IIPPE Training Workshop in Marxist Political Economy

Session 2: Capital, Surplus-Value, Exploitation and Accumulation

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Reading

- In my opinion, the best general texts on Marx's *Capital* are
  - Duncan K. Foley (1986), *Understanding Capital*, Cambridge Mass and London UK: Harvard University Press
  - Michael Heinrich (2004), *An Introduction to the Three Volumes of Karl Marx's Capital*, New York: Monthly Review Press
- Both put forward particular perspectives, which I think are the most helpful in understanding Marx
- But there is a huge literature, offering a wide variety of other perspectives
- There is no substitute for making up your own mind
- This talk taken almost entirely from Foley (often closely)

Structure of Knowledge

- Basic elements: abstractions or determinations
  - ways of talking about aspects of reality separated from and purified of whole complex of factors that make up a concrete instance
  - to understand historical specificity of CMP: value, labour, money, commodity
    - cf neoclassical economics: to understand resource allocation in any society: tastes, technology, resources and endowments, the market
  - layered or ordered: concrete to abstract, then abstract to concrete
  - starting point important in establishing meaning
    - same determinations appear in different theories with different significance because of different relation to whole structure
      - Eg equalisation of rate of profit
        - » Marx: deviation of money price of commodities from their labour values and redistribution of surplus-value through exchange
        - » neoclassical economics: core of the idea of efficiency achieved by competitive markets

Conservation Principles

- In any science, fundamental determinations often appear as conservation principles that apply to whole system. Eg LTV:
  - in whole system of commodity production, value is produced by labour and conserved in exchange
- Implies factors governing production of value are quite different from those governing its distribution
- Marx often not explicit about level of aggregation
  - frequently explains aggregate behaviour of a system by discussing a typical or average element of it
    - eg 1st 3 chs. of CI: laws that apply to a typical or average commodity, meaning the aggregate of all social production. Most unlikely to apply to any real commodity with all its peculiarities
    - eg whole of CI: written in terms of a typical or average capital, meaning aggregate capital (or scale model of aggregate capital)
- Fundamental determinations generally show themselves in aggregate or average behaviour of a system

Fundamental Determinations and Later Determinations

- Layered determinations of theory to recreate concrete phenomenon
- What if later determinations produce phenomena that appear to contradict the fundamental determinations?
  - Eg equalisation of rate of profit through redistribution of surplus-value in exchange obscures fundamental determination that labour produces value and surplus-value is unpaid labour, because surplus-value appropriated by an individual firm will not in general correspond to the surplus-value created in that firm
- Only an apparent contradiction as long as the explanation is consistent with the structure of the theory. Then fundamental determinations continue to be valid and to operate in the more complex situation
  - law of gravity does not mean the Shard is impossible
  - construction of Shard depends on understanding how law of gravity works

Self-Determination and Tautology

- Abstractions constituting a theory define each other
  - cannot understand them outside the system comprising all of them
    - what is value?
      - the form labour takes in a commodity-producing society
    - what is abstract labour?
      - the aspect of labour in a commodity-producing society that produces value
  - set of ideas concerning value comprise a self-determined system
    - circular? tautological? Hegelian development of categories?
    - Marx's warning against excessively Hegelian mode of presentation in which structure of ideas constructs itself
  - all theories (including those of physical sciences) have this self-determined character

Testing a Theory

- How can a theory be tested?
  - articulation of the concepts developed must be coherent and logical
  - this development must not be arbitrary or ad hoc
  - self-determined articulation must correspond to and illuminate some class of real phenomena
- Theory becomes tautological only if we invoke *ad hoc* principles to save the fundamental determinations in the face of real anomalies
- The most important scientific statements about the world are
  - neither tautologies
  - nor statements of empirical fact
  - but helpful theoretical relations that
    - are self-determined
    - illuminate a fundamental relation in the world

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Explanation and Prediction

- Basic activity of science lies in explaining phenomena
- What is a good explanation of something?
  - locating the phenomenon in terms of the ordered set of determinations constituting the theory so that
    - the phenomenon is reproduced by the combination of the determinations of the theory
    - the fundamental determinations continue to operate
- In this sense, reality is determined: after-the-fact explicable in terms of a scientific theory
- Marx sometimes refers to this necessity as 'inevitability'
- Does not mean the future is predetermined
  - after something has happened, all of its determinations have occurred
  - in the future no way of knowing all the determinations that will be active, even if we believe we know some of them

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Basic Structure of Marx's Theory

- Consider societies in which production is organised through exchange
- Special laws (ie fundamental determinations) arise in such societies, pertaining to dual nature of exchanged products (commodities)
  - use-value (like all useful products in any society)
  - value or power to be exchanged with other commodities (unique to commodity production)
    - value is created by labour
    - appears in the form of money (which is value separated from any particular commodity)
- LTV: source of value added of the total mass of commodities produced is the labour expended in producing them

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Marx's Corrections of Ricardo

- Concept of labour refined to make LTV consistent: labour that produces value is
  - abstract rather than concrete
  - simple rather than compound
  - social rather than private
  - necessary rather than wasted
- Location of LTV is at level of aggregate production of commodities (or the average commodity), and not in each particular commodity
- Money value added = labour value added ÷ value of money. This conservation principle enables answers to 2 questions:
  - how much labour time does a £ represent?
    [value of money = labour value added ÷ money value added]
  - how much value in £ does an hour of labour time create?
    [monetary expression of labour-time, or melt = 1/value of money]

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Digression: Prices and Values I

- Technology (in terms of per unit of output):
  - direct labour L_1 working with means of production
  - these means of production were produced one period previously, and only with direct labour L_2.
- For capitalist
  - advance wL_2 at beginning of previous period
  - earning $wL_2(1+r)$ at end of that period
  - advance $wL_1 + wL_2(1 + r)$ at beginning of current period
  - earning $[wL_1 + wL_2(1 + r)](1 + r)$ at end of current period
- 2 production processes using this technology, one producing commodity A, the other producing commodity B
- Competition equalises rate of profit between the 2 processes
- Each requires identical amount of total labour, so that

  $L_A = L_{A1} + L_{A2}$ and $L_B = L_{B1} + L_{B2}$

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Digression: Prices and Values II

- Prices:

$$p_A = (1+r)\left[wL_{A1} + (1+r)wL_{A2}\right]$$
$$p_B = (1+r)\left[wL_{B1} + (1+r)wL_{B2}\right]$$

- LTV (a la Ricardo):

$$\frac{L_A}{L_B} = \frac{p_A}{p_B}, \quad \text{or} \quad \frac{L_{A1}+L_{A2}}{L_{B1}+L_{B2}} = \frac{L_{A1}+(1+r)L_{A2}}{L_{B1}+(1+r)L_{B2}}$$

- Under what conditions does LTV hold? LHS has to equal RHS. How so?
  - $r = 0$
    not a capitalist society
  - time structure of labour embodied identical for A and B

$$\frac{L_{A2}}{L_{A1}} = \frac{L_{B2}}{L_{B1}}$$

in general this will not be true: ratios of means of production to labour (whether in use-value or value terms) will be different

$$\text{RHS} = \frac{L_{A1}+(1+r)L_{A2}}{L_{B1}+(1+r)L_{B2}} = \frac{L_{A1}\left[1+(1+r)\frac{L_{A2}}{L_{A1}}\right]}{L_{B1}\left[1+(1+r)\frac{L_{B2}}{L_{B1}}\right]}$$

$$\text{LHS} = \frac{L_{A1}+L_{A2}}{L_{B1}+L_{B2}} = \frac{L_{A1}\left[1+\frac{L_{A2}}{L_{A1}}\right]}{L_{B1}\left[1+\frac{L_{B2}}{L_{B1}}\right]}$$

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Digression: Prices and Values III

- Ratios of non-labour to labour inputs vary a great deal
  - highly mechanized almost completely automated technologies employing very little labour
  - very labour-intensive technologies employing a lot of labour
- So prices at which each firm would earn the same rate of profit cannot be prices-proportional-to-values.
- Hence capitalist exchange (except under very special analytical assumptions) *must* be non-equivalent exchange.
- Prices are forms of value but in systematic unequal exchange
  - entails that *value is realized at prices (that equalise the rate of profit) in different sectors from where it was produced*
  - so competition redistributes value among the sectors of commodity production
- None of this affects value added in the aggregate

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Origin of Profit I

- Capitalist firms operate to make a profit
  - sell commodities for more £ than they pay for inputs to produce them
  - over whole system, appropriate a surplus-value
  - can LTV explain this?
- C – M – C'
  - system of independent producers
  - C and C' are different use-values
  - one-off process that ends with consumption of desired use-values
  - in value terms C = C'
    - if one producer succeeds in buying cheap and selling dear, so that in value terms C' > C, some other producer has lost out. In aggregate no social surplus-value
  - no systematic process of accumulation

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Origin of Profit II

- M – C – M': money that makes more money: capital
- M – C{LP, MP}…..P…..C' – M' = M + ΔM circuit of capital
  - capitalist production as we observe it
  - M and M' are identical use-values
  - M and M' are different values: ΔM = surplus-value
  - process recreates its initial conditions, hence repeats indefinitely
  - conservation of value in exchange ⇒ change in value occurs in P
  - ⇒ there is some commodity that has the power of creating value as it is used up, and more value than it itself possesses
  - LTV: this value-creating commodity is the capacity of workers to do useful work; ie labour-power
  - capitalist purchases labour-power at its value for a wage
    - worker has no claim to any part of product or value of product
    - further negotiation: how hard the work, how fast, how safe etc

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Origin of Profit III

- Historical conditions for emergence of LP as commodity: 2-fold liberation
  - worker must be free to sell LP, not tied to particular labour process (feudalism) or to particular master (slavery). Hence historical destruction of previous modes of production
  - worker must be 'freed' from access to means of production that would allow her not to sell her LP but to produce a commodity she could sell. Hence worker
    - cannot exercise LP on her own behalf
    - is therefore forced to sell LP to gain £ to access consumer goods
- Most important aspect of this process
  - displacement of peasants from traditional access to land
    - enclosures
    - land reforms
    - green revolutions etc

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Value of Labour-Power I

- [Ass'n A] Assuming LP exchanges at its value, capitalist buys LP for £, the wage, or the price of LP

  price of LP per hour = vlp per hour of labour hired ÷ value of money

  so that

  vlp = [wage]*[value of money]
- [Ass'n B1] Assuming all other goods exchange at their values, prices of goods bought with the wage (wage-bundle of commodities) are similarly proportional to their values

  so that, per hour,

  wage-bundle in £ = wage-bundle in SNLT ÷ value of money
- [Ass'n B2] Wage earners do not save
- Then

  vlp = wage-bundle in SNLT

  So vlp is value of consumption goods necessary to (re)produce LP

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Value of Labour-Power II

- While assumption B2 might or might not hold, assumption B1 definitely does not hold. But no reason not to maintain ass'n A:

  vlp per hour of labour hired = [wage rate]*[value of money]
- Since value of money = labour value added ÷ £value added

  [from slide 9], then

  then

  vlp per hour of labour hired

  = [wage rate]*[labour value added ÷ £value added]

  = wage share of £value added
- So vlp measures proportion of total money value added that a worker receives in exchange for an hour of her labour-power
- Proportion that worker does not receive is due to her exploitation
  - the ratio of these proportions is the rate of surplus-value (e)

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Rate of Surplus-value

- Wage is £ advanced by capitalist
- Wage received by worker is £, not claim on capitalist's product
- Workers as class spend wages to buy portion of product
- So £ value added [£VA] is split between
  - what workers receive in form of wages
  - £ surplus-value [£SV] accruing to capitalists
- Rate of surplus-value (e) = £SV ÷ Wages
- Since £VA = Wages + £SV, 1 = vlp + (£SV ÷ £VA) so that
  1 – vlp = (£SV ÷ £VA)
  then

$$e = (1 - vlp) \div vlp$$
$$vlp = 1 \div (1 + e)$$
$$vlp < 1 \leftrightarrow e > 0$$

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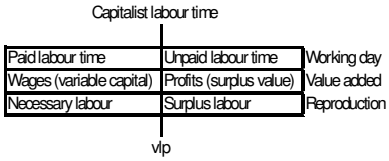
Surplus-value and Unpaid Labour I

- Metaphor: whole of social labour time = "working day" =
  - no. of hours of social labour expended in production
  - £value added (conservation principle)
- vlp represents less than 1 hour of social labour time equivalent, received by workers, per hour of labour expended
- So vlp divides working day
  - as time into paid and unpaid labour
  - as £value added into wages and surplus-value



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Surplus-value and Unpaid Labour II

- surplus-value = unpaid labour time
  - does *not* mean workers work some hours for zero wages
    - every hour of labour-power is paid for in sense that worker receives hourly vlp (whether for the 1st hour of the day or the last hour)
    - not every hour of labour is paid for, because vlp < 1
- Eg:
  - average wage rate = £8 per hour
  - value of money = 1/16 hour per £ (so that melt {slide 9} = £16 per hour)
  - vlp = [8]*[1/16] =1/2 hour of social labour per hr of lp sold
  - in 10 hour day, average worker produces [10 hours]*[£16 per hour] = £160 in value added, and receives [10]*[8] = £80 in wages
  - so workers receive equivalent of 5 hours of social labour per day, and work for 5 hours for nothing, producing surplus-value
  - every hour of labour-power is paid for at the average wage rate
- Wage labour form obscures what is happening

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Surplus-value and Unpaid Labour III

- Extraction of surplus labour = exploitation
  - characteristic of all class societies
  - class societies differ only with respect to the form that this extraction takes (slavery, feudal, capitalist)
- Could exploitation be ended by a sufficient rise in wages?
  - if vlp = 1, all value added accrues to labour and no surplus-value
    - but no surplus product either; nothing for
      - investment (and hence expansion of productive resources)
      - healthcare, education, pensions, care (and hence all social needs)
- Any society (of any interest) has to produce a surplus product
  - issue is the way in which it is produced and distributed: class exploitation vs. democratic control by the direct producers
- Much polemic by Marx on need to end wages system rather than increase wages
  - ending exploitation → ending wage labour form of production

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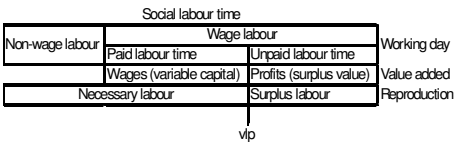
Surplus-value and Unpaid Labour IV

- Commodity relations are not in fact the only processes in the reproduction of capitalist society
- Important part of social reproduction lies outside capitalist relations of production
  - developed societies:
    - household production and domestic labour
    - social consumption
  - less developed societies: traditional peasant production
- Hence modify Marx's division of working day



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Labour-power as a Commodity

- Is labour-power a commodity like any other commodity?
  - yes: capitalist only interested in its cost and value it can produce
  - no: after wage bargain is struck, continues to be conflict over intensity and conditions of work
  - most important: no: produced under very different relations of production from any other commodity
- vlp = value of wage bundle of commodities?
  - no; assumes equal exchange which in general is not true
  - workers will end up consuming more or less labour time in commodities than the equivalent of the wage, depending on whether they gain or lose from unequal exchange
- vlp = amount of social labour workers receive a claim to in the wage for each hour they actually work (w*vm)
- Long run: vlp = cost of maintaining av. social standard of living

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Constant and Variable Capital

- Capitalist advances capital to buy
  - labour-power (lp)
  - nonlabour means of production (mp)
- Both necessary for profitable production, but social significance very different
  - mp
    - value appears unchanged in final product
    - value of mp used up in production and transferred by concrete labour to final product
    - advance to buy mp (value of mp) called constant capital (*c*)
  - lp
    - vlp consumed in production process, and labour produces
      - value equivalent to vlp
      - surplus-value, so that value of labour > vlp
    - advance to buy lp (value of all lp hired) called variable capital (*v*)

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Fixed and Circulating Capital

- Fixed capital: capital tied up in long-lived mp (value of machinery, buildings and equipment)
- Circulating capital: capital that turns over rapidly in production (wages and value of raw materials)
- Important not to confuse these with constant and variable capital
  - constant capital c =
    depreciation of stock of fixed capital
    +
    purchases of rapidly used up nonlabour inputs
  - variable capital v =
    wages

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Some Summary Relations Between the Concepts

- Total value produced = $c + v + s$
- Value added = $v + s$
  - in SNLT: total hours hired H
  - in £: y
- y = $H \div vm$ so that $vm = H \div y$ and $(1 \div vm) = y \div H$
- $vlp = w^*vm = wH \div y$
- $v = [vlp]^*[H]$
- Rate of surplus-value (rate of exploitation) = $s \div v$
- Mark-up on costs: $q = s \div (c + v)$
- Proportion of each £ of total capital advanced that actually expands in production process = v ÷ (*c* + *v*). Call it *k*
  - notice that $(1 - k) \div k = c \div v$
- Identity: $q = ek$

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Summary So Far I

- In aggregate, commodities exchange at values (value conserved in exchange)
- Labour-power: what capitalists purchase
- Labour: what capitalists receive
- Surplus-value requires vlp < 1
- Labour-power a commodity when
  - workers free to sell their lp
  - workers have no access to mp
- Surplus-value the result of exploitation
  - workers work more hours than they receive an equivalent for in the form of the wage
- Apparent equality of all property owners in the market conceals private appropriation of social surplus product by particular class
  - form of this exploitation (selling of lp for a wage) is the specific characteristic of capitalist production

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Summary So Far II

- Rest of Marx's work:
  - application of this theory to explain actual phenomena of capitalist development

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Absolute and Relative Surplus-value

- Amount of social surplus-value depends on
  - total social labour time
  - partitioning of that time between paid and unpaid labour (determined by vlp)
- To increase social surplus-value
  - increase total social labour time, holding paid labour time constant
    - called absolute surplus-value
    - arises because, given means of subsistence necessary to maintain standard of living, workers can physically provide more or less labour time to social production
      - class struggle: how much labour time extracted in exchange for wage?
  - reduce that part of total social labour time that is paid, holding total labour time constant
    - called relative surplus-value
    - arises because, given standard of living, labour time required to produce consumer goods in this standard of living falls (via technical changes that increase labour productivity)

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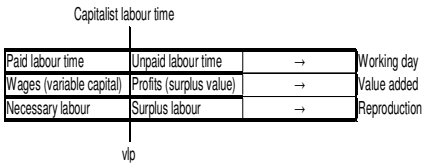
Absolute Surplus-value I



- Forms of absolute surplus-value
  - lengthen working day
  - fill in 'holes' in working day
  - family labour

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Absolute Surplus-value II

- Lengthen working day
  - does not decrease effectiveness of workers very much
  - does not increase means of subsistence workers require very much
  - absolute limit when workers exhausted/inattentive: productivity falls
  - eventually state regulation: norms and capitalist fines for exceeding norm (eg premium payments for overtime)
  - prior to this limit: only limit is workers' resistance
    - depends on bargaining power and worker solidarity
    - class struggle over length of working day → growth of trade unions
  - pervasive tendency of early stages of capitalism
  - revival whenever/wherever workers' ability to resist is weak
    - newly industrialising countries
    - to some extent, developed economies whenever
      - » procapitalist antiunion governments
      - » high unemployment

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Absolute Surplus-value III

- Fill in 'holes' in working day
  - continued pressure to reduce unproductive periods within given working day
    - coffee/tea breaks
    - informal socialising
    - rest periods
    - lunch breaks
- Same principle as lengthening working day
  - capitalists seek to maximise unpaid labour time for a given wage

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Absolute Surplus-value IV

- Family labour
  - wage = source for subsistence for worker *plus family*
  - if wage is paid to family, then capitalists want as much social labour time as possible in exchange
  - employing women and children gets a more than proportionate increase in social labour time relative to payment of wage – hence production of absolute surplus-value
- Campaigns to abolish exploitation of women and children were often linked to campaigns to limit length of working day
  - bargain between male unions and male employers
    - restrictions on employment of women and children to protect family
  - 'protective' legislation later dismantled
    - important source of sexual inequality eliminated
    - pressures to expand social labour time supplied by family
    - emergence of 2-income family as social norm

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Relative Surplus-value I

- Capitalist production inherently dynamic as new methods of production developed and older ones scrapped
- Why? Competition as war fought through productivity rises
  - innovation (often involving larger scale of production) enables more use-values to be produced in given period of time
  - in given period of time, total value produced is constant
  - so value of each individual use-value falls
  - innovating capitalist can
    - undercut rivals and expand market share
    - gain extra profits through unequal exchange until innovation generalised across competitors
- Cost-reducing innovations can be applied in any area of production and to any costs
- Marx paid particular attention to labour-economising innovations

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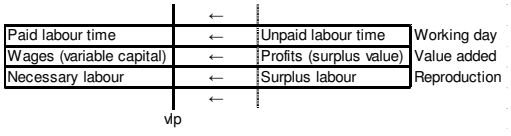
Relative Surplus-value II



- *vlp* regulated by snlt required to produce commodities necessary for workers to maintain average standard of living
- Reduction in snlt required to produce these commodities reduces *vlp* and increases *e*

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Relative Surplus-value III

- Does not necessarily mean a fall in wages
  - productivity increases can lead to
    - increases in number of use-values consumed by workers (ie real wage rises)

    at same time as
    - fall in *v*/*p*
  - eg Fordism
    - conscious choice of US capitalists in early 20C to increase wages (and hence workers' standard of living) in newly developed continuous line processes (Henry Ford at Dearborn, MI)
    - why?
      - to create a mass market for consumer durables

      and
      - because productivity increases > wage increases, *e* increased

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Relative Surplus-value: An Example

- Suppose price of widgets p_w accurately reflects labour embodied in it.
- Let value of widgets be λ_w so that $p_w = \frac{\lambda_w}{vm}$
- Suppose *vm* = 1/20 hour of social labour per £
- To produce a widget requires 1 hour of direct labour, and the other inputs required cost £20, representing an hour of indirect labour
- p_w = £20 (to recover cost of nonlabour inputs) + £20 (1 hr of direct lab) = £40
- Suppose *v*/*p* = ½, so that wage = £10 per hour
- Then surplus-value = £10, and capitalist's costs = £30
- New technique permits widget to be produced in 45 rather than 60 minutes
- Initially, cost of producing widget falls to 20 (nonlabour inputs) + 7.5 (wages) = £27.5, and surplus-value = £12.5
- Innovating capitalist can afford to reduce price, putting pressure on competitors to adopt the new technique
- Price will eventually settle at 20 + 15 (7.5 wages and 7.5 surplus-value) = £35

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Relative Surplus-value: An Example (cont.)

- Mark-up on costs fallen from 10/30 = 0.33 to 7.5/27.5 ≈ 0.27 because v/(c+v) has fallen from 10/30 = 0.33 to 7.5/27.5 ≈ 0.27, [or c/v has risen from 20/10 = 2 to 20/7.5 = 2.67] while *e* remains unchanged
- An hour produces same amount of value as before, but now produces 1.33 widgets
- Suppose widgets are an essential component of standard of living, indeed the only component(!), and standard of living remains constant (and *vm* remains constant)
- Price fall of widget is £5, or (5/40)%, ie 1/8 fall. Then:
  - wage will fall by 1/8 from £10 per hour to £8.75 per hour
  - v/p will fall from ½ to (8.75)*(1/20) ≈ 0.44
  - surplus-value in a widget will rise to £8.44 {= 15 – [0.75*(8.75)]}
  - rate of surplus-value rises from 1 to 1.29
  - mark-up on costs = 0.32 and c/v has risen to 3.05

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Relative Surplus-value: Marx on Technical Progress

- Technical innovations reduce snlt required to produce use-values
- Only benefit is temporary one to innovator, because competition forces prices in the aggregate to reflect values
- Indirect effect of innovation is to cheapen means of subsistence that workers consume
- This allows
  - rise in workers' standard of living

  or
  - fall in *v*/*p* (and hence rise in *e*)

  or
  - some combination of the two (hence some rise in *e*)
- But because v/(c+v) falls [or equivalently c/v rises], after all adjustments have occurred, mark-up on costs s/(c+v) falls

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Absolute and Relative Surplus-value and Unequal Exchange

- Even very large firms are small relative to
  - whole system of capitalist production
  - the division of labour it creates
  - enormous resulting pool of surplus-value in world economy
- So each firm makes negligible contribution to pool of surplus-value through exploitation of its own workers
- Profitability of any firm rests on its ability to secure share of pool of surplus-value through its competitive strategy
- Strategies that increase a firm's share of pool of surplus-value
  - lengthening working day
  - cost-reduction through technical change

  also contribute to enlarging the global pool of surplus-value
  - but contribution any particular firm makes to this pool bound to be small compared to the effects of its competitive strategy on its share of pool

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Dynamism of Capitalism

- Main motive: pursuit of surplus-value
  - absolute surplus-value: extracting more labour with constant wage
  - relative surplus-value: war of competition through innovation;
    - by-product → cost of workers' consumption reduced
- Innovation is means by which forces of production developed
- But class conflict over wages, length of working day, work intensity, health and safety of work environment
- Capitalist needs to maintain control over pace and intensity of work
  - innovations that sacrifice control are problematic
  - most successful innovations are those that
    - increase productivity
    - maintain/increase surveillance and control over labour process
- So forces of production developed by specific capitalist relations of production

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Capitalist Organisation of Production: Cooperation

- Cooperation: workers and their production processes are brought together, without fundamental change in methods of production
- Advantages
  - increased control and surveillance over labour process
  - release of human energy from social interaction
  - saving in shared facilities (buildings, heat etc)
  - some possibilities of joint labour
- Cooperation requires very little specialisation of workers
  - labour is shared
  - workers are functionally interchangeable

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Capitalist Organisation of Production: Manufacture

- Manufacture involves
  - reorganisation of method of production
  - extreme specialisation of workers to particular aspects of production process (division of labour in sense of Adam Smith)
  - workers' skills and tools both highly specialised
- Contrasting divisions of labour
  - in society: regulated by market through exchange of commodities; anarchic, unplanned, *ex post*
  - in factory: regulated by capitalist directly; highly organised, planned, *ex ante*
- Large increase in production possibilities; stunted human dev't
- Problem: specialised workers can organise to monopolise their skills and functions
  - manufacture very vulnerable to disruption

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Capitalist Organisation of Production: Machine Production

- Production using machinery:
  - huge increases in
    - productivity
    - scale of production
    - mechanical power at labour's disposal
  - partial resolution of capitalist difficulties with worker organisation under manufacture
    - specialisation of tasks in manufacture embodied in machines
    - workers become machine-minders, and (fairly) easily moveable from one machine to another
    - easy to train new machine operatives if problems with existing ones
    - hence decline of workers' bargaining power
      - lengthening of working day
      - deterioration in conditions of work
- Characteristics of modern capitalism
  - immensely powerful production possibilities
  - degradation of human potentialities

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Reproduction I

- Reproduction central to Marx's view of how to analyse society
  - to understand the nature of something is to understand how it reproduces itself (or fails to)
  - perspective of reproduction transforms significance of things
- Eg labour-power
  - purchase and sale of labour-power is an instance of commodity exchange between independent commodity owners who meet in the market and strike a bargain
  - reproduction transforms this perspective
    - capitalist owns the commodities produced, realises surplus-value, and can reproduce his activities on larger scale
    - worker's wage enables him to reproduce himself as a worker to sell labour-power again to survive
    - repetition: eventually all capital is accumulated surplus-value

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Reproduction II

- Reproduction of capital ↔ reproduction of class relations of capitalist production
- Analysis of production process: how capital produces surplus-value
- Reproduction: how surplus-value produces capital.
- 3 models:
  - simple reproduction
    - reproduction at same scale; no net investment; just replacement of worn out means of production; all surplus-value consumed
  - expanded reproduction
    - growth of constant and variable capital in identical proportions; wages constant so growth of employment in same proportion as growth in physical means of production; constant *e*; constant composition of capital; constant mark-up on costs
  - accumulation
    - all parameters allowed to change

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Accumulation

- Accumulation transforms processes of production
  - more than recreating on larger scale what currently exists
  - involves new methods of production
  - creates wider market to support
    - deeper social division of labour
    - larger scale plants
    - more mechanisation
- Concentration of capital
  - expansion of scale through growth of individual capitals
- Centralisation of capital
  - expansion of scale through mergers and acquisitions
- These scale transformations are reflected in monetary terms in changes in parameters affecting profitability
  - changes in *e*
  - changes in $v/(c + v)$ [or c/v]

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Accumulation and the Demand for Labour-power

- Accumulation tends to
  - increase the demand for labour-power as expansion of production normally requires more workers
  - displace workers as technical improvements allow smaller amount of labour to produce a given quantity of use-values
- Hence alternation in developed capitalist economies between labour shortage and growing unemployment
- Marx characterises unemployment as a relative surplus population, an industrial reserve army, or reserve army of labour
  - a population surplus relative to capital's average requirements
- Ambiguities: with the expansion of capitalism,
  - working population increases more rapidly than capitalist demand for workers
  - relative surplus population rises, and hence so does poverty

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Components of the Reserve Army of Labour

- Floating reserve army
  - displacement of workers through technical change creates pool of workers who have been employed and need to be employed, but who cannot at present find a job
- Latent reserve army
  - people who reproduce themselves outside of capitalist relations, who can be pulled or pushed into selling their labour-power
    - peasants in traditional agriculture
    - migration from less to more developed economies
      - from Mexico and Caribbean to US
      - from Southern Europe and North Africa to Northern Europe
      - from Turkey to West Germany
    - female labour-power in countries with low female labour force participation rates
- Stagnant reserve army
  - those whose labour-power deteriorates, or whose skills never develop, or whose skills are rendered obsolete [cf hysteresis]
    - exist on margins of social production and organised social life

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Determinants of Wages

- Marx views wages as tending towards the cost of a socially determined subsistence standard of living
- Potential and actual competition from floating and latent components of the reserve army keeps wages from moving very far for any length of time from this socially determined subsistence level
  - in this sense, reserve army of labour regulates wages
- Mechanisms of how socially determined subsistence level is determined (rather than regulated) is a more vexed issue

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