## Notes for Week 7 (March 3, 2010)

Discussion on "Postscript on the Societies of Control" by Gilles Deleuze

- Deleuze reacts to Foucault's disciplinary society
  - Sovereignty → discipline → control
    - Deleuze's society of control is similar to Foucault's biopower.
  - The control society appears to be a new epoch
- Contrasts of the Modes of Being (discipline; control)
  - Fixed modes; changing modes
  - o Contained; open
  - o Discrete; continuous
  - Factory; corporation
    - Entities are now systems that go beyond their physical correlates. For example, we have a hospital system, not simply multiple hospitals
    - Corporations can rapidly reorganize its operations
      - Ford makes their own audio equipment
      - General Motors makes revenue from financing
      - General Electric makes home appliances and owns NBC/Universal
    - The key is diversification
    - Corporations are obliged to maximize profits for their shareholders
      - They have the status, but not the accountability, of an individual
  - o Mold; modulation
    - "Modulation" is akin to a self-deforming cast
  - o Signature-number; code
  - Racing; surfing
    - Racing gives the drivers and his pit crew a lot of precision over his movements, and races have very clear winners. Conversely, surfers do not have direct control over the waves and the metrics for winning are less clear
  - Mole; serpent
    - The serpent moves much more fluidly
- This parallels a shift from the *modern* to the *postmodern*

 Discipline promoted *efficiency* wheareas control features adaptability and reconfiguration

Frederick Taylor's The Principles of Scientific Management

- The *Efficiency Movement* (c.1890 1932)
  - Advocates pushed for finding the *one best way* to solve every problem
  - The movement was supported by the likes of Herbert Hoover and JD Rockefeller
  - For example, we often consider the *optimal route* for getting somewhere
    - Is the shortest path the optimal path? Not necessarily, there are other factors
    - Less crowded paths
    - Safer paths
    - Paths that respect the laws and others' property rights
- According to Frederick Taylor, you can figure out and implement the optimal level of productivity for all employees
  - "Humanpower" can be measured just like horsepower and there are mathematical laws to prove it
  - Example: an overloaded workers gets tired even when not moving
    - Taylor's mathematician figured out that a worker should be idle for 52% of the day. Supervisors must strictly enforce rest time.
- Employees can be controlled to act efficiently without question
- Taylor frames his discussions to be scientific
  - In the past, Taylor says, behavior was governed by *rule of thumb*. The rule of thumb draws a parallel to the
     *apprenticeship* model
    - It isn't precise, but it may work well for the individual
  - "Every single act of every worker can be reduced to a science." The constituent parts of each activity can be optimized.

- Ironically, Taylor primarily bases his argument on anecdotes and hypothetical scenarios. Taylor does not present and theory or law to unite and explain his concepts.
  - Example: "The optimal wage increase is 60%." How could Taylor ever justify this statement as a law?
  - Additionally, Taylor seems to act as if all workers are identical, interchangeable and machine-like.
  - In fact, Taylor presupposed that the workers in question will be exceptionally stupid.
- Topical Tangent: Mario Savio protested in 1964 that Berkeley students were being treated as machines.
- Taylor discusses "breaking the workman" as individuals, not as groups or gangs. However, this method is also standardized
  - Soldiering is the deliberate act of underworking
    - People tend to figure out the minimum accepted level of productivity
    - If people are on salary, that communicates a benefit of the doubt on the employer's part. Ironically, people are often less productive when their work is more closely monitored
- Taylor makes the glaring (yet unsurprising) omission of giving workers an ownership stake in the company

## Motion Study and The Easier Way

- "A little motion study around the house would help your housework."
- Method is a more important factor than Worker

## Quantity vs. Quality

- Quality is the accuracy of inspection, not simply the number of inspections made
- Example: SixSigma
  - Having less than one defect per million products. How does one achieve that level of consistency? The *rule of thumb* will not be conducive to this standard

 Quality then shifts from uniqueness of product to uniformity of product (the use of the word is turned around)

## Post-Break Subjects

- Ergonomics is the "science of work"
  - Fitting the environment to the people, not the other way around.
- The *Hawthorne Effect*: In productivity experiments, the knowledge of being monitored may cause increased production, skewing results.
- Dreyfuss' The Measure of Man (a reference book for human motion) had a large impact on the design of computer products
- Paul Fitts analyzed the tradeoffs in speed and accuracy, and determined Fitts' Law
  - There is an alternative law that uses a square root instead of a logarithm
  - These laws have been implemented in computer interfaces
- Background information on Taylor
  - Taylor was fired from the Bethlehem Steel Company in 1901;
    Andrew Carnegie disliked scientific management
  - The backlash against Taylor was substantial, he put workers under enormous strain
  - Unions called Taylor's methods of employee observation "a spy system"
- In contrast, the Gilbreths were much more humanist
  - studied the science of bricklaying.
  - They had 12 children and applied their motion studies to their own household.
  - Introduced ambidexterity to bricklaying, special scaffolding to reduce lifting
  - Reduced the number of motions for a bricklayer from 18 to 5 (and sometimes just 2).
  - Also came up with a way to keep track of the number of bricks a bricklayer laid.
  - Gilbreth emphasized motion, whereas Taylor emphasized time.

- **"Therblig"** (Gilbreth spelled backward (almost)), a step of worker motion.
- Standardization is the same response to every situation
- *Specialization* is the specific assignments of tasks so that performance will be refined.