

States of Nature: Geographical Aspects of Human Evolution

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Plan of the talk

- I. Prosociality from war? Darwin's conjecture
- II. Chimpanzee Referential Doctrine and "Deep Roots" of Human War
- III. Arguments Against Pre-State War
- IV. A Non-War-Based Model of Human "Self-Domestication"
- V. States and Their Others

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- I. **PROSOCIALITY FROM WAR? DARWIN'S CONJECTURE**
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Prosociality

- Helping and hurting others according to social patterns.
- Thus, "prosocial" doesn't mean "nice":
- it means an intellectual understanding of, and emotional investment in, social partners and patterns, which can motivate and justify punishing violators as well as helping those in need.
- Although there is often a gradient at group borders, on the whole prosociality creates a high threshold for intraspecies violence.

Darwin on evolution of prosociality

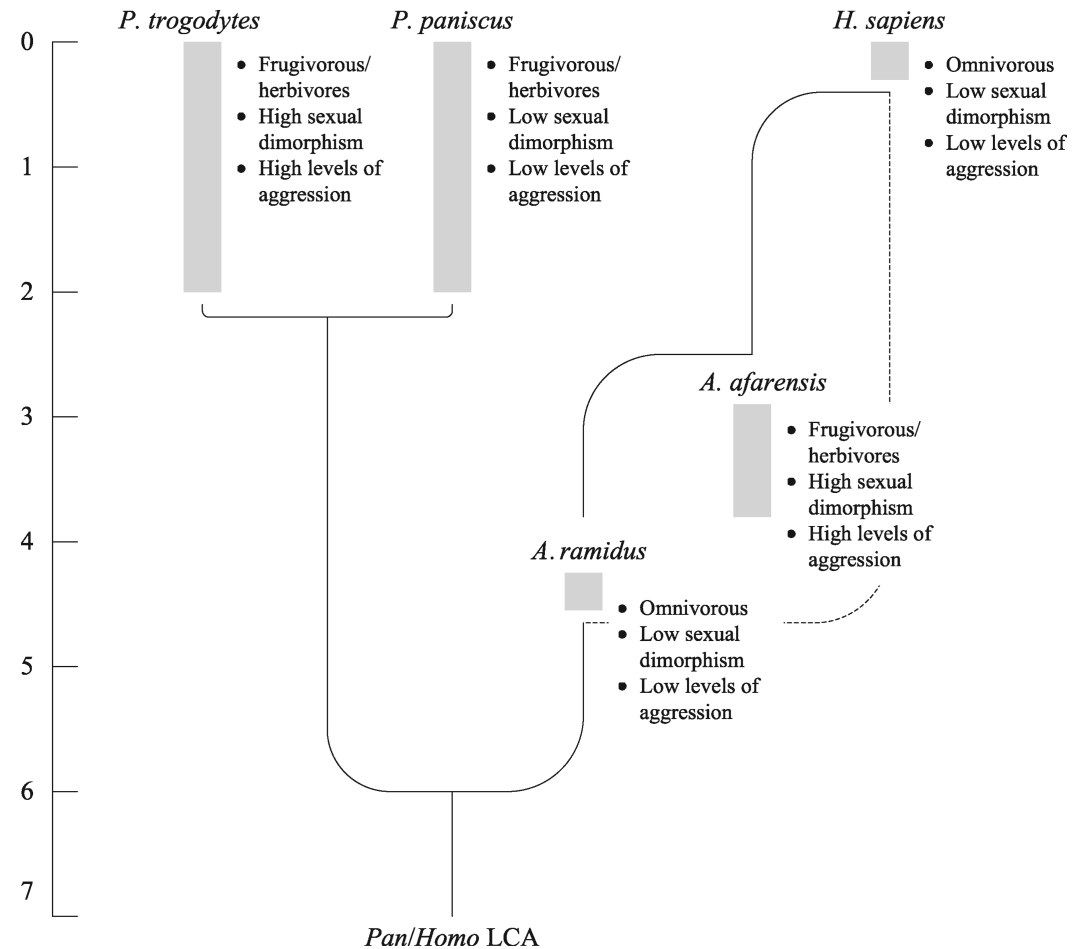
“When two tribes of primeval man, living in the same country, came into competition, if (other things being equal) the one tribe included a great number of courageous, sympathetic and faithful members, who were always ready to warn each other of danger, to aid and defend each other, this tribe would succeed better and conquer the other (Darwin *The Descent of Man* 2004 [1871], 113).”

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Chimpanzee Referential Doctrine

- CRD: Chimps are better than bonobos as models for LCA
 - Chimps are in-group aggressive dominators
 - Chimps practice border raiding
- That sounds like some human social practices
- But is that “human nature”?
- Or an unjustified generalization?

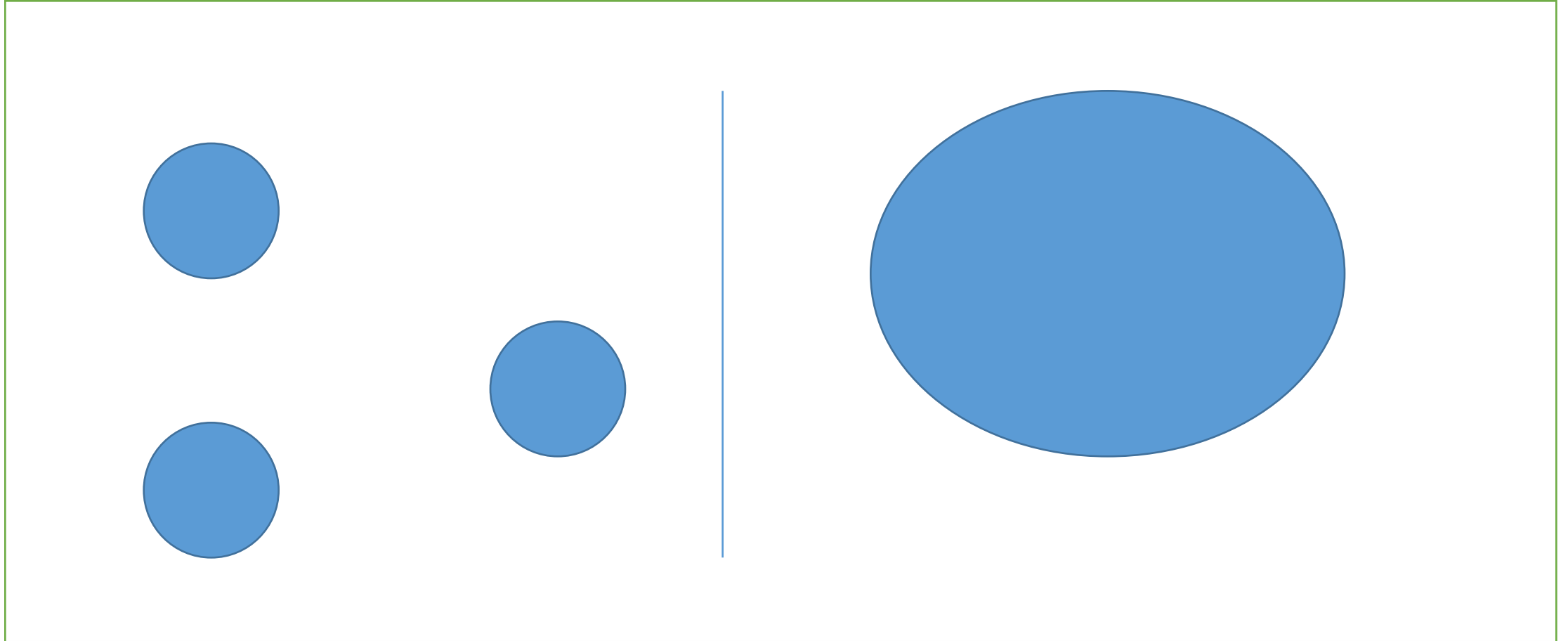


From: On Social Tolerance and the Evolution of Human Normative Guidance

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Chimpanzee vs bonobo feeding zones

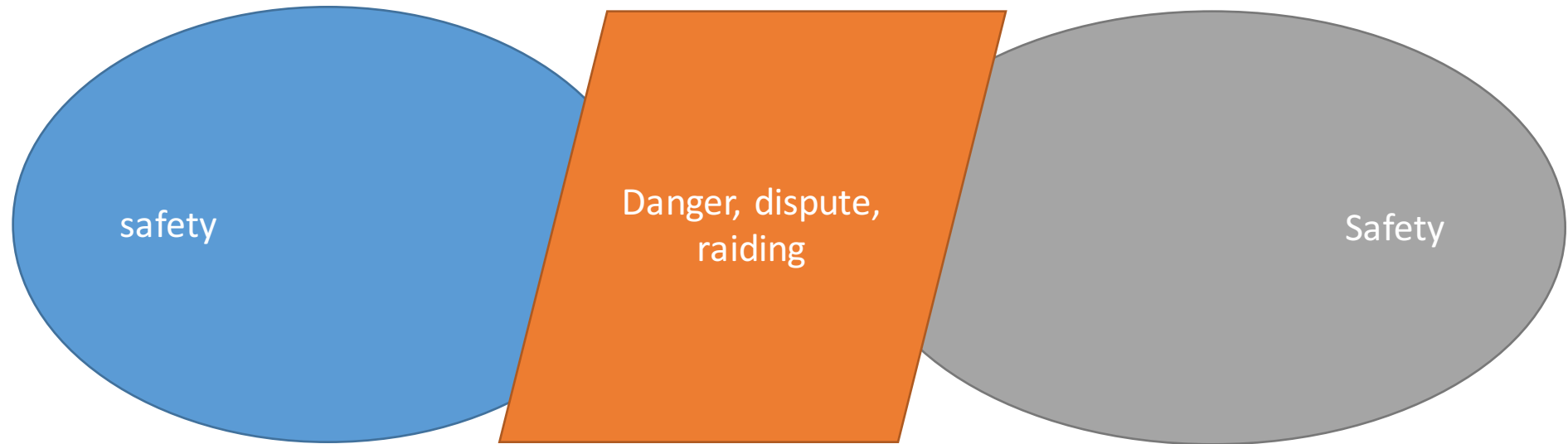


C. Boehm

BONOBO FEMALES
COOPERATE TO ATTACK MALE
DOMINATORS



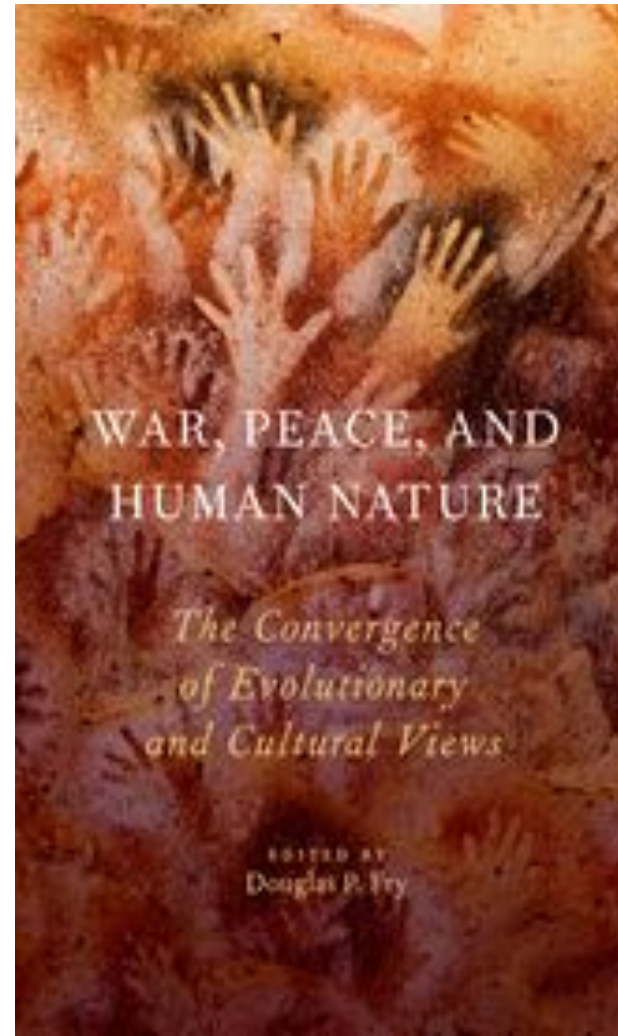
Chimp raiding restricts resource zones



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War, Peace, and Human Nature (Oxford 2013)



Archeology: Ferguson, “Pinker’s List”

Challenges idea that deadly intergroup violence has been common enough to act as a selection force shaping human psychological tendencies, toward either external violence or internal cooperation.

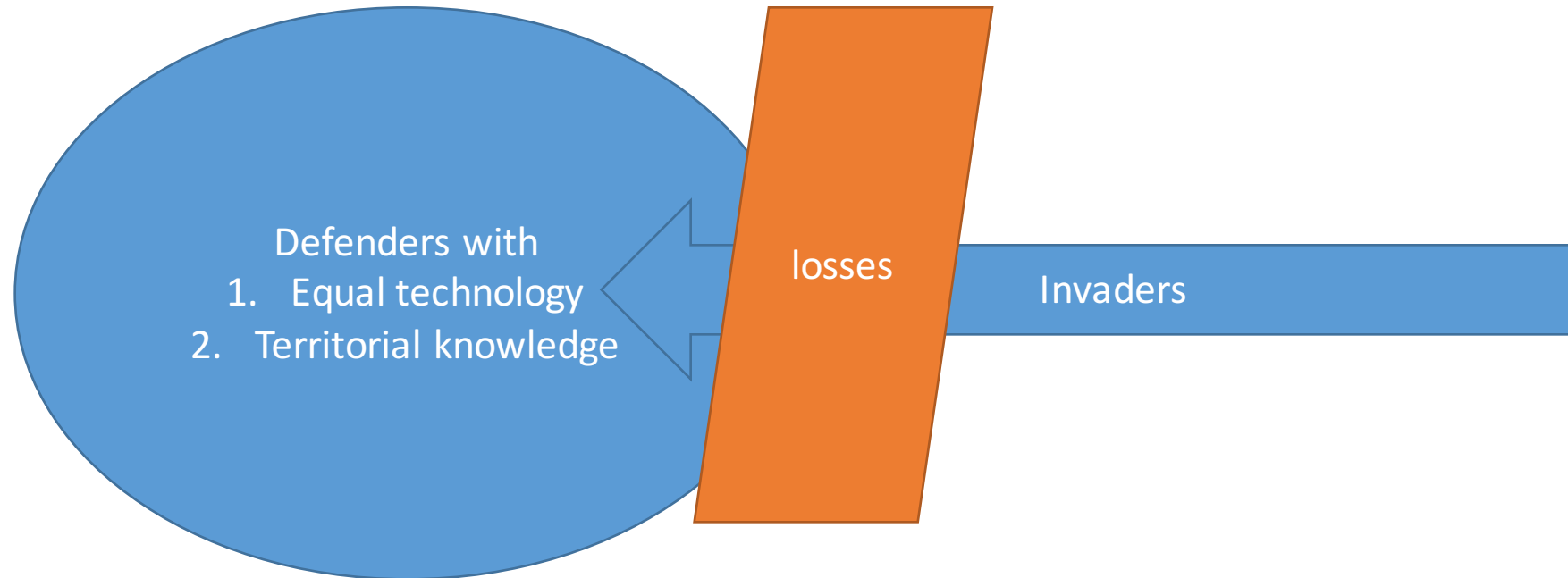
3 related propositions: (a) war was ubiquitous throughout our species evolutionary history; (b) war is a natural expression of evolved tendencies toward deadly violence against individuals outside the social group; (c) war casualties were sufficiently high to select for behavioral tendencies conferring reproductive advantage in intergroup competition.

For either (b) or (c) to be true, (a) must be true. However, archaeological evidence shows (a) to be false.

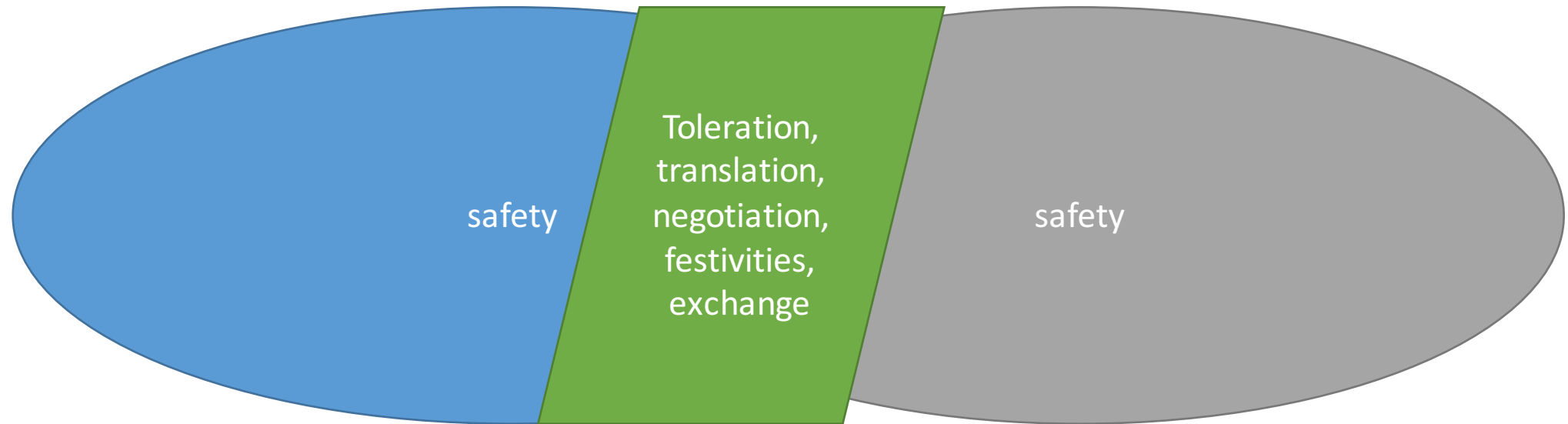
Materialist argument against pre-state war

- Defensive advantage with equal technology
- Peace-making is more effective resource variance insurance
- Social-psychological implausibility
 - Social selection against bullies, dominators, killers
 - Implausible to segregate that only into inter-group action
 - But its in-group expression is selected against
- And besides, even if you did enslave those you conquered, you would have to arm them to help you hunt

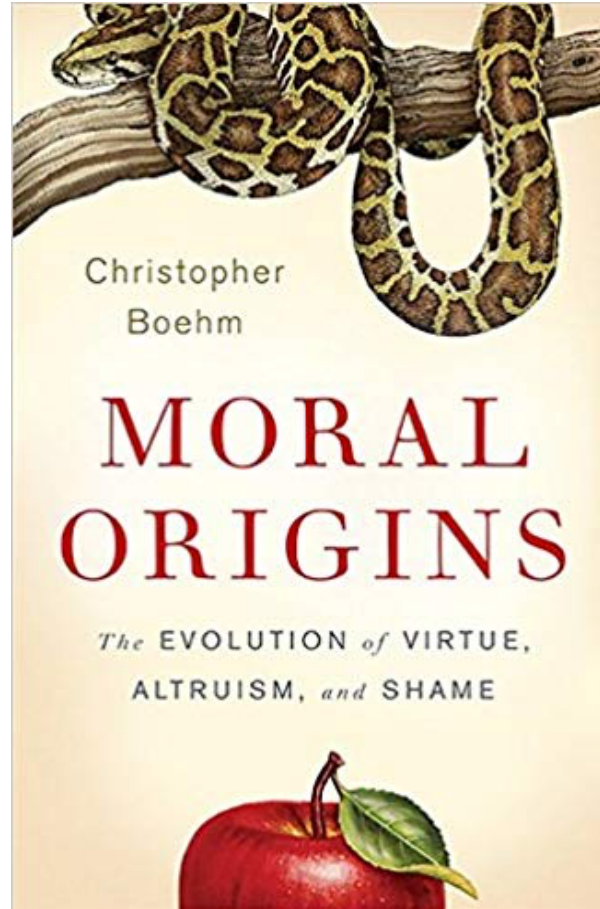
Kelly: Intrinsic defensive advantage



Peace-making: allies are more effective
resource variance insurance than enemies



Social selection against dominators



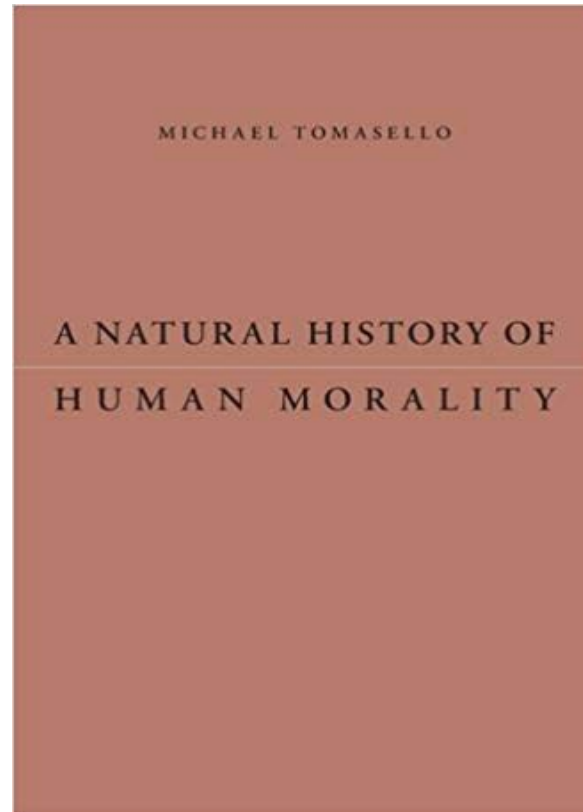
Sterelny: psychological implausibility of segregating dominance into inter-group vs intra-group expression



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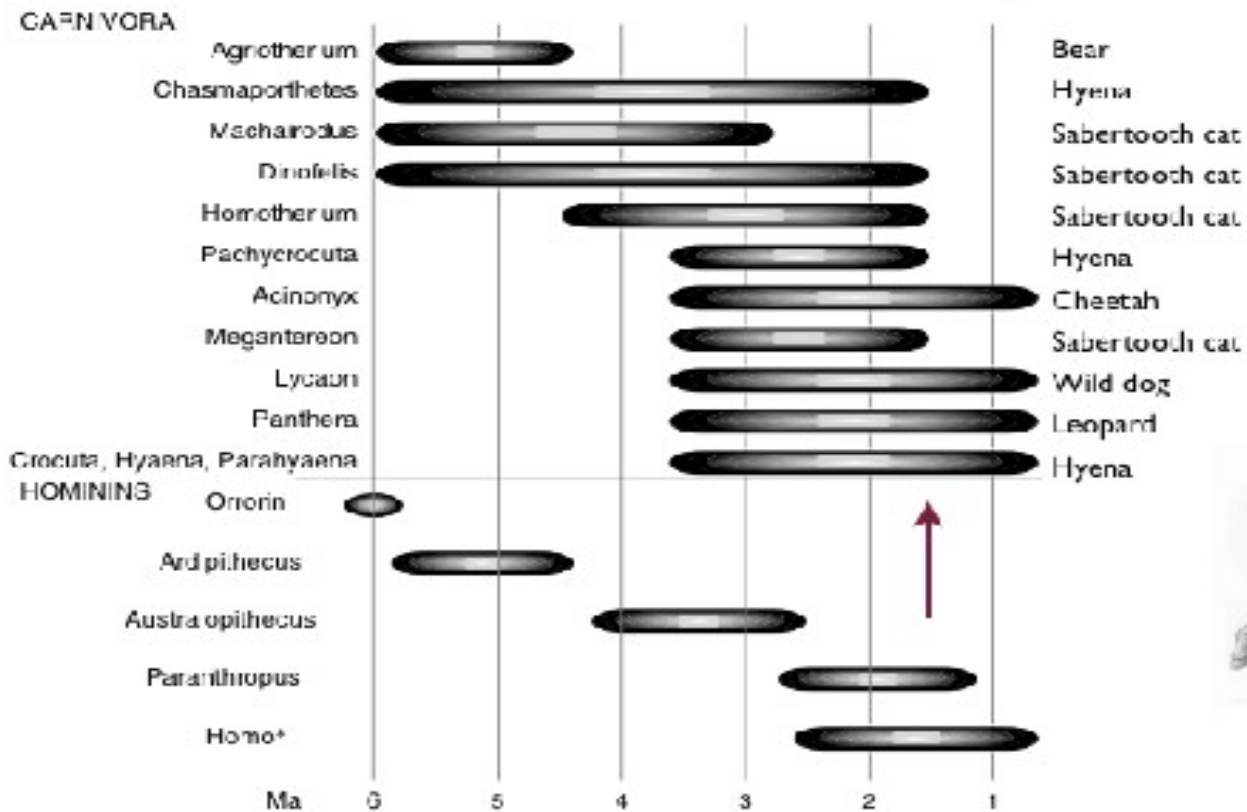
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Non-war based model of human “self-domestication”: collaborative foraging



Collective self-defense against predators

African carnivores and hominids



- Bear
- Hyena
- Sabertooth cat
- Sabertooth cat
- Sabertooth cat
- Hyena
- Cheetah
- Sabertooth cat
- Wild dog
- Leopard
- Hyena



Warning



Scavenging



Power scavenging



Hunting



But what about early women?


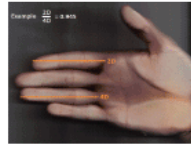

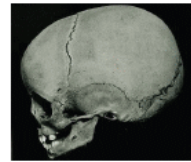
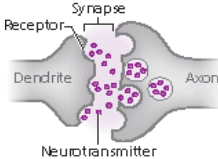
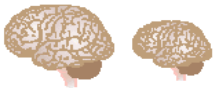
- Some argue that most steady calories came women's gathering.
- It's very difficult to know much about early social structures, unless you fully buy into the CRD.
- If you're the least bit agnostic there, then you need pretty strong modesty in your claims about
 - How strict the gendered division of labor was
 - Female roles in group discussion and decision making
 - And hence the strength of female sexual selection of mates with attractive traits

What good was hunting then?

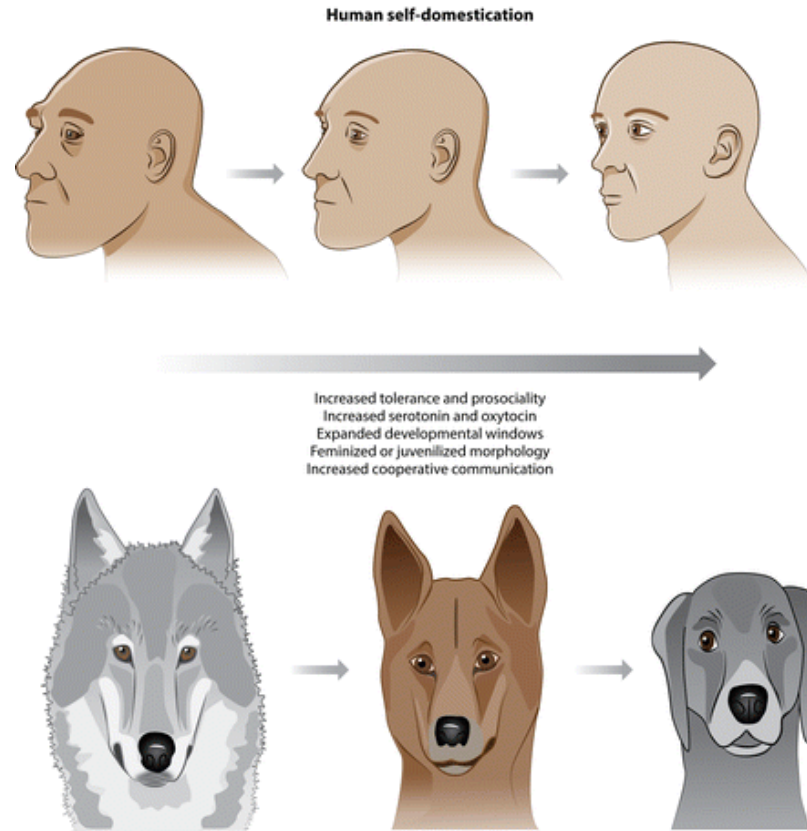


Human Self-Domestication

Brian Hare, “Survival of the Friendliest”
Annual Review of Psychology, 2017

Image	Morphological trait	Changes indicated	Time of appearance	Reference
	Reduction in brow ridge and facial length	Reduced pubertal androgens and less despotic behavior in males	Middle/Upper Paleolithic	Cieri et al. 2014
	2nd digit to 4th digit length ratio (2D4D)	Reduced prenatal androgens and increased sensitivity to social cues	After the split from Neanderthals	Nelson et al. 2011
	White sclera	Increases in oxytocin and mutual gaze	Predicted: after the split from Neanderthals	Tomasello et al. 2007
	Globular cranial development	Early emergence of social cognition and the brain's social network	After the split from Neanderthals	Hublin et al. 2015
	Extended synaptic pruning	Late onset of adult self-control	Predicted: after the split from Neanderthals	Casey 2015
	Absolute brain size increase	Increase in self-control and social tolerance	Predicted: beginning with the appearance of genus <i>Homo</i>	MacLean et al. 2014

Facial Morphology changes consistent with domestication. Hare 2017



Top-down anger control and bottom-up desire to cooperate

“Human infants as young as 14 to 18 months of age help others attain their goals, for example, by helping them to fetch out-of-reach objects or opening cabinets for them. They do this irrespective of any reward from adults (indeed external rewards undermine the tendency), and very likely with no concern for such things as reciprocation and reputation, which serve to maintain altruism in older children and adults.”

Warneken and Tomasello, "The Roots of Human Altruism" (2009)

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- I. Against Social Evolutionism
- II. Intersecting "Economies" forming a "Virtual" Field
 - I. Decision
 - II. Production
 - III. Violence
 - IV. Sex

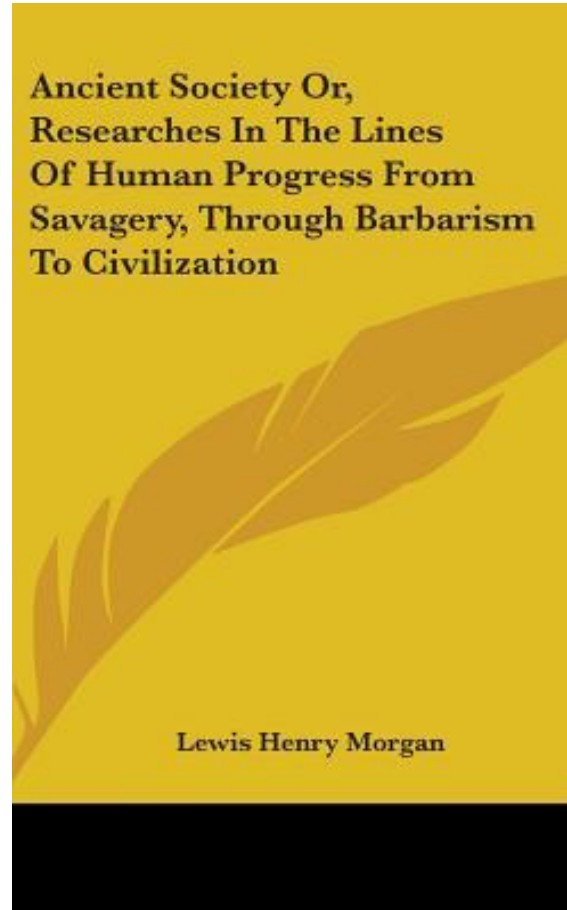
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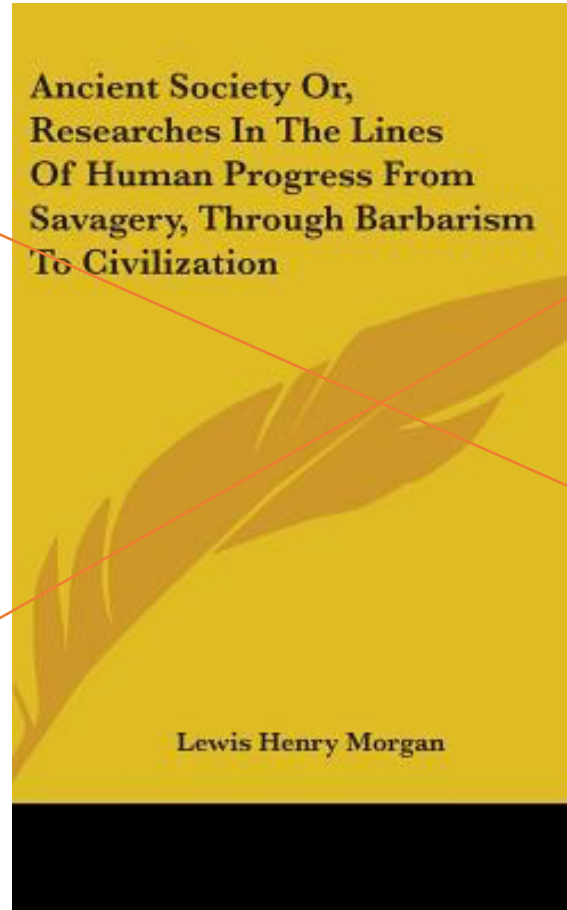
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Morgan: Progress



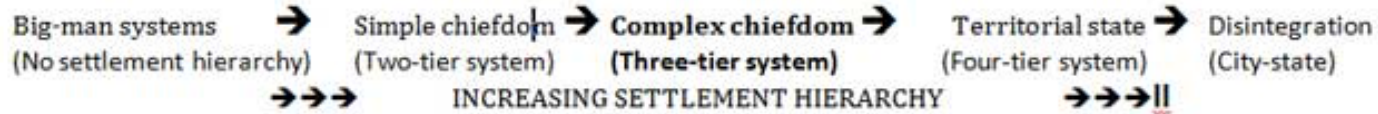
Against Social Evolutionism



Too much linearity

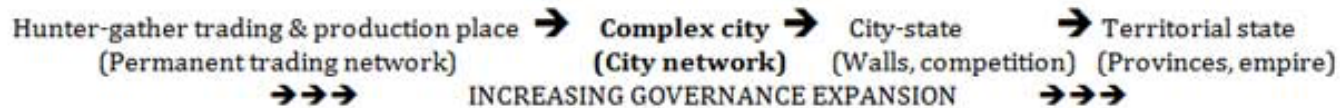
(a) STATES OUT OF CHIEFDOMS

Hunter-gatherer bands



(b) CITY-STATE INVENTION

Hunter-gatherer temporary trading post
(Part of temporary trading network)



Pivotal stage/step in bold

V. Gordon Childe: “Urban Revolution”

The “Urban Revolution”

- V. Gordon Childe was among the first to discuss the development of ancient civilizations (Near/Middle East)
- defined states – “urban revolution” - based on the presence of certain key elements, most notably: cities, writing, surplus, metallurgy, craft specialization
- technological innovations (e.g., metallurgy, writing), craft specialization, and agricultural surplus were key in the emergence of ancient states
- Surplus, in particular, allowed certain individuals to be freed from agricultural labor, creating social inequality (capital, alienation, and class)
- as with “Neolithic Revolution,” states were seen as an advancement over earlier cultural forms and given the right conditions a natural development for humankind

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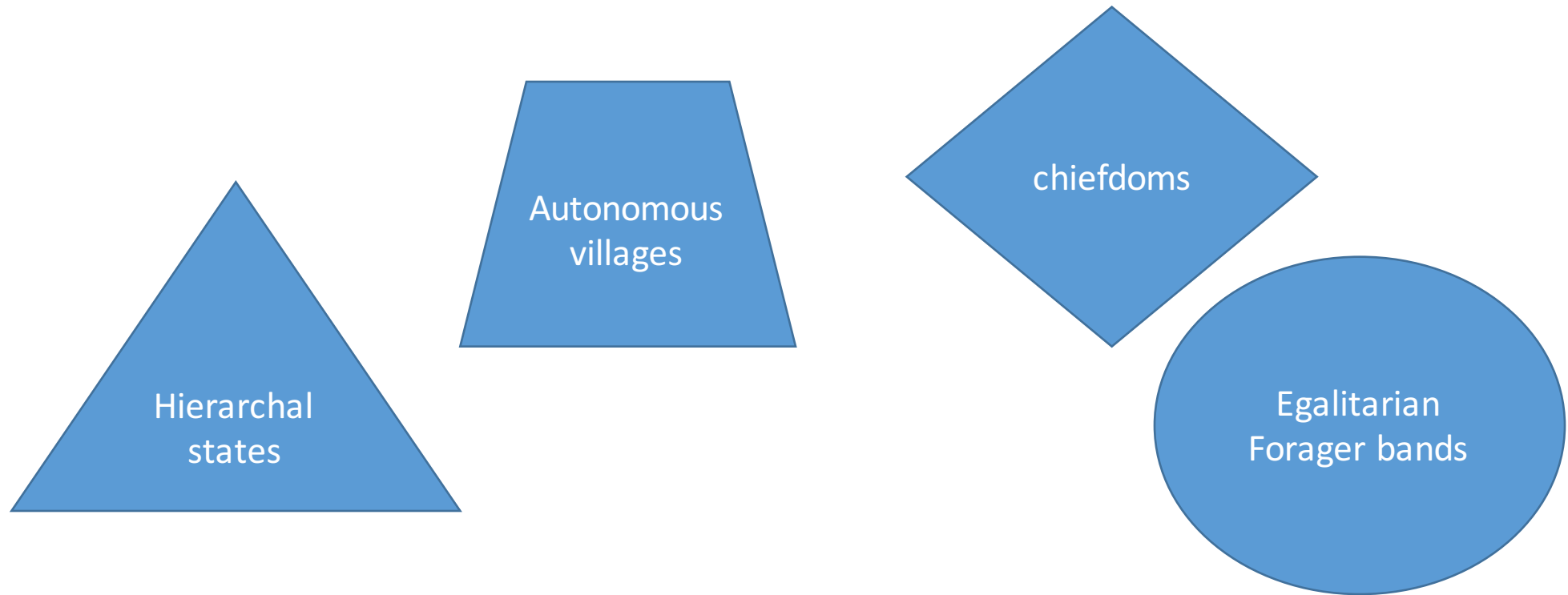
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4 intersecting “economies” forming a virtual field or “multiplicity”

- Economy of decision-making: persuasion – command / fission-fusion
- Economy of production: human niche construction of “nature”
- Economy of sexual practices: allowed / forbidden / encouraged, etc
- Economy of violence:
 - Inter vs intra group
 - Individual or group action
 - Spontaneous or planned
 - State-forming / state-resisting / predation on states or non-state peoples

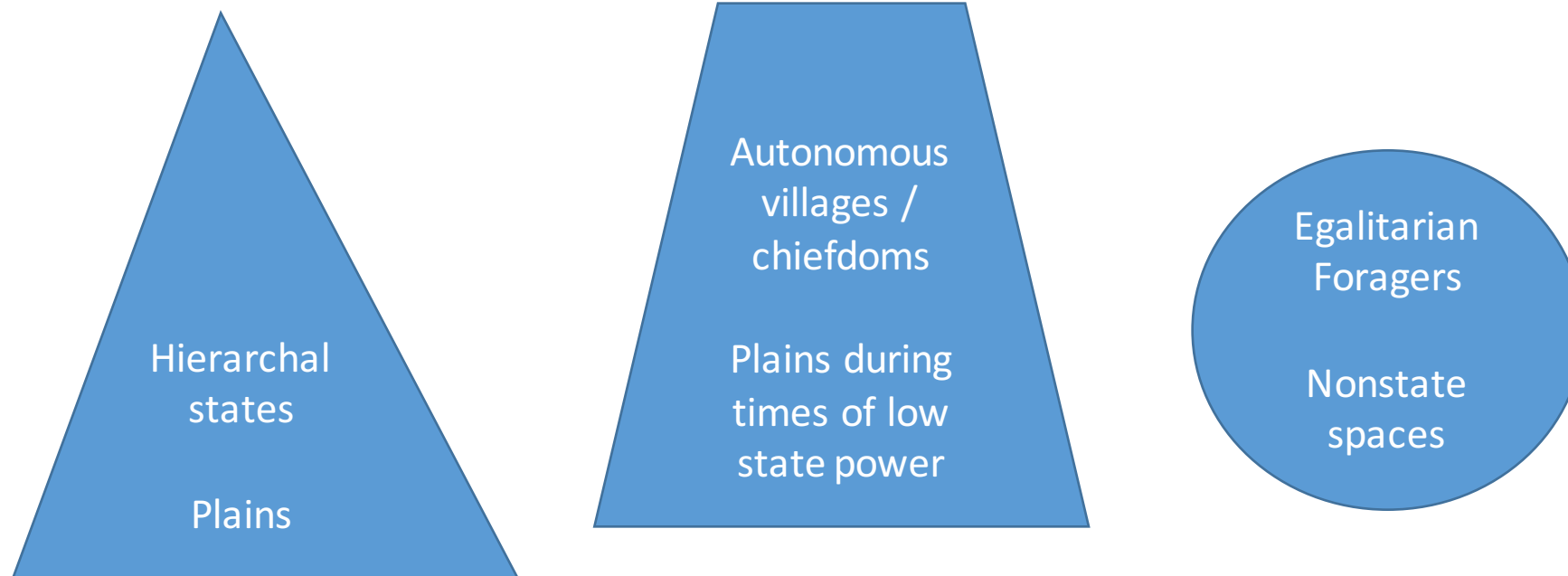
James C Scott: adopts Carneiro's virtual field of social forms: political economy



Scott: virtual field of productive practices

- Agriculture: grain agriculture
- Horticulture / swidden agriculture
- Foraging / hunting-gathering
 - Can be nomadic
 - Can be sedentary if foods come to you seasonally
- Eco-rich wetlands allow all sorts of combinations here
- 4-10K year experimentation nuances the “urban revolution” thesis
- Once states come together, individuals state rise and fall, but the state-form is difficult to dislodge

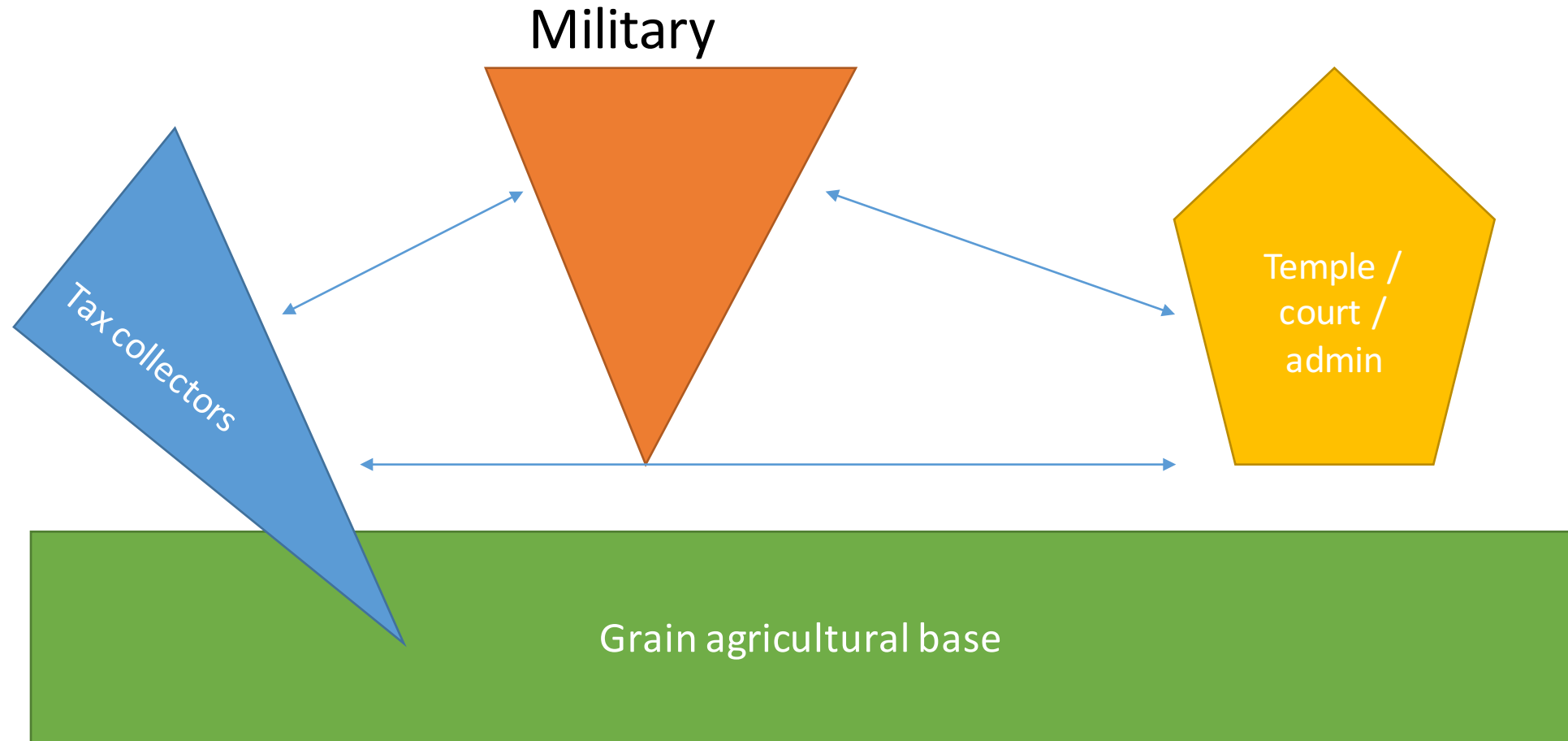
Scott's big contribution: geographical factors



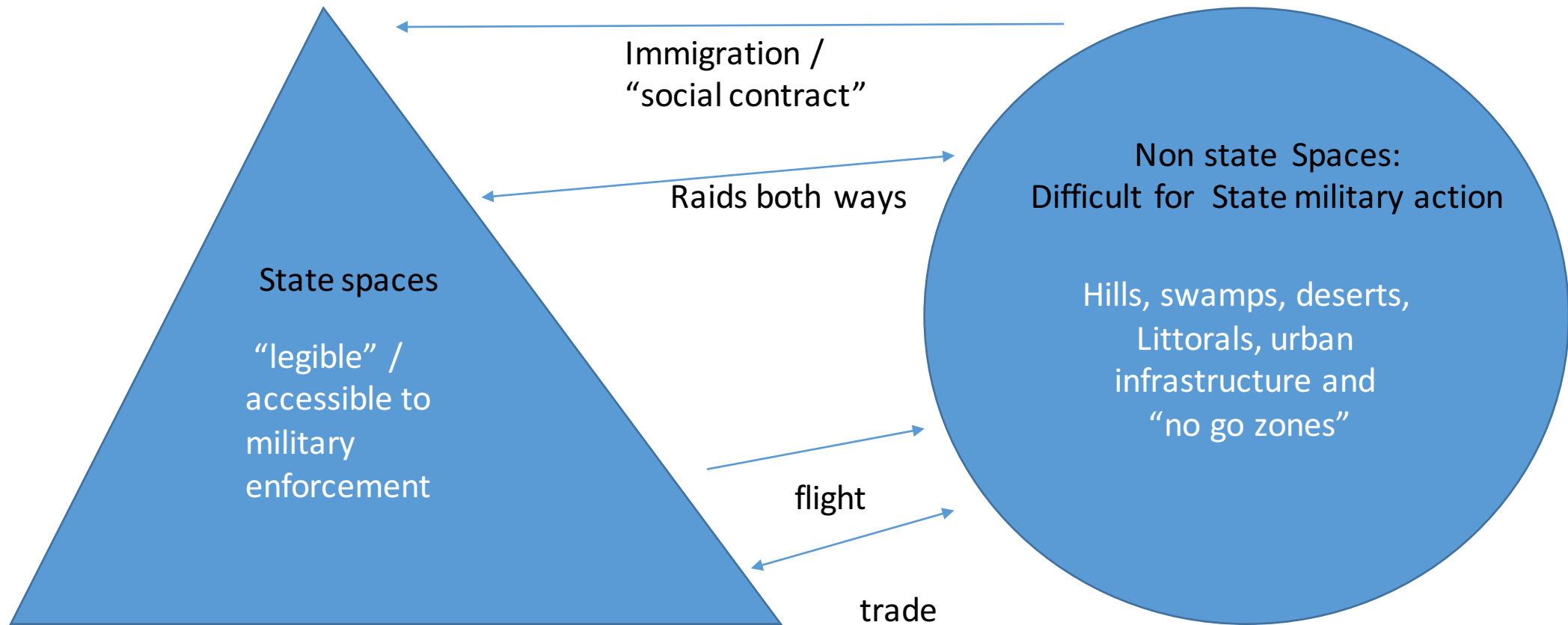
Scott: link of grain agriculture and states: economies of production, decision, violence

- Grains are “legible,” taxable, measurable, comparable
- They can produce a surplus for specialists
- And the specialists can enforce appropriation of the surplus
- But the very act of increasing population density and mixing with animal populations
 - Increases death rates and flight rates
 - Population replacement becomes necessary
 - Leading to need for military
 - to enforce appropriation
 - To raid other populations to acquire new forced / enslaved laborers

Mutual pre-suppositions



Geographical factors: “run for the hills”



Interactions among all economies: decision, production, violence, sex

