Outline

Main Themes

Life & Influences

Psychosocial Schema

Morphological Schema
Main Themes

- Pareto’s contribution to rational model of economics
- extension to non-logical actions
- separating residues & derivations
- distribution of income model for mobility in social structure
- model of circulation of elite
- theory of revolutions
Vilfredo Pareto 1848–1923
Life & Influences

- Early life – Pareto engineer
  - born Paris
  - father exiled Italian baron
  - mother French
  - 1850 back to Italy
  - secondary school in classics (Latin & Greek)
  - then Polytechnical U. in Turin
  - 1869 thesis on principles of equilibrium of solid bodies
  - RR engineer then general manager of Italian RR
Vilfredo Pareto 1848–1923
Life & Influences

▶ Middle life – Pareto economist
  ▶ 1889 marries Alexandra Bakounin
  ▶ 1891 reads Principles of Pure Economics by Maffeo Pantaleoni
  ▶ studies economists Walras, Cournot, Edgeworth
  ▶ 1893 replaces Léon Walras at U. of Lausanne, Switzerland
  ▶ 1896 Course in Political Economics
Vilfredo Pareto 1848–1923
Life & Influences

Later life – Pareto sociologist

- 1898 inherits fortune, moves to Céligny, Switzerland
- 1901 Alexandra leaves him, returns to Russia
- 1902 Jeanne Régis moves in
- 1909 *Manual of Political Economy*
- 1916 *Treatise in General Sociology*
- ca 1923 marries Jeanne Régis
- 1923 dies in Céligny
Vilfredo Pareto 1848–1923

Relationship to Fascism

- 1922 Fascist Party led by Mussolini takes over power in Italy
  - Mussolini professes admiration for Pareto
  - 1922 Pareto agrees to represent Italy to League of Nations
  - 1923 Pareto appointed Senator of the Kingdom of Italy
  - 1923 two articles in *Gerarchia*
    - “expresses a certain degree of sympathy for fascism”
    - “but specifies that it must be liberal” (Aron II)
- 1923 dies on 19 August
Vilfredo Pareto 1848–1923

Relationship to Marxism

- Pareto has studied Marx (not sure for Durkheim or Weber)
  - 1902 *Socialist Systems*
  - Marx’s *economic* theory of value, exploitation, etc. makes no sense
  - Marx’s *sociology* is much better, but
    - class struggle consists of conflict between two elites
    - revolutionary elites always present their cause as cause of people as a whole
    - once in power they become themselves oppressors
    - this circulation of elites will not stop with proletarian revolution, as Marx believes
  - in one of his last articles Pareto argues Marxism should be taught in Italian universities
Pareto’s work can be divided into two parts (Schumpeter)

- Psychosocial Schema
  - economics & logical (=rational) actions
  - typology of actions
  - fundamental hypothesis
  - residues & derivations

- Morphological Schema
  - distribution of income
  - social structure
  - circulation of elites
  - social system
Psychosocial Schema
Economics & Logical Actions

From Pareto’s work in microeconomics
- Edgeworth assumes individual utility
- derives indifference curves (Edgeworth box)
- points represent different combinations of bread & wine
- individual always tries to climb up the “pleasure hill”

Indifference curves of an individual for bread & wine
From Pareto's work in economics (cont’d)

- Pareto: “utility” ambiguous, misleading connotations
- no need to assume cardinal utility, only preference ordering
- adopts purely subjective definition, calls it *ophelimity*
- indifference curves are the primitive notion
- ophelimity derives from indifference curves, not the other way around
From Paretos work in economics (cont’d)

- using two boxes, one for each individual A & B
- obtain representation called Edgeworth-Bowley box
- can show what combinations of goods A & B will voluntarily exchange
- set of all such combinations called *Pareto frontier*
- can derive exchange without comparing individual utilities
- *Pareto optimum* is state of society such that no one can be made better off (greater ophelimity) without making someone else worse off (lower ophelimity)
- only “optimum” concept that does not compare individual utilities
Psychosocial Schema
Typology of Actions

- Economic roots of Pareto’s typology of actions
  - economic action is prototy`pe of logical action
  - e.g. merchant buying stock when expects price to rise
  - today called rational action
  - logical action defined as one logically linked to goal, both
    - subjectively (from the point of view of actor), and
    - objectively (from point of view of outside observer with broader knowledge)
  - other actions are non logical
Psychosocial Schema

Typology of Actions

- **O** = action objectively linked to goal (result)
- **S** = action subjectively linked to goal

<table>
<thead>
<tr>
<th>Type of action</th>
<th>O</th>
<th>S</th>
<th>O=S?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Logical</td>
<td>+</td>
<td>+</td>
<td>O=S</td>
</tr>
<tr>
<td>Non-logical 1</td>
<td>−</td>
<td>−</td>
<td></td>
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<tr>
<td>Non-logical 2</td>
<td>−</td>
<td>+</td>
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<tr>
<td>Non-logical 3</td>
<td>+</td>
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</tr>
<tr>
<td>Non-logical 4</td>
<td>+</td>
<td>+</td>
<td>O≠S</td>
</tr>
</tbody>
</table>

- examples of non-logical actions
  - type 1: some customs
  - type 3: reflexes
  - type 2: magic ritual, e.g. sacrifice to Poseidon for safe sailing
  - type 4: action with unintended consequences, e.g. Bolshevik revolution ends up in dictatorship

- Pareto recognizes notion of “objective” link itself function of progress of knowledge
Psychosocial Schema
Sociology is Study of Non-logical Actions

- Study of non-logical actions
  - economics is the study of repeated logical actions
  - it is often successful in predicting economic behavior
  - the rational model of economics (maximization of subjective utility) is powerless in explaining non-logical actions
  - the study of non-logical actions is a task of sociology
  - but how does one study non-logical actions?
  - two observable aspects of non-logical actions
    - actions themselves
    - reasonings used to explain/justify actions
  - e.g.
    - act: act of military heroism
    - reasoning: warrior dying sword in hand enters Walhalla
Psychosocial Schema
Residues & Derivations

- Pareto’s method
  - analyze a large number of actions (A) with the reasonings used to explain them (D)
  - use a kind of informal “content analysis”
  - find constant elements; these are residues (O)
  - variable elements are derivations (D)
  - e.g. prohibition of homicide (O) justified in many different ways (D)
Psychosocial Schema

Residues & Derivations

- Pareto’s method (cont’d)
  - often assumed D→A (reasons given (D) are cause of action (A))
  - but implausible
    - findings of neuropsychology
    - part of the brain rationalizes actions motivated by other part of the brain
  - A→D slightly more plausible
  - most likely O→A & O→D
  - residues produce both A & D
Psychosocial Schema
Residues & Derivations

What are residues?
- residues O may reflect certain instincts
- derivations correspond to work of the mind to explain O
- residues do not include all instincts; only the ones producing derivations
- because of the way residues are obtained from derivations
- excludes appetites, tastes, inclinations, self-interest
Pareto distinguishes 6 classes of residues
1. instinct of combinations
2. persistence of aggregates
3. need to manifest sentiments by external acts
4. residues related to sociability
5. integrity of individual & dependents
6. sexual residuals
The first 2 classes of residues are the most important

1. instinct of combinations
   ▶ tendency to establish relationships among ideas & things, to elaborate theories & logical developments of all kinds
   ▶ basis of magic as well as science

2. persistence of aggregates
   ▶ almost the opposite of the first class
   ▶ tendency to inertia, opposition to change, maintenance of aggregates, i.e. ideas or things that have already been linked together

Pareto will use the first 2 classes in model of circulation of elites
Psychosocial Schema
Residues & Derivations

- the 4 classes of derivations
  1. affirmation – no justification other than personality of the one affirming
  2. authority – argument of authority based on one or more men, tradition, abstract entity,…
  3. agreement with sentiments or principles – reasonings appealing to sentiments, individual or collective interest, legal principles,…
  4. verbal proofs – pseudo-logical demonstrations using loaded terms, ambiguities, metaphors, abstract terms with no concrete referent,…

- note correspondence of first 3 classes with Max Weber’s charismatic, traditional, & legal modes of domination
Morphological Schema
From Income Distribution to Social Mobility to Circulation of Elites

- one can trace Pareto’s developing vision of social structure
  - discovery of regular shape of distribution of income in societies
  - developing mathematical formula for this distribution
  - distribution of income as model of social structure
    (distribution of political power, privilege, ...)
  - individuals move up & down within this structure
  - social mobility corresponds to selection process
  - elites too circulate, aristocracies do not last
  - elite replacement occurs slowly or through violent revolution
  - this cycle will not end; revolution are always led by new elites
### Table 1
Reverse Cumulative Distribution of Income in Great Britain and Ireland for Years 1893 to 1894

| Income (£) | \( \log x \) | Great Britain | | Ireland |
|---|---|---|---|
| 150 | 2.18 | 400,648 | 5.60 | 17,717 | 4.25 |
| 200 | 2.30 | 234,985 | 5.37 | 9,365 | 3.97 |
| 300 | 2.48 | 121,996 | 5.09 | 4,592 | 3.66 |
| 400 | 2.60 | 74,041 | 4.87 | 2,684 | 3.43 |
| 500 | 2.70 | 54,419 | 4.74 | 1,898 | 3.28 |
| 600 | 2.78 | 42,072 | 4.62 | 1,428 | 3.15 |
| 700 | 2.85 | 34,269 | 4.53 | 1,104 | 3.04 |
| 800 | 2.90 | 29,311 | 4.47 | 940 | 2.97 |
| 900 | 2.95 | 25,533 | 4.40 | 771 | 2.89 |
| 1,000 | 3.00 | 22,896 | 4.36 | 684 | 2.84 |
| 2,000 | 3.30 | 9,880 | 3.99 | 271 | 2.43 |
| 3,000 | 3.48 | 6,069 | 3.78 | 142 | 2.15 |
| 4,000 | 3.60 | 4,161 | 3.62 | 88 | 1.94 |
| 5,000 | 3.70 | 3,081 | 3.49 | 68 | 1.83 |
| 10,000 | 4.00 | 1,104 | 3.04 | 22 | 1.34 |

Note: Income in £ \( x \) and number of incomes greater than \( x \) \( N \).
Source: Data from Pareto (1897, §958).
Morphological Schema
Pattern in Income Distribution

Figure 1
Comparison of the Reverse Cumulative Distributions of Income for Great Britain and Ireland, 1893 to 1894. Plot of $\log_{10} N$ (number of incomes greater than $x$) Against $\log_{10} x$ (income in £)

- Pareto tinkers with income distributions
  - log-log plots of income distributions is straight line
  - same pattern for contemporaray England & Peru in 1600s
  - like “crystals of the same substance”
  - different sizes but same shape

Plot of $\log N \times \log x$ falls on straight line

Source: Redrawn from Pareto (1897, §958, Figure 47). See Table 1 for data.
Morphological Schema

Shape of Income Distribution

Pareto discovers the *Pareto distribution*

- from log-log plot to shape of income distribution
- shown with income going from low to high on vertical axis
- is like a representation of the “social pyramid”
Morphological Schema

Shape of Income Distribution

Figure 3
Comparison of Income Distribution in Classical Antiquity (I) and a Modern Industrial Society (II)

- upper part of income distribution tapered
- bottom part variable
  - in ancient societies bottom flat
  - in modern societies bottom tapered

Source: Modified from Pareto (1909, p. 386, Figure 56).
Morphological Schema

Social Mobility

- Within the social pyramid
  - individuals constantly moving up or down
  - even in most rigid caste societies there is some movement
  - mobility function of individual qualities
  - but mobility not perfect
  - actual movement results from
    - individual qualities
    - disposition of obstacles to mobility
- social selection
  - weak at bottom: even talented elements held back
  - weak at top: incapable elements protected
  - strongest in middle of distribution
Morphological Schema

Elite & Non-elite

- In famous Pareto text
  - Score individuals in each branch of human activity
  - On a scale from 0 to 10
  - Rating success of lawyers, poets, women in seducing powerful men, etc.
  - Top scorers are the elite
  - Members of elite participating in government constitute the governing elite
  - Long lasting governing elite is an aristocracy
  - Elite always contains members who “shouldn’t be there”
Morphological Schema
Circulation of Elites

- In all societies
  - children of aristocracy do not inherit qualities of forebears
  - “History is a graveyard of aristocracies”
  - usually elite is slowly changing
  - able elements from lower stratum rise to join elite
  - incapable elements sink down into non-elite
  - this is the *circulation of the elite*
  - system stability compromised when circulation of elite is defective, so that
    - low-quality elements accumulate in elite
    - high-quality elements in non-elite are prevented from rising
    - elements with qualities other than those needed to maintain themselves in power accumulate in elite
Morphological Schema
Circulation of Elites

- When circulation of elite compromised
  - nominal elite accumulates elements who do not have qualities required to maintain themselves in power
  - revolution takes place
  - typically led by disaffected members of old elite
  - derivations (ideology) of revolutionary movement presents cause as that of entire people
  - once revolution succeeds
    - victorious revolutionary leaders become the new elite
    - start oppressing non-elite in their turn
Morphological Schema
Link With Thypology of Residues

- Historical/economic circumstances
  - affect kinds of elements recruited into elite
  - when economy is growing rapidly, elite recruits many members with Type I residues (instinct of combination)
  - in wartime elements with Type II residues (persistence of aggregates) rise into elite
  - accumulation of too many Type I elements may weaken elite, as it loses willingness to use force
  - producing cyclical fluctuations in nature of elite
Morphological Schema
Topic for Discussion

- About video *Red Flag* on the Russian Revolution and aftermath
  - at the time they were writing neither Marx nor Pareto (whose *Treatise* came out 1916) knew the actual Russian Revolution of 1917
  - Marx gives an account of the proletarian revolution that he thought would one day overthrow capitalism
  - Pareto describes revolutions in general as violent episodes of replacement of one governing elite by another
  - one can view the Russian Revolution as a “natural experiment” that “tests” Marx’s and Pareto’s theories
  - Which perspective (Marx’s or Pareto’s) gives a better account of the Russian Revolution and its aftermath?