

# Future Design and Social Cohesion: Evidence from Nepal

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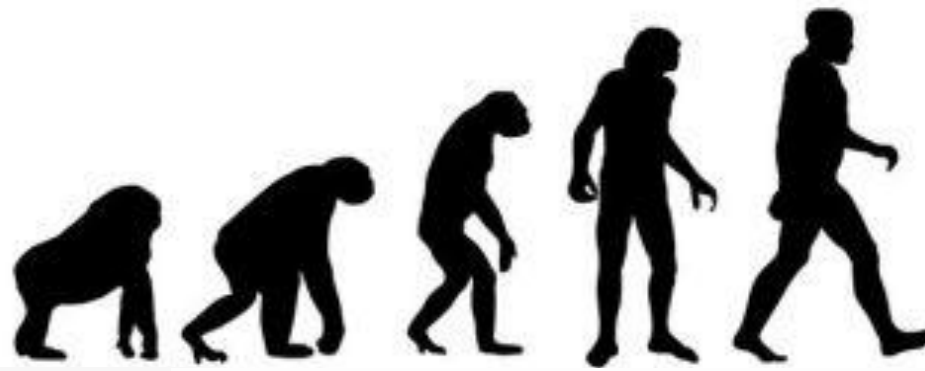
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# Revolutions in human history:

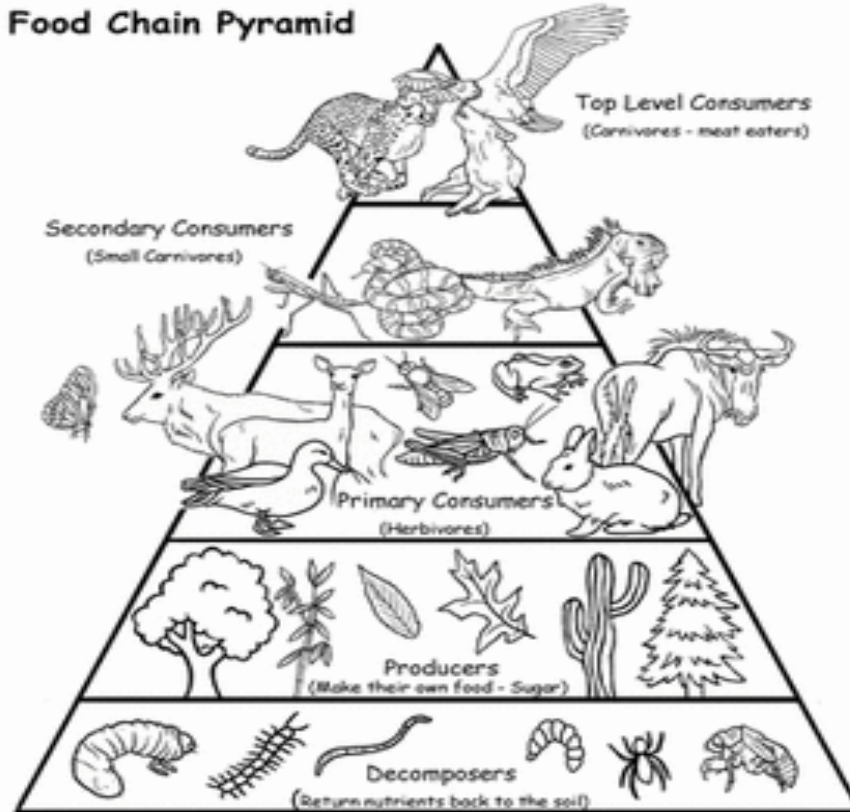
The revolutions that happened during human history

1. The cognitive: 70,000 years ago
2. The agricultural: 12,000 years ago
3. The Scientific: 500 years

Humans cooperation threshold is 150  
(Hill and Dunbar, 2003)

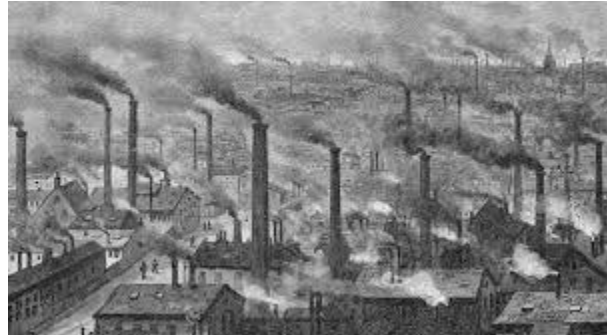


Food Chain Pyramid



Cognitive revolution

# Agricultural revolution



# Industrial revolution



# The evolution in humans history:

Homo Erectus: Up right man



Homo Habilis: Handy man



Homo sapiens: Wise man



Now ??? Homo → Prospectus ,  
Gilbert(2006)

# We live mostly by thinking about future

- ❖ One study that survey of 2,250 adults, found “mind-wandering” occurred remarkably 46.9% of times points sampled (Killingsworth and Gilbert, 2010)b)
- ❖ A human can predict the hedonic consequences of the event that he/she never experienced.
- ❖ Mind-wandering theory purposes it serves for the planning and simulate plausible outcomes to an alternative future.

# Culture, prospection and cooperation

- ❑ Culture is understood as learned behavior that is shared socially.
- ❑ Animals also have culture, as they copy and mimic each other's behavior, and they can transmit to others in a group.
- ❑ Collective planning only becomes possible when group members can share a vision about the future through prospection.



# What makes us care about future generations?

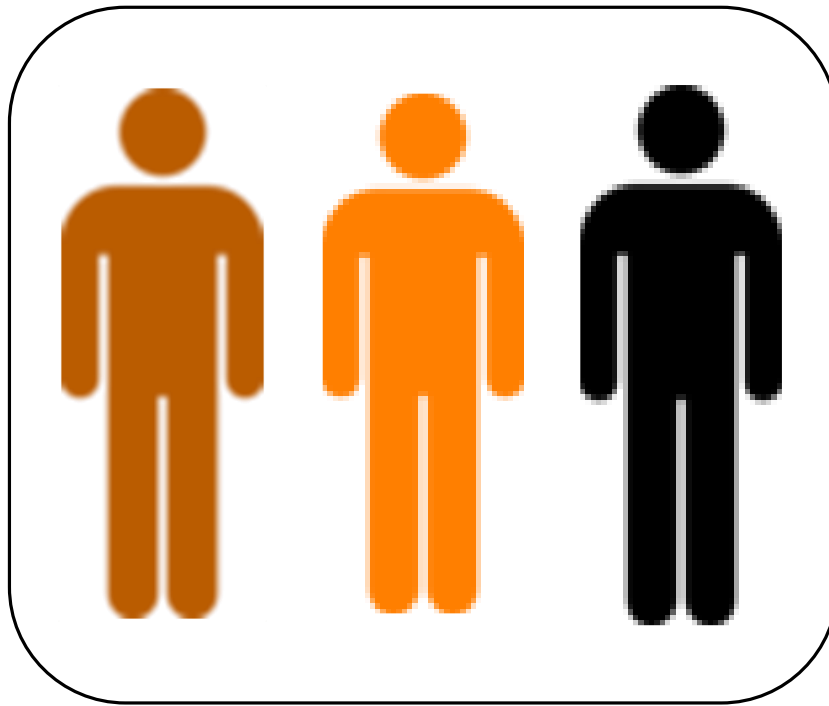
- Can we cooperate with future generations to maintain intergeneration suitability?
- Why do we have so many intergenerational problems?



# Intergeneration sustainability . . . . .

- a) Sustainability is a minimum condition to be satisfied, that is, maintaining the same welfare of successive generation, as compared with the current generation. (*Dasgupta, S. and Mitra, T., 1983* )
- b) ISD, “Intergenerational sustainability dilemma,” is defined as a situation where the current generation chooses action to her benefit without considering future generations, compromising intergenerational sustainability (*Kamijo et al., 2017 , Shahrier et al., 2017*)

# 3 Person: Intergenerational Sustainability Dilemma game (ISDGG)



# ABゲームの流れ



第1グループ



第2グループ



第3グループ

.....

.....

# グループ間での影響



第1グループ



第2グループ



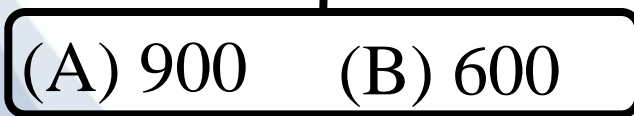
# グループ間での影響



第1グループ



第2グループ



# 注意点

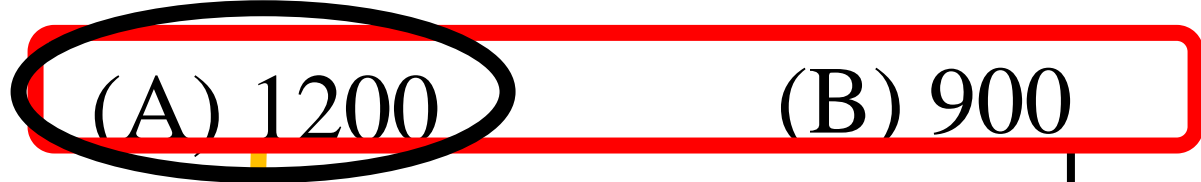
「オプションAを選ぶと後に続くグループの追加ポイントは一律に300減少」

○第2グループが第3グループに与える影響  
(第1グループがAを選択した場合)

# グループ間での影響



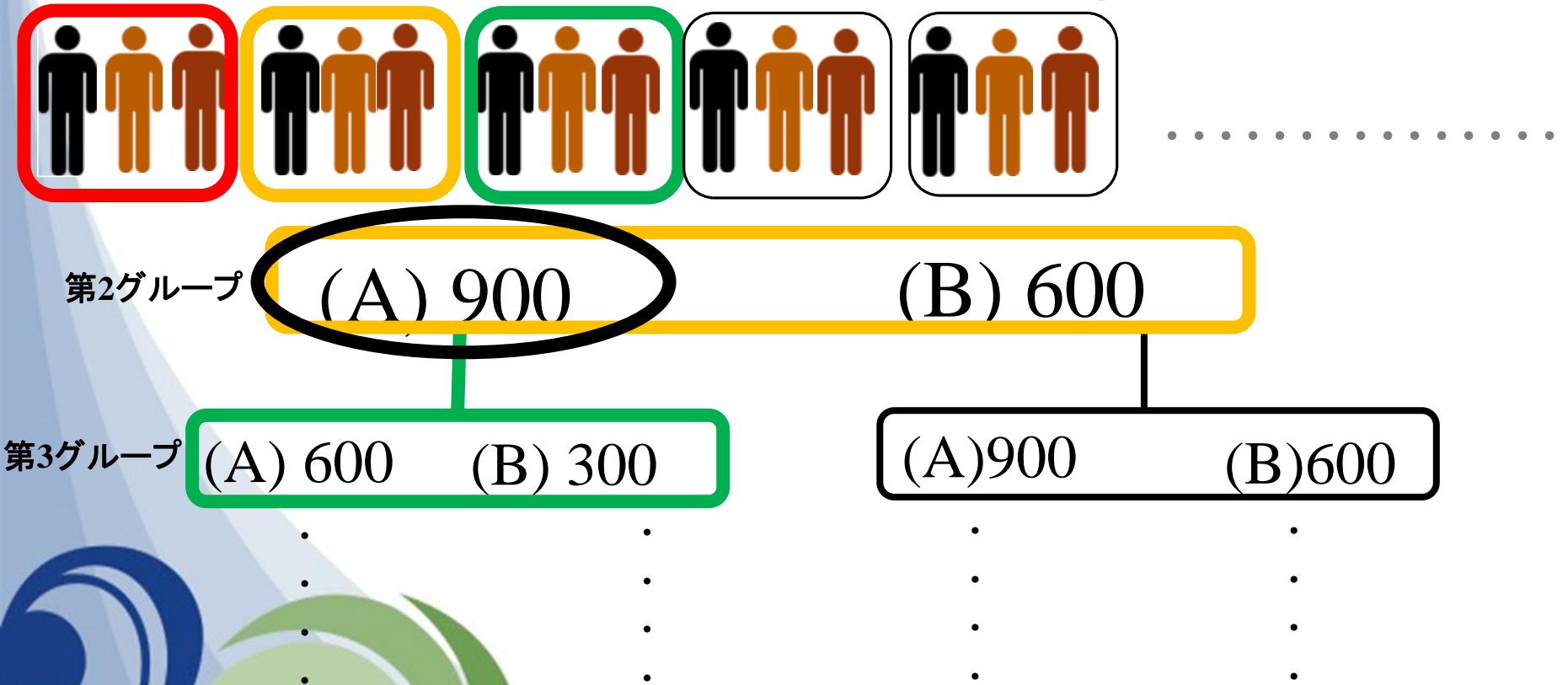
第1グループ



第2グループ

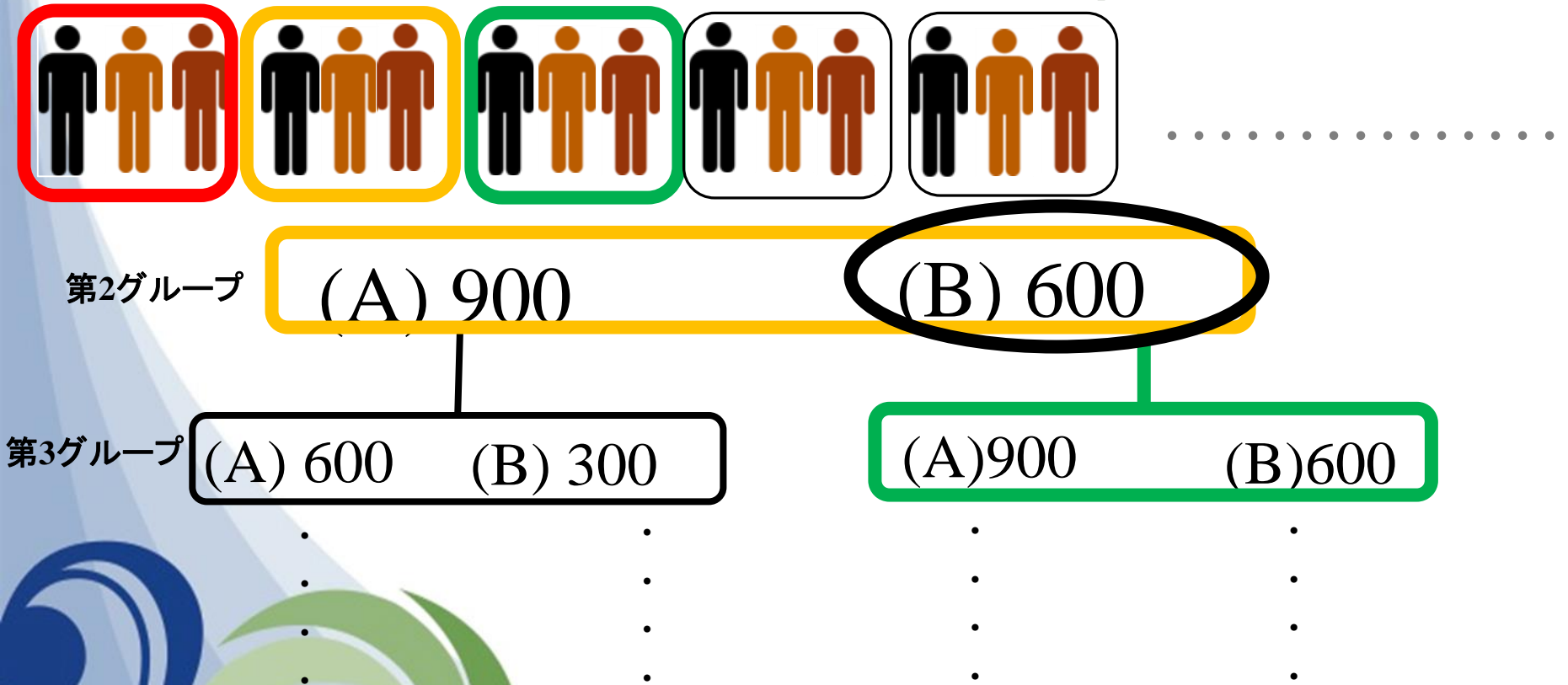


# グループ間での影響





# グループ間での影響



「オプションAを選ぶと後のグループの追加ポイントが一様に300減少」というルールは第1グループから第2グループ、第2グループから第3グループ、第3グループから第4グループ、…など、次に続くすべてのグループに適用されます。

# Map of Nepal



# Difference between Urban and Rural areas

Table 2: The frequency and percentage of generation choices of *A* and *B* (percentage in parenthesis)

Generation choices between <i>A</i> and <i>B</i>	Area		Total
	Urban	Rural	
<i>A</i>	21 (35.59 %)	10 (16.13 %)	31 (25.62 %)
<i>B</i>	38 (64.41 %)	52 (83.87 %)	90 (74.38 %)
Total	59 (100.00 %)	62 (100.00 %)	121 (100.00 %)

# Can we be accountable to future generation?

Table 1: Frequencies and percentages of generation choices between options *A* and *B* in the baseline ISDG, IFG and IA

	A	B	Overall
Baseline ISDG	21 (35.59 %)	38 (64.41 %)	59 (100 %)
IFG	14 (29.78 %)	33 (70.22 %)	47 (100 %)
IA	7 (14.58 %)	41 (85.42 %)	48 (100 %)

# Some practices

- ❑ Solid waste management in Kathmandu: “Future design” as a framework for policymaking tools to manage household waste in Kathmandu city.
- ❑ Workshop as an attempt to use “Future design” for visioning and practicing for tackling household waste in Pokhara municipality, Nepal

## Future work of “Future design”

- a) Modeling education in developing countries to promote future thinking for sustainability

# Thank you

Take away:

- We can still design a better future for the next generations, those who are yet to come into this world.
- Co-operation is humans virtue; all we need is furthermore practice.



# References:

- a) **Daniel T. Gilbert, & Timothy D. Wilson.** (2007). *Prospection: Experiencing the Future*. *Science*, 317: 1351-1354
- b) **Dasgupta, S. and Mitra, T.** (1983). Intergenerational equity and efficient allocation of exhaustible resources. *International economic review*, 24:133–153.
- c) **Hill, R. A. & Dunbar, R. I. M.** (2003). *Social network size in humans*, *Human Nature*, 14: 53-72
- d) **Kamijo, Y., Komiya, A., Mifune, N., and Saijo, T.** (2017). Negotiating with the future: Incorporating imaginary future generations into negotiations. *Sustainability science*, 12:409–420.
- e) **Shahrier, S., Kotani, K., and Saijo, T.** (2017). Intergenerational sustainability dilemma and the degree of capitalism in the society. *Sustainability science*, 12:957–967.



