

Chapter 18

Competition or Cooperation?

18.1 Readings and Homework

- Readings: Darwin Selections pp. 389-408
- Homework:
 1. What is Spencer's theory? On what scientific theories is it based? What does it propose?
 2. Explain why the law of competition is essential to the progress of humanity according to Carnegie. How does Carnegie reconcile his social Darwinism with his being Christian?
 3. Explain what are the respective weight of struggle and cooperation in the process of evolution according to Kropotkin
 4. Explain what is the prisoner's dilemma. What is it supposed to show? How were the conditions of the experiment modified? What results came out of such modifications of the experiment?

18.2 Spencer's times: Hofstadter

Characteristics that made Spencer's theory successful:

- "scientific in derivation": satisfies the modern mind.
- "comprehensive in scope": replacement for a broad world view.
- non-technical: take-home pre-made philosophy.
- strongly assert the compatibility between science and religion

- **Scientific foundation:**

- Evolution
- Thermodynamics and conservation of energy

Aim : to give a coherent, comprehensive view of the world on the basis of both physics and biology.

Positivist pyramid of sciences, from the protozoa to the human beings

- **Spencer's world view:**

Evolution is a process from incoherent homogeneity to coherent heterogeneity – its final result would be a state of equilibrium “because the evolutionary process cannot go on forever in the direction of increasing heterogeneity”

Progress to complete happiness and human perfection is a necessity

“evolution can end only in the establishment of the greatest perfection and the most complete happiness”

- **Times of industrial revolution:**

- poverty and wealth both rising quick, living next to each other in the new cities.
- Also crime, disease, pollution.

- **Ultra conservatism:** social darwinism aims at determining how we can avoid interfering with the natural dynamics of society.

- no protection for the poor: against the welfare state
- no education or health assistance
- “laissez-faire” economy

A great source of comfort: what occurs necessarily occurs and it is what ought to occur as well! No moral qualms anymore.

- **Discussion**

1. Spencer did not understand Darwin 1: How does Spencer's argument about the necessary progress up to perfection sound to you?

Darwin never admitted an idea of perfect equilibrium: the process of evolution is indefinite

2. Spencer did not understand Darwin 2: What is best fitted?

Such and such quality is not by itself more valuable but only given the conditions of life. It seemed that the only norm that Darwin gave in the *Origin* is the **diversity**. In this case, the more diverse the human society is, the more perfect, in Spencer's sense, it is.

Here are some examples which show the absurdity of Spencer's use of Darwinism:

- Diversity is important in case of change of environment:

Survival in hard conditions of cold and hunger: young aristocrat or kid that grew up in the street (*The day after tomorrow*: homeless guy knows how to fight the cold)

So, that the same characters or same type of men (business men) survive only is "bad" under the criterion of diversity.

- Aristocracy and same blood: idiocy

In short, the economic life is but **one of the many contexts** in which human beings can show whether they are "fitted" or not. **IF** we really want to apply a notion of natural selection to the human race, then the only consequence that we can draw from the theory of evolution is that the more diverse the human population is, the more progress it will make.

3. Spencer's conclusion is neglecting important facts:

- Evolution is about offspring, is it not? But are not poor people the ones who have most important offspring, in the city but also at the level of the planet?

Hence, if we follow a reasoning of Spencer's type, poor people in poor countries are the most fitted – let the intellectuals and selfish businessmen die off!

If you strictly apply the idea that natural selection should apply to human society, and if you want to say that those who survive are the best fitted, then you have to conclude that the poor people in "developed" countries and the entire third world are the best fitted to our world. The western countries, the aging population of Europe in particular, are on their way to disappear, and this is the way it should be?

If so: no political plan to encourage natality should be implemented!

4. The naturalistic fallacy:

Now, we can also question the very assumption of this reasoning: is the mere fact of the matter that natural selection is sufficient to make it our guide for the evolution of human societies? This question divides into the two following:

1. To what extent are humans and human societies within the process of evolution?
2. To what extent do we want, as humans, that what we ought to do be dictated by natural laws?

To put it bluntly, if you take the **fact** of evolution as the base of your **values**, then you'd better go have as much offspring as you can, with people of the most diverse types possible. Have the most offspring possible. The ones that do not survive, let them die.

If you think these are not acceptable values for your life, if you think about your kids in terms of fulfillment, education and not only surviving of your genes, then you should start to understand that the reasoning above is unacceptable. It is unacceptable because it relies on the **naturalistic fallacy** is, that is, take natural facts for values ("it is good because it is natural"). Nature is just a bad guide for our society!

18.3 Carnegie

18.3.1 The Text

1. became good friends with Spencer (394)
 2. made a fortune in steel, spent most of it on philanthropy, wrote extensively on business and society
 3. in the selection from *The Gospel of Wealth* (1900) argues that we are better off for the "law of competition" (396)
 - a. not as individuals, but as a species
 - b. all of civilization depends on private property
 - 1.) we tried socialism and communism already in the days of our primitive ancestors
 - 2.) all the progress we have made has resulted from getting away from that and allowing for the accumulation of wealth

4. anticipates the objection that sharing and brotherhood would be a better thing (396-7)

a. replies that even if we grant this, we would have to change human nature to achieve it (397, q.v.)

b. our duty is limited to what is possible (q.v.)

c. like Spencer, regarded the laws of economic competition as unchangeable:

There is no more possibility of defeating the operation of these laws than there is of thwarting the laws of nature which determine the humidity of the atmosphere of the revolution of the earth upon its axis. (Carnegie, *The Empire of Business*, 1907, p. 67; quoted by Appleman on p. 11.)

5. Charity (397)

a. better to throw money in the sea than to give it to the unworthy

b. the idea is to give in such a way as to provide the means for others to improve themselves (q.v.) – hence Carnegie’s establishing of Carnegie Tech, public libraries in Pittsburgh, etc.

c. indeed, this is how he gets around that Biblical saying about how it’s harder for a rich man to enter heaven than to pass a camel through the eye of a needle – give it all away before you die! (397-8)

E. Subsequent historians, however, have been somewhat skeptical of Hofstadter’s claims

1. all the talk about survival of the fittest and laissez-faire competition may have just been a lot of empty rhetoric

2. after all, the major industrialists at the time, including Rockefeller and Carnegie, were not interested in competition; they were interested in monopoly

F. but some appear to have thought that the principle of the survival of the fittest justified monopoly as well: the case of James J. Hill, the railroad baron (393)

18.3.2 Discussion

- Law of competition as “essential to the future of the race”

The idea is that if we want the human race to improve, then let competition work.

Again, the identification of evolutionary process and human progress is highly questionable: the question arises about in what sense and to what extent nature is and ought to be a model for human behavior and human societies.

- The issue of Communism: it might be a better ideal, but it goes against the very nature of men...

This is a big assumption about the nature of men: Rousseau would say that men are perverted by the society, but is naturally good.

- The industrial modern society is “the best and most valuable of all that humanity has yet accomplished”
 - what about Asiatic, African societies?
 - what about science, medicine, art? are these less important achievements than individualist capitalism?

18.4 Kropotkin

18.4.1 The text

From Prof. Schmaus notes:

I. Introduction (398)

- A. Politics and natural history
 1. Kropotkin was a famous leader of the anarchist movement in Russia
 2. But his work in natural history was not unrelated to his politics (403)
 - a. he felt compelled to refute the view that nature consists of a violent struggle in order to show that human cooperation was natural and need not be imposed by governmental force
 - b. hence, in his book *Mutual Aid* (1902), he reported on his studies of cooperative behavior among herds of animals in Northern Asia, and made comparisons with Polynesian societies and medieval guilds

- two things that struck Kropotkin in his travels in Northern Asia (398)
 1. severe struggle against climate, resulting in sparse population
 2. where life was abundant, he failed to find a severe struggle among animals of the same species (398)
- observing the Siberian winters led him to the conclusion that such "natural checks to overmultiplication" played a far more significant role than the struggle among individuals of the same species over subsistence (399)
 1. came to doubt the role that severe competition was suppose to play in the evolution of species
 2. where animals did have to compete for food, they all suffered to such an extent that he did not see how evolution could be based on this (q.v.)
- on the other hand, where he did see animal life in abundance, he saw mutual aid and support
- for these reasons, he could not agree with what was being written on the relationship between Darwinism and sociology (399-400)
 1. they all accepted that a struggle for existence among members of the same species was a "law of nature" (400)
 2. Kropotkin saw no proof that such a struggle was the necessary condition for progressive evolution
 3. Some evolutionists admit the importance of mutual aid among animals, but, like Spencer, deny it for humans (401)
- from Kessler takes the idea that there is a law of mutual aid as well as a law of mutual struggle (400)
 1. and that *mutual aid was more important for the success and evolution of the species*
 2. this idea is also suggested by Darwin in *The Descent of Man* – by which I take it he is referring to what Darwin says about social instincts
- Social instincts
 1. not based on just love and sympathy

- a. it's not love of his neighbor that leads him to help put out a fire
- b. rather, it is a "vague feeling or instinct of human solidarity and sociability"
- 2. similarly, for animals
 - a. it is not love or sympathy that leads horses to circle the herd to defend it against wolves
 - b. nor is it love or sympathy that leads thousands of migrating deer to form into herds that all head to same spot to cross the Amur River
- 3. *in both humans and animals, there is an instinct that has evolved over a very long time that has taught them the benefits of mutual aid and support in social life*
- 4. Espinas: "One doesn't associate in order to die" (402)
- human society (400)
 - 1. not based on love and sympathy
 - 2. rather, on "solidarity," the "unconscious recognition of the force" gained by mutual aid (400-1, q.v.)

Mutual Aid among Animals (cont'd.) (401)

- A. Finds sociability to be characteristic of most primates
 - 1. they are deeply unhappy when left alone
 - 2. join together for mutual defense
 - 3. also for help in gathering food – example of monkeys combining to overturn a stone to obtain ants' eggs underneath (402)
- B. admits that gorillas and orangutans are exceptions
 - 1. but he argues that they are limited to small areas and are the mere remnants of formerly more numerous species
 - 2. suggests that gorillas may have been more sociable at one time
- indeed, *he even claims that, apart from a few exceptions, birds and mammals that are not social now were formerly social before human beings came to dominate the planet*

- Association is found at all evolutionary levels
 1. more instinctual at lower levels, more voluntary at higher
 2. with higher vertebrates, can be
 - a. periodical, such at migration time (402)
 - b. or occasional, such as for mutual defense
- Association in animals can also take place at different social levels
 1. family, then group, then association of groups (402-3)
 2. e.g., rodent burrows forming villages and cities (403)
 3. I think here he's going out on a limb: primate studies do not support this view of groups within groups

End of Prof. Schmaus's notes.

18.4.2 Discussion

- **What Kropotkin has in common with the Social Darwinists:**
 - human behavior is and should be in continuity with animal behavior
 - progress of humanity comes with natural selection
 - the best we can do is to let it evolve as it is naturally supposed to – nature is the best foundation of morals
- **The point on which Kropotkin differs with social Darwinists** is that selection is not mainly guided by struggle, but most importantly by **mutual aid**.
 - Examples in animals.
 - Idea is that humans are the same.
- Kropotkin is an anarchist

In anarchism also the state is banned! so the idea of “Do not intervene with natural laws” remains.

The difference is that the natural laws on which he want to base the laws of the society are different. Here the most important law is not competition, but cooperation.

- So:
 - same pattern: law of nature is law of society
 - but different law: cooperation instead of competition
 So, according to the “biology” you accept, you are advocating different laws for the human society.

PB: do we need natural selection to justify cooperation? to what extent do we want to base our ethics on natural laws?

Kropotkin is guilty of the naturalistic fallacy as well.

18.5 The modern debate about cooperation vs. competition

From Prof. Schmaus’s notes.

Introduction

- A. much research in anthropology and primatology seems to support Darwin’s contention that *cooperation and mutual help played an important part* in evolution (403-4)
- but this raises a *paradox* (404)
 1. what prevents anyone from being a “parasite” or taking a free ride at others’ expense?
 2. after all, natural selection favors reproductive success, so why help others at the expense of your own offspring? (404)
- to answer these questions, need to distinguish:
 1. *kin selection* – it makes sense to help relatives who share the same genes
 2. *reciprocal aid*
 - a. that is, helping others with the expectation that they will help you
 - b. it’s here where cheating is a problem
- to see how reciprocal aid could have evolved, scientists start with a simple, abstract situation

The Prisoner's Dilemma

- *the set-up:*
 1. each of two prisoners is asked whether the other one has committed a crime
 2. the authors present one version which involves awarding points
 3. I think a less confusing version involves length of jail sentence:
 - a. if one cooperates with the police and the other does not, the first goes free and the other gets five years
 - b. if neither cooperates, they get one year each
 - c. if both cooperate with the police, they get three years in jail each
- *here's the paradox*
 1. each one thinks that regardless what the other one does, it's better to rat on him
 - a. if A rats on B, then if B rats on A he gets 3 years and if he doesn't he gets 5
 - b. if A doesn't rat of B, then if B rats on A he goes free and if doesn't he gets 1 year
 2. but the best strategy from their collective point of view is to keep quiet
 - a. total jail time is 2 years
 - b. but if one talks, it's 5, and if both, 6

Virtual Tournaments (405)

- A. although in a single instance of the Prisoner's dilemma it may make sense to cheat, this may *not be the best strategy for repeated instances*
- B. the authors describe a set-up modeling evolution in which
 1. each player has a fixed strategy
 2. the pay-off is number of offspring
 3. the strategy is inherited by the offspring
- C. in the simple case, it pays to cheat

- D. but if we change it so that the same two individuals can interact more than once, the situation changes
 1. Axelrod's computer simulation in the 1970s showed that the best strategy was tit-for tat (406)
 2. that is, you cooperate with another person unless he cheats on you, and then you never cooperate again (405-6)
 3. *although an individual tit-for-tatter is never ahead in any round, eventually a society dominated by cooperative types evolves* (406)

Unpredictable Adversaries (406)

authors introduce some technical complications and find that cooperation tends to be favored in the long run

Innate Cooperation (407)

- A. evolution of cooperation is not unlikely if:
 1. the participants meet each other repeatedly
 2. recognize one another
 3. remember what the other did
- this would seem to agree with Darwin's point about the evolution of moral beings depending on their intellectual development
- but there are also very simple organisms that exhibit cooperation
 1. the authors suggest that even if they cannot recognize and remember each other, we will get the same results if they are constrained by geometry to interact with the same players (407)
 2. I would have thought that cases like social insects could be handled by kin selection

Fixed in Flatland (408)

But it's no surprise that cooperation is easier to get with fixed neighbors than with strangers who come and go!

End of Prof. Schmaus's notes.