societal values."
"

"being nice"

"To be onest"

What does it mean to be moral, to be good?

generally means principles or standards reason and soul
actions and behaviors
True/reall
right conduct Love **good** actions
willing
Man God is good people good means Kind and thoughtful
good for the group things that are good
virtuous by a society strong mentality people around all the time

Synonyms of 'moral' in American English

good decent
ethical high-minded
honorable **just**
noble principled
right virtuous

culture, upbringing, rules, religion –
social construct

MORALITY

biology, evolution, genes,
adaptations

I. *The Good, The Bad* - Moral values
in humans are based in cooperation
- quizz – game - summary table

II. ...*and the Animal* - Do non-human
animals have morals?
- movies - summary table

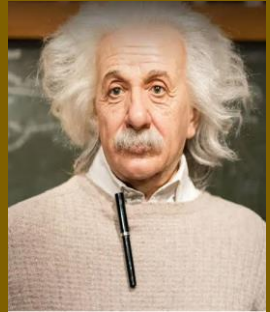
Focus on cooperation



Aristotle (384 bc): Justice is *'what is for the benefit of the **whole community**'* or *'to the common advantage'*



Thomas Aquinas (XIII): *If then a group of free men is directed by a rule to the common **good of the group**, his government will be right and just.*



Albert Einstein (XX): *Only a life lived **for others** is a life worthwhile.*



Dalai Lama (XXI): *Our prime purpose in this life is to **help others**. And if you can't help them, at least don't hurt them. Be kind whenever possible. It is always possible.*

**MORAL
DILEMMA
AHEAD**

GOOD

BAD

WHY?

YES
YES

DEPENDS.

NEUTRAL.



You accidentally damage a car in a parking lot.

Do you leave note

Do you name with your name and phone number?

Yes

No.

No

Depends?

- Get rid off all orange cards

A Question of Scruples is a [card game](#) based on [ethical dilemmas](#). The game was invented by Henry Makow in 1984 and developed by High Game Enterprises.^[1]

- Players are given **three orange cards**, each with a moral dilemma such as, "*You accidentally damage a car in a parking lot. Do you leave a note with your name and phone number?*"
- Each player also has a **single green card**, with either "YES", "NO", or "DEPENDS" printed upon it.
- The player must ask the question on a orange card of the person whom the holder of the orange card believes most likely to reply with the answer on the questioner's green card. The game thus tests how well players know/judge decisions of each other.
- If the answer matches that on the green card, the questioner discards both orange card and green card, then takes another green card. The game is won by the player who first discards all three of his orange cards.

LABEL <small>(WHAT WE VALUE?)</small> 7 MORAL ELEMENTS	BIOLOGICAL MECHANISM	VIRTUE	HUMAN ANIMAL	NON-HUMAN ANIMAL
1. FAMILY				
2. GROUP				
3. RECIPROCITY				
4. HEROISM				
5. DEFERENCE, RESPECT				
6. FAIRNESS				
7. PROPERTY				

How universal are 7 moral elements?

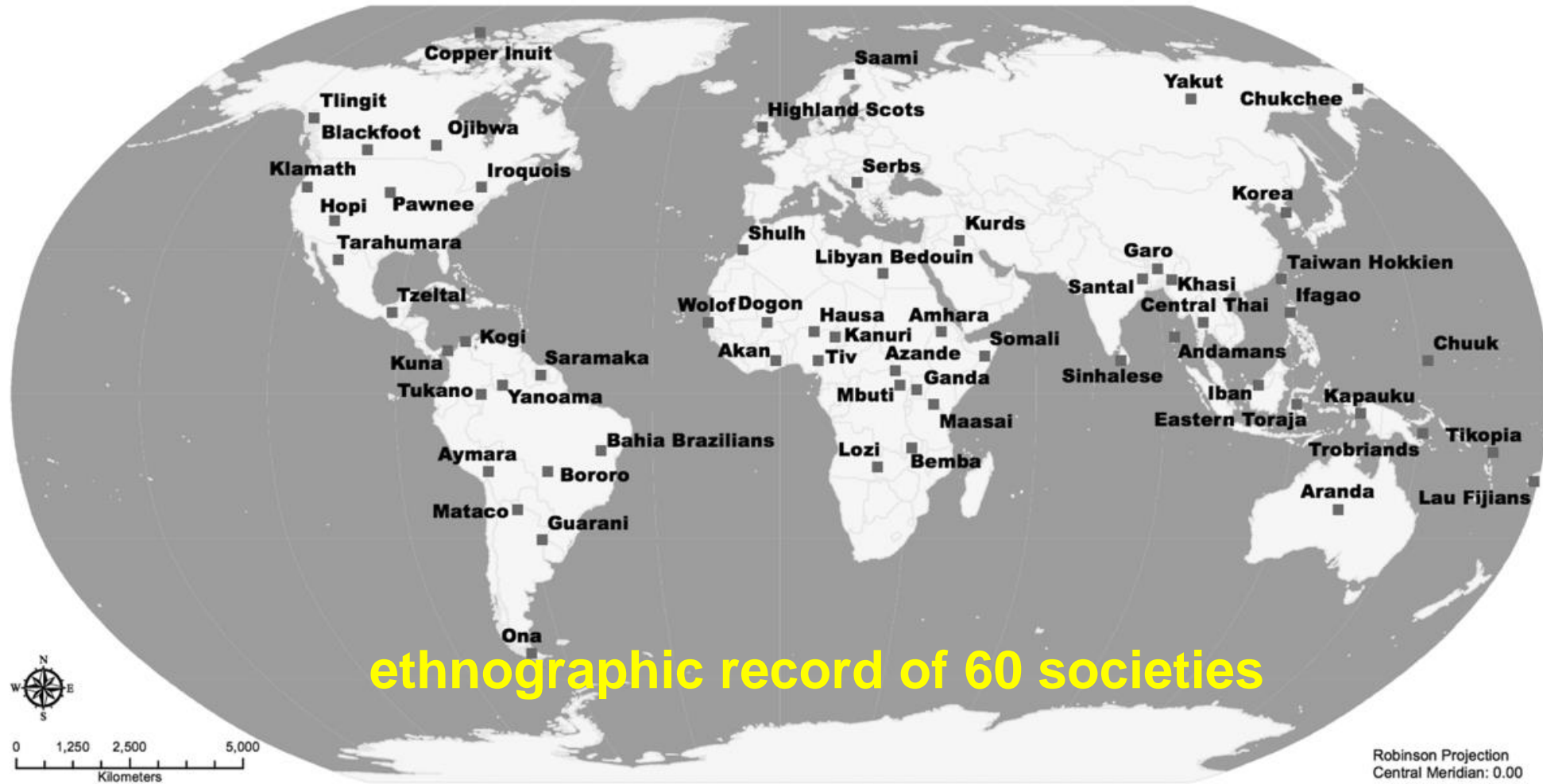


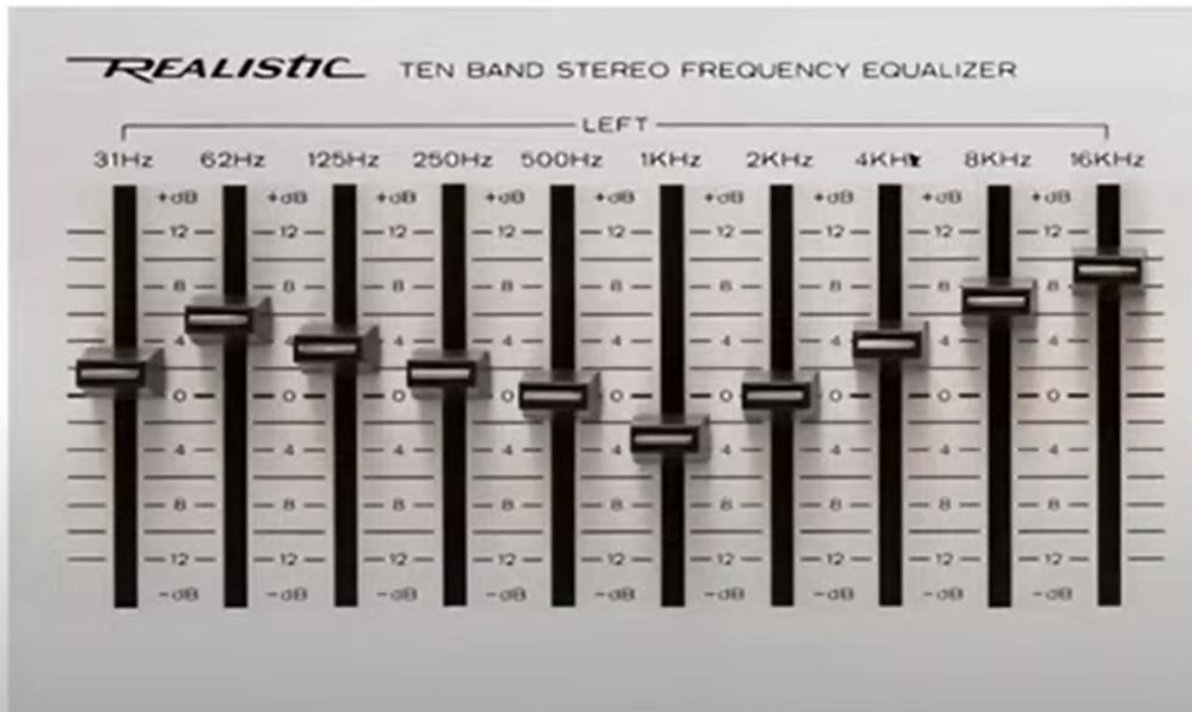
Figure 1. Locations of 60 Probability Sample Files Societies.

proverbs, sayings, aphorisms, family's truths

blood is thicker than water PL = bliźsza ciału koszula (niż sukmana)



Moral values reflect the value of cooperation



27:49 / 1:19:37



Family, Group, Reciprocity, Bravery, Respect, Fairness, Property

99,9% of cooperative behaviour observations had a positive moral value

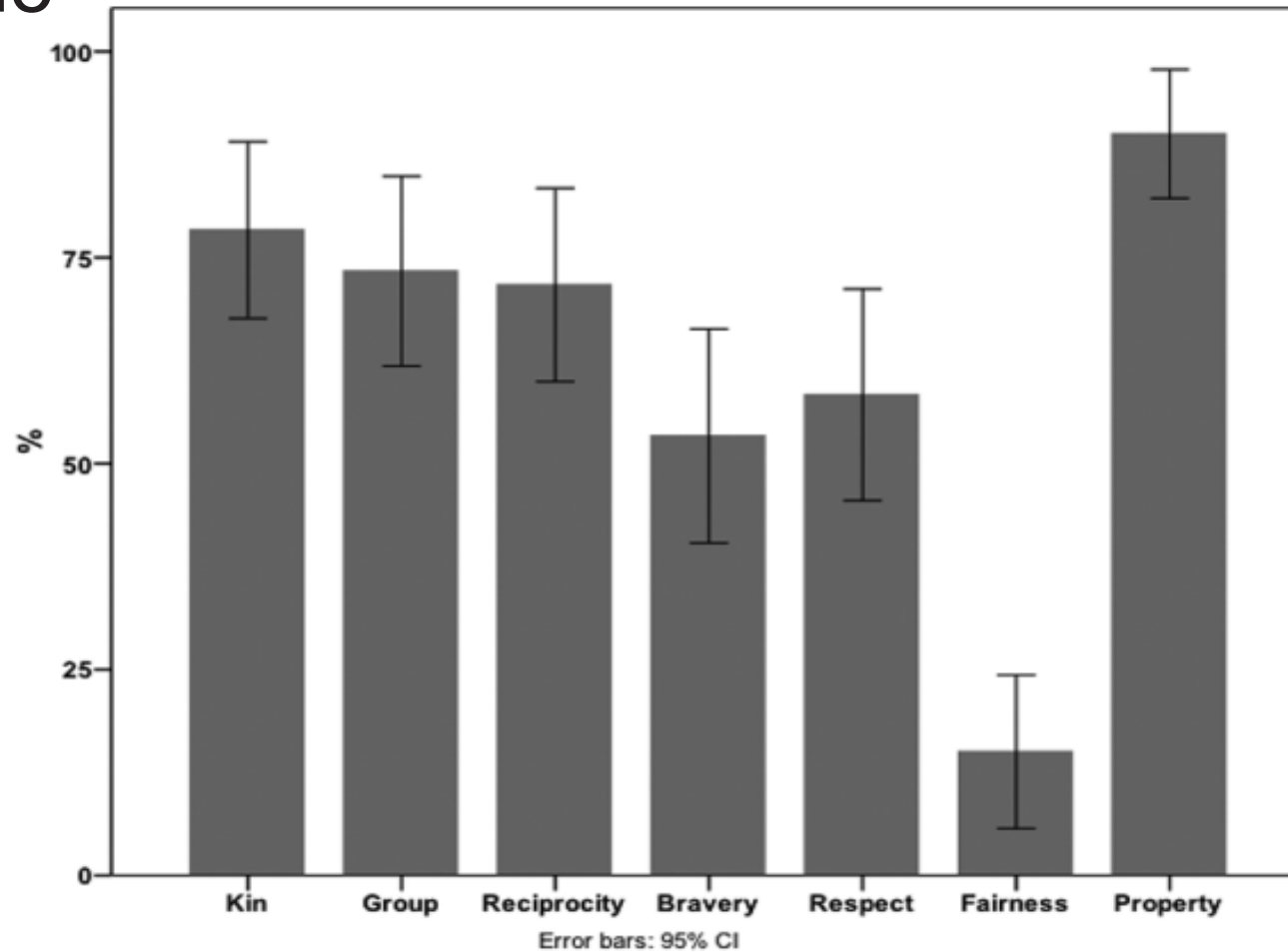


Figure 2. Percentage of societies in which positively morally valenced cooperative behavior was observed.

LABEL <small>(WHAT WE VALUE?)</small> 7 MORAL ELEMENTS	BIOLOGICAL MECHANISM	VIRTUE	HUMAN ANIMAL	NON-HUMAN ANIMAL
1. FAMILY		Helping family members: Loving mother, protective father, responsible older brother		
2. GROUP		Helping group members: Team value, sport clubs, music fans		
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4. HEROISM		Being brave: Strong, tough, heroic (in battle)		
5. DEFERENCE, RESPECT		Being respectful: deferential, obedient to hierarchy, (family, convent, army)		
6. FAIRNESS		Dividing resources, managing conflicts, treating others equally		
7. PROPERTY		Respect for property (ownership, land) not stealing, robbing etc.		

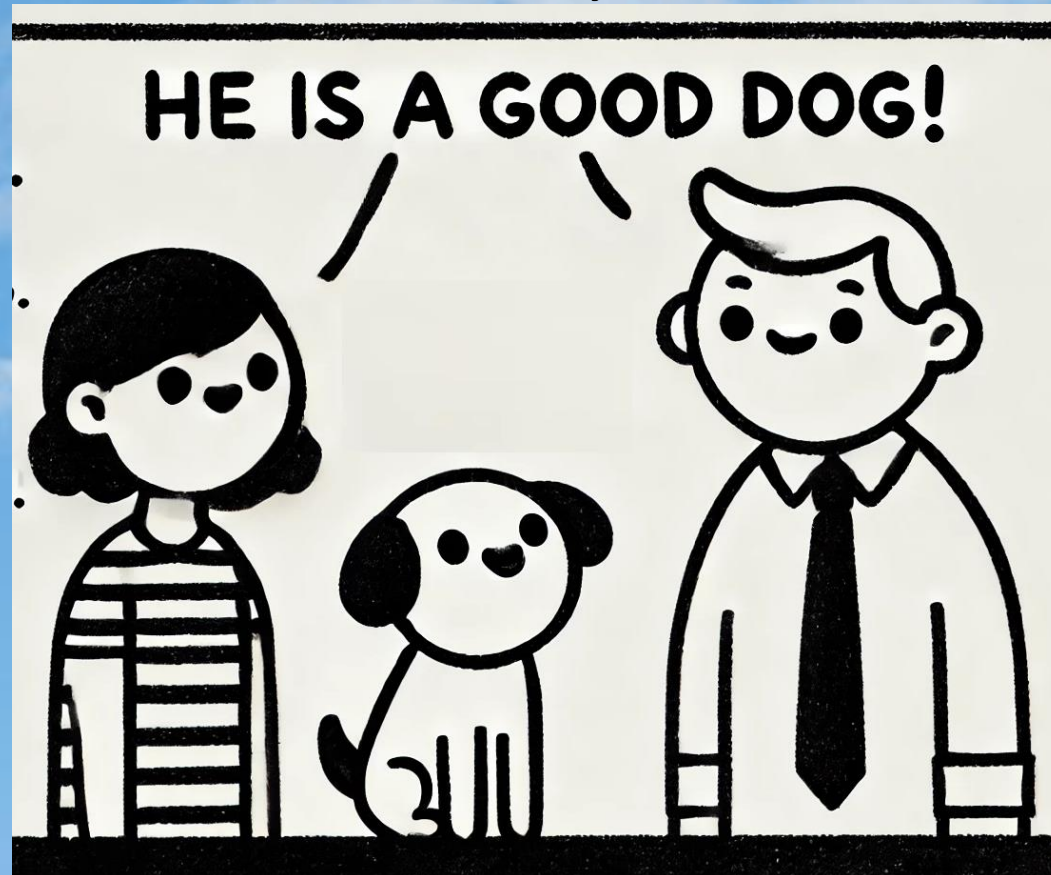
KEY TAKE-AWAYS

- We (Erasmus+ group) and all human societies have beliefs that support **7 moral elements**
(Family, Group, Reciprocity, Bravery, Respect, Fairness and Property)
- There are differences in how societies implement those values and how important they rank relative to each other.
- This is strong evidence that **humans have evolved genetically to believe in morality and cooperation**

We constantly evolve

II. ...*and the Animal* - Do non-human animals behave in moral way?

- movies
- summary table



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3. RECIPROCITY		Engaging in reciprocal cooperations		
4. HEROISM		Being brave		
5. DEFERENCE, RESPECT		Being respectful:		
6. FAIRNESS		Dividing resources		
7. PROPERTY		Respect for property		

7 MORAL ELEMENTS	BIOLOGICAL MECHANISM	VIRTUE	HUMAN ANIMAL	NON-HUMAN ANIMAL
1. FAMILY	KIN SELECTION (Hamilton 1964)	Helping family members:	V	

1. Kin selection - individuals are more likely to help relatives, even at a cost to their own survival or reproduction. This increases the reproductive success of their genetic relatives, thereby enhancing the propagation of shared genes

7 MORAL
ELEMENTS

BIOLOGICAL MECHANISM

VIRTUE

HUMAN
ANIMAL

NON-HUMAN
ANIMAL

2. GROUP

ASSORTSMENTS OF
COOPERATORS (Doebeli 2007)

Helping group
members



2. Grouping of cooperators

even in the absence of genetic relatedness, altruism can evolve through mechanisms that create assortative interactions.

The framework is general and **applies to various biological systems**, including microbial communities, animal groups, and human societies.

Defense circles of the musk oxen (*Ovibos moschatus*)

2 –
0'41



Lion group hunting (*Panthera leo*)



7 MORAL
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3. RECIPROCITY

RECIPROCAL ALTRUISM
(Axelrod, 1984; Trivers, 1971)

Engaging in
reciprocal
cooperations:



3. Reciprocal altruism is and an evolutionary biology concept describing a behavior where an organism acts in a way that is temporarily disadvantageous to itself while benefiting another, with the expectation that the favor will be returned in the future.

- recognise
- chance to meet again

3 –
1'07



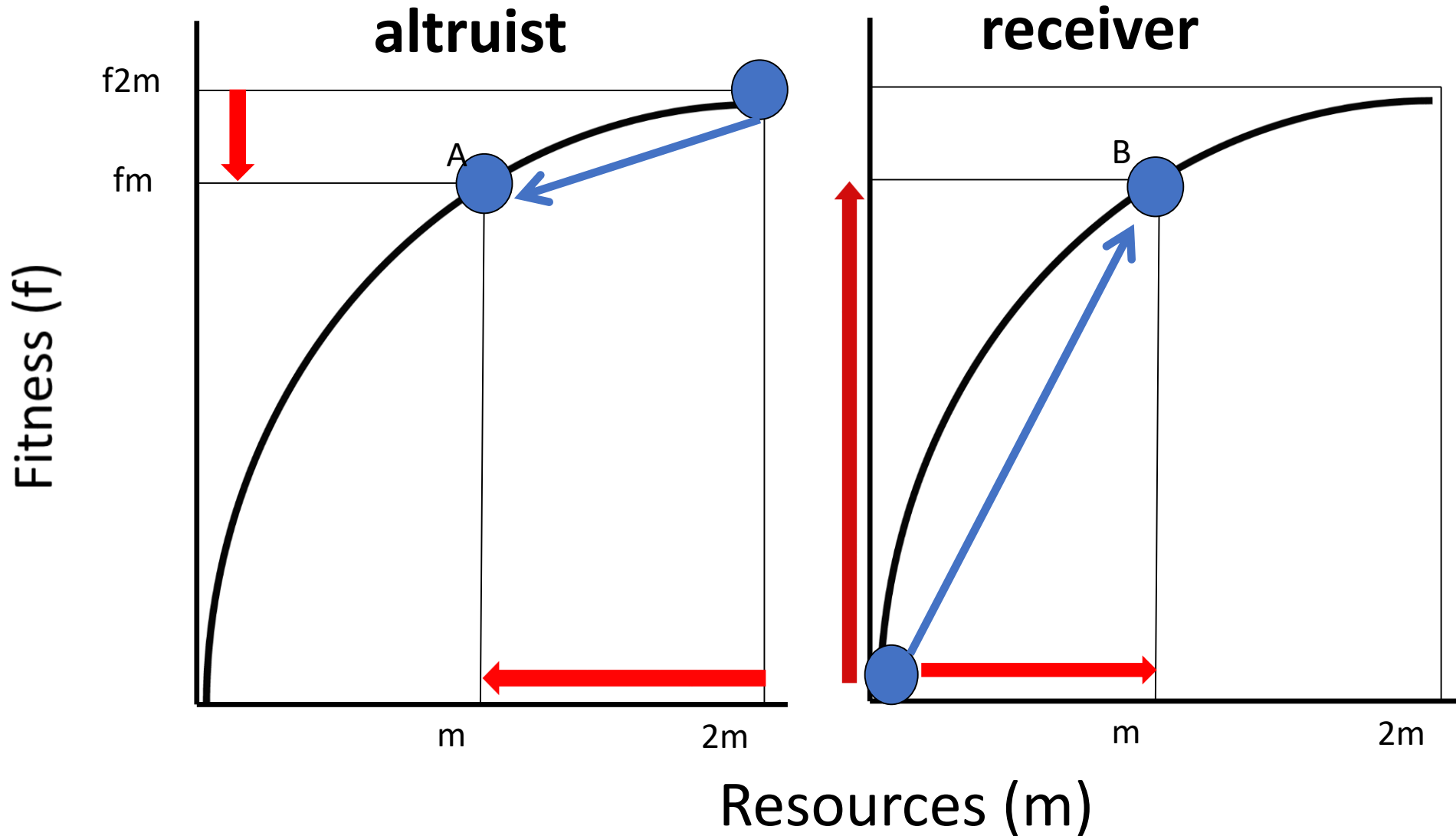
Can the recipient's profits be greater than the costs of the donor's altruistic behavior?

Yes ...No?

Because the same amount of resources can have different adjustment value, depending on the situation of the altruist and the taker.

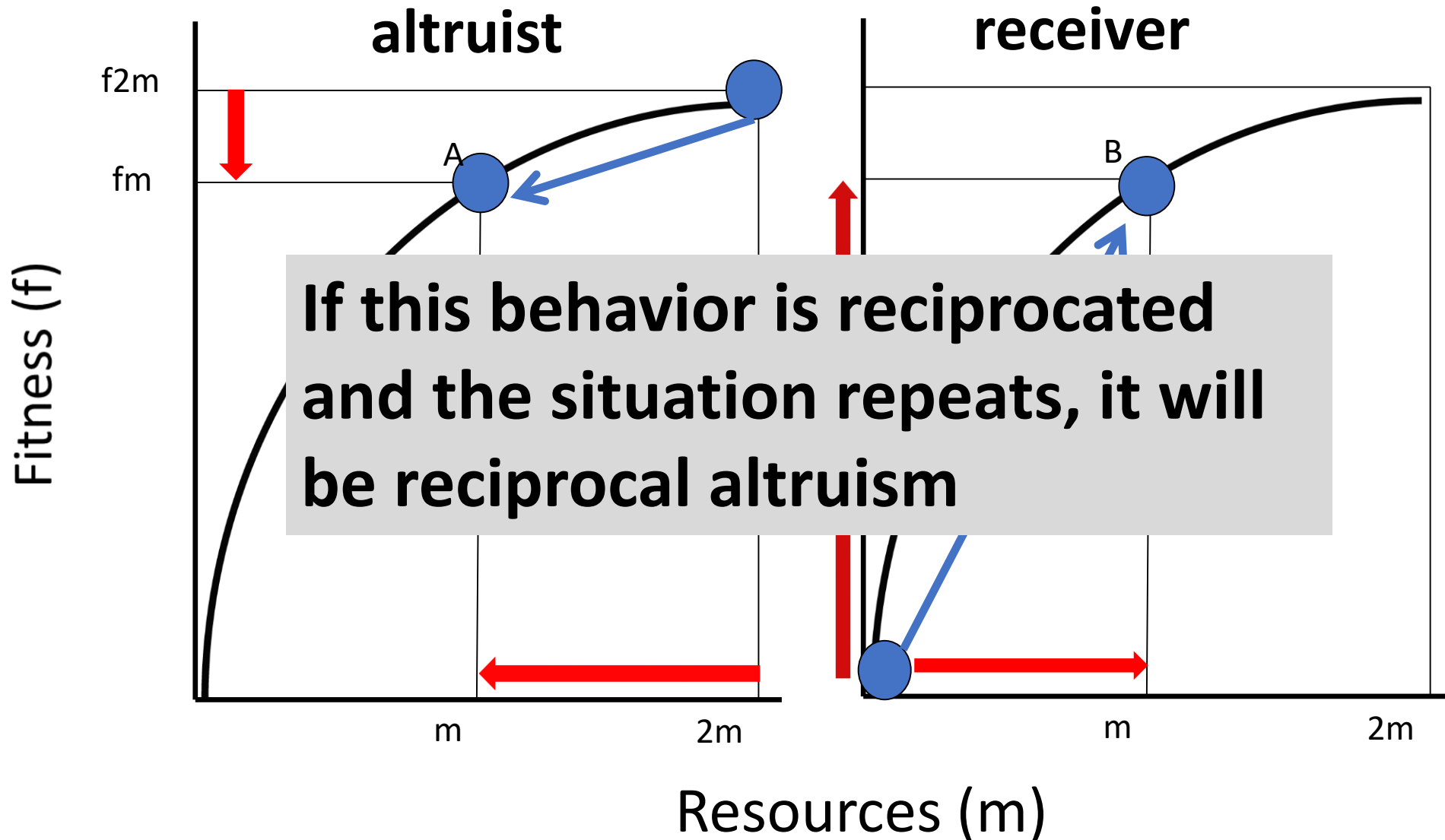
The cost of the altruist less than the profit of the receiver.

Fitness (f) as a function of resources (m)

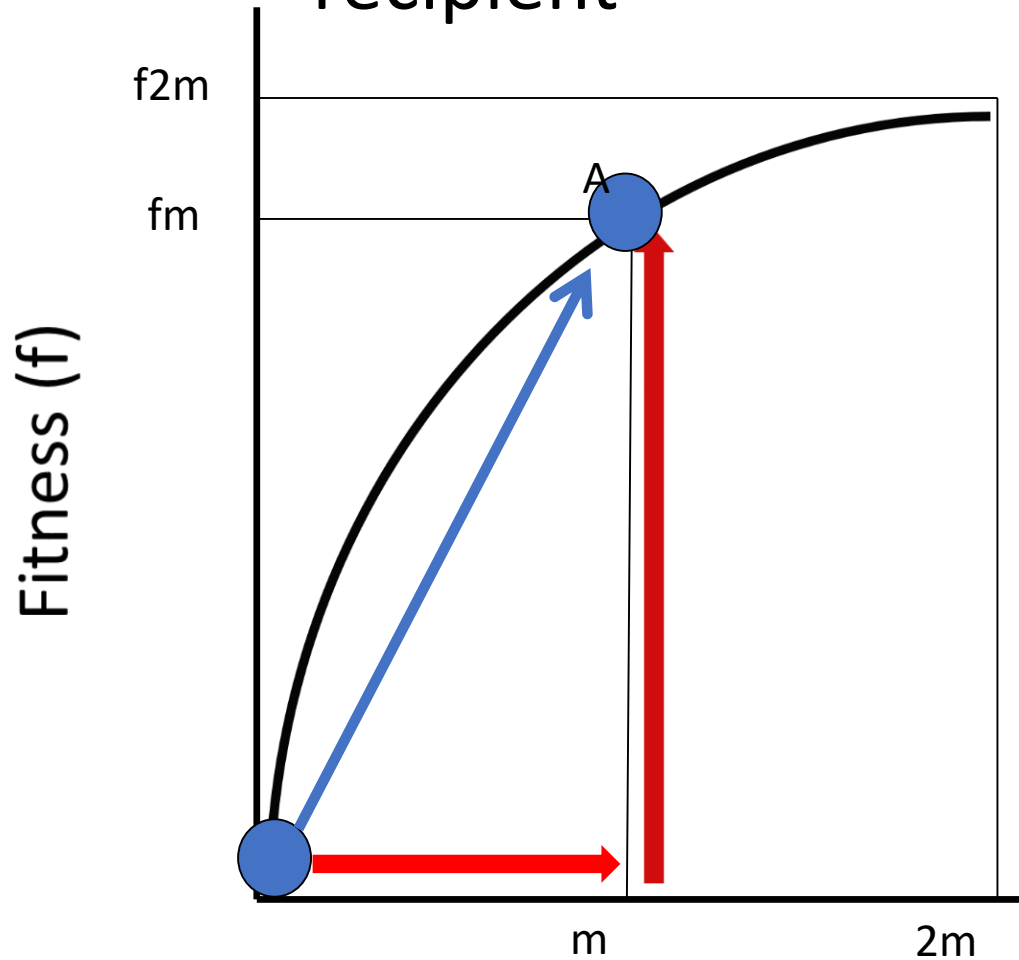


The cost of the altruist less than the profit of the receiver.

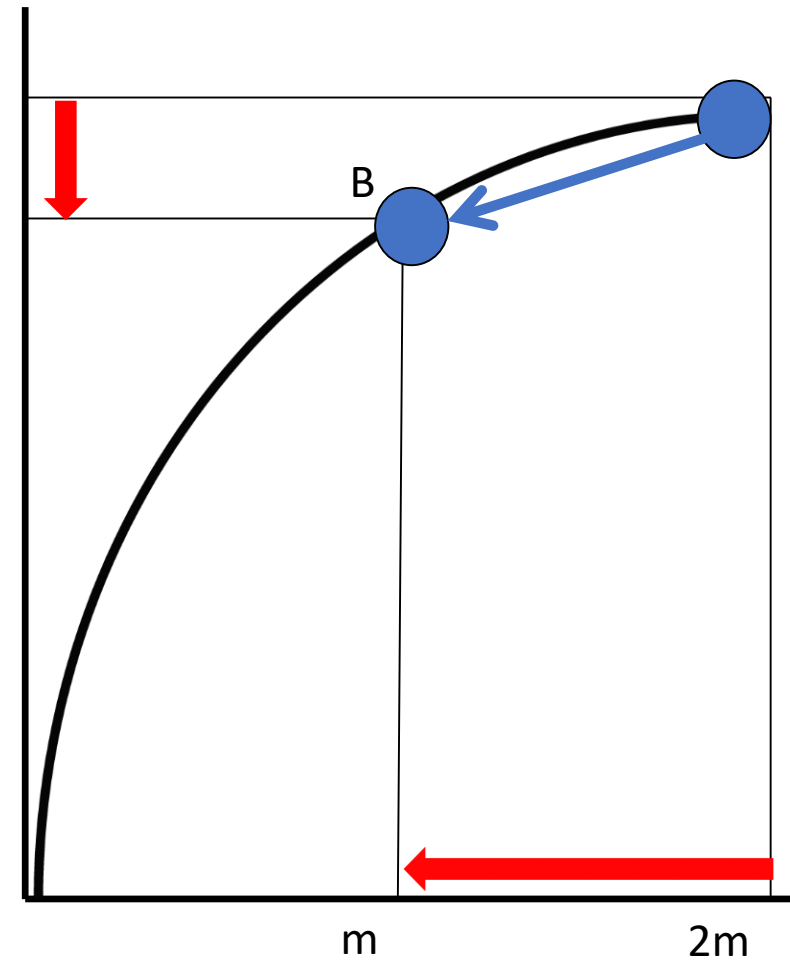
Fitness (f) as a function of resources (m)



Former
altruist, now
recipient

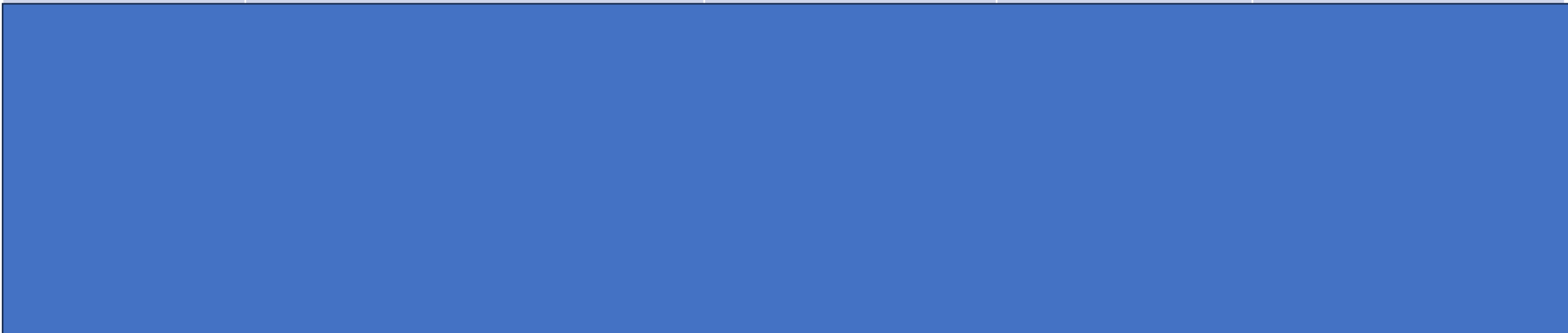


Former recipient
now altruist



Resources (m)

7 MORAL ELEMENTS	BIOLOGICAL MECHANISM	VIRTUE	HUMAN ANIMAL	NON-HUMAN ANIMAL
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4. HEROISM	GAME THEORY: HAWK Maynard Smith & Price, 1973	Being brave	✓	
5. DEFERENCE, RESPECT	GAME THEORY: DOVE Maynard Smith & Price, 1973	Being respectful, withdrawn needs, submissive	✓	



A bit of....Game Theory

a **Game** is any conflict situation,

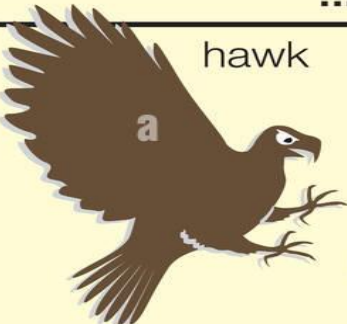


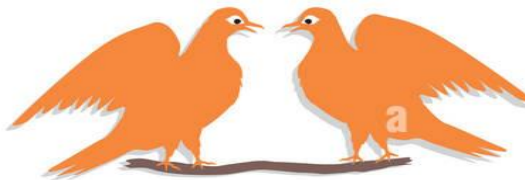
a **Player** is any participant (human, company or animal);

Units of utility – e.g. money, an increase in the chance of passing on one's genes or anything else, including pure satisfaction.

The outcome of a game is usually assigned a **certain numerical value**.

Each side (all players) chooses a certain strategy, and then, depending on their own strategy and that of the other participants, each player receives a payout in units of utility;

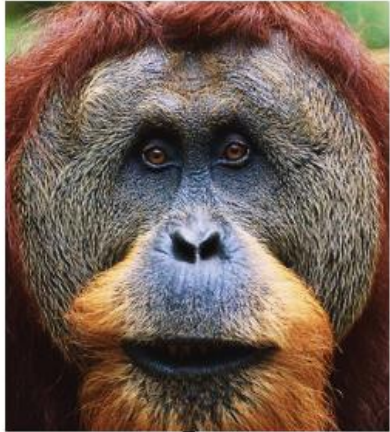
Hawk-Dove Model: Costs and Benefits of Fighting over Resources

Payoff* to...	...in fights against:	
	hawk	dove
hawk	 <p>Hawk wins 50% of fights; is injured in 50% of fights.</p> <p>Payoff: $(V-D)/2$</p>	 <p>Hawk always wins; dove flees.</p> <p>Payoff: V</p>
dove	 <p>Dove never wins; is never injured.</p> <p>Payoff: 0</p>	 <p>Dove wins 50% of fights; is never injured; <input type="text"/></p> <p>Payoff: $V/2 - T$</p>

* V = fitness value of winning resources in fight
 D = fitness costs of injury

(Maynard Smith & Price 1973)

Orangutan



Gorilla



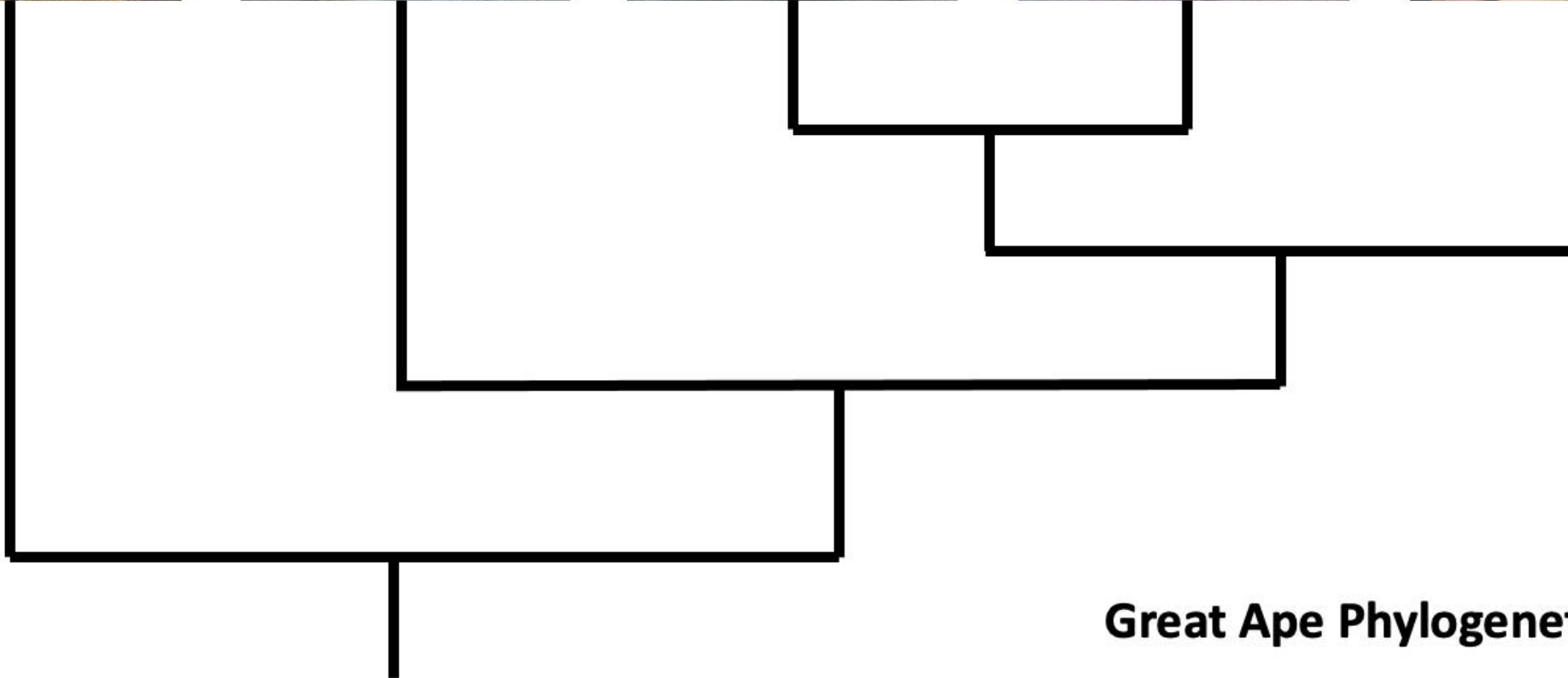
Chimpanzee



Bonobo



Human

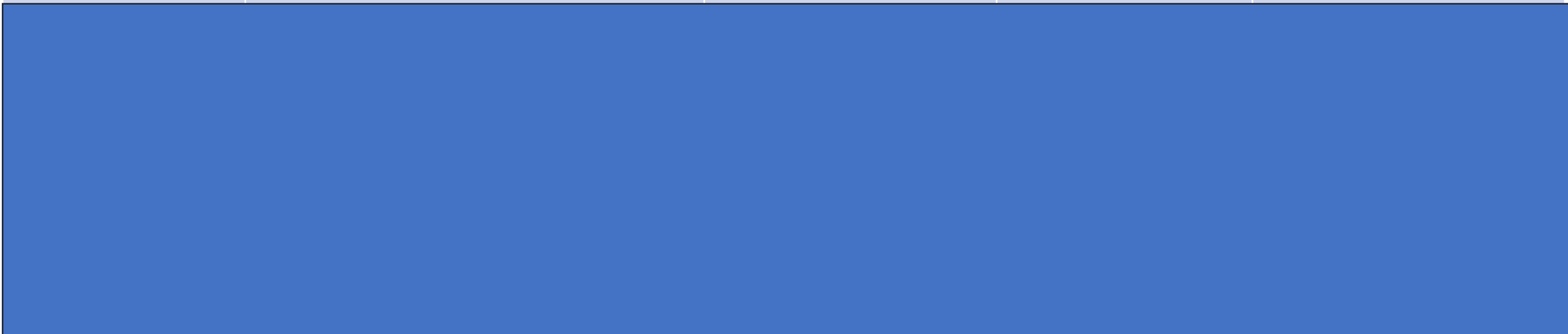


Great Ape Phylogenetic Tree

4 & 5 -
4'00



7 MORAL ELEMENTS	BIOLOGICAL MECHANISM	VIRTUE	HUMAN ANIMAL	NON-HUMAN ANIMAL
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4. HEROISM	GAME THEORY: HAWK Maynard Smith & Price, 1973	Being brave	✓	✓
5. DEFERENCE, RESPECT	GAME THEORY: DOVE Maynard Smith & Price, 1973	Being respectful	✓	✓



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6. Fairness: Everyone is doing the best they can given what others are doing, and no one can do better by changing their own strategy alone.

A method to divide something fairly by maximizing the total happiness of everyone involved.

It's all about finding a balance where everyone feels things are fair and no one can do better without making someone else worse off.

6. FAIRNESS

FAIRNESS, HIERARCHY
Nash, 1950;

Dividing resources,



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7. PROPERTY

OWNERSHIP, legalist's strategy
Maynard Smith, 1982)

Respect for property,
property rights



7 –
1'00



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2. GROUP	AGGREGATION OF COOPERATORS (Doebeli 2007)	Helping group members: Team value, sport clubs, music fans	✓	✓
3. RECIPROCITY	RECIPROCAL ALTRUISM (Axelrod, 1984; Trivers, 1971)	Engaging in reciprocated cooperations: Trust, return of favours, paying debts	✓	✓
4. HEROISM	HAWK& DOVE Maynard Smith & Price, 1973	Being brave: Strong, tough, heroic (in battle)	✓	✓
5. DEFERENCE, RESPECT	GAME THEORY: DOVE Maynard Smith & Price, 1973	Being respectful: deferential, obedient to hierarchy, (family, convent, army)	✓	✓
6. FAIRNESS	FAIRNESS, HIERARCHY Nash, 1950	Dividing resources, managing conflicts, treating others equally	✓	✓
7. PROPERTY	OWNERSHIP, legalist's strategy (Maynard Smith, '82)	Respect for property (ownership, land) not stealing, robbing etc.	✓	✓

culture, upbringing, rules, religion –
social construct



MORALITY



biology, evolution, genes,
adaptations

Conclusions

- Morality is no mystery. We have a theory.
- Morality is a collection of biological and cultural solutions to the problems of cooperation and conflict recurrent in human social life;
- game theory reveals what those problems are and predicts solutions .

Morality as cooperation explains:

what morality is,
where it comes from,
how it works,
and what it is for.

Sources:

- Curry, O. S., Mullins, D. A., & Whitehouse, H. (2019). Is it good to cooperate? Testing the theory of morality-as-cooperation in 60 societies. *Current anthropology*, 60(1), 47-69.
- Movies: <https://www.youtube.com/watch?v=dNy7WEqt5Uo> – kin selection (birds)
- https://www.youtube.com/watch?v=ADWSG_JtcEw – reciprocal altruism (bats)
- Hawk and Dove: <https://www.youtube.com/watch?v=CpLFpx-zN34>
- Respect Territory: <https://www.youtube.com/watch?v=3t9yguoCC00>
- Czat GPT
- <https://vervet.za.org/the-vervet-forest/>
- **A Question of Scruples** is a [card game](#) based on [ethical dilemmas](#). The game was invented by Henry Makow in 1984 and developed by High Game Enterprises.^[1]
- Game theory online game!!!! <https://ncase.me/trust/>

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