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– Letters from afar

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INCOME INEQUALITY AND THE SERVICE SECTORS

Comparing two socio-economic models.

This paper suggests a simple and intuitive technique for analysing the relation between income distribution and the social division of labour, focussing on service occupations and service provision through the market\(^1\). The analytical tool is "the service labour exchange rate" defined as the number of hours one person can command of the other persons work on the basis of one hour of his/her own work. We use work hours as a “currency” in constructing the analytical tool of this essay, in order to elucidate some consequences of the socially stratified consumption capacity in a given society, that is its income distribution.

The currency of work hours is a conventional way to express living standards when countries are compared. An example is the number of hours an average worker has to work to buy a pound of butter, a shirt or a haircut. This measure has been used primarily as a way to show progress and increasing efficiency in the production of goods over time. We suggest that this measure can be used in explaining major differences between societies, such as the size and the character of their service sectors. The argument in this essay is to show that the size of the income differentials in a given society affect the character and size of its service sectors.

The argument is developed by means of an analysis of the reciprocal relations between three categories of service providers/service users: professionals, craft workers and service workers. These categories are chosen

\(^1\) This article was first written in May 1999 when I was visiting professor at the Department of Sociology, UCLA. Revised in March 2010. Thanks to Ödul Bozkurt (1999) and Ola Agevall (2010) for useful comments. This article is part of a larger manuscript analyzing Sweden and USA/California as models of socio-economic development. Gunnar Olofsson Institutional differentiation, social inequality, social integration: Comparing two Models of Socio-economic Development: Sweden and US/California.
because they represent three characteristic income levels but also because they represent rather pure types of provision of different forms of personal services.

The flow of personal service provision between these three categories through the market is conceptualized in “exchange tables” (see tables below). The effects of income/cost differentials and the size of the public sector for the conditions of exchange between these three categories are analysed. It is shown that the relative size of the service exchange ratios is determined by the interaction of income differences and the tax system.

By using existing data on incomes and taxes, the Swedish and American service labour exchange rates are calculated. By comparing them it is shown that top-down hierarchical service consumption is relatively much more favourable in the USA than in Sweden. The "service purchasing power" of an American professional is three times larger than that of Swedish professional for craft work and six times larger for service work.

This model will be used to explain the volumes of service labour in Sweden and the US, and the size as well as the institutional forms of top-down and bottom-up acquisition of service labour. The social implications of these inequality patterns in these two societies will be discussed.

The social division of labour and the societal pattern of provision of personal services

There are two major forms through which a person may command over another person’s labour/time. Either being at different locations within a hierarchical social division of labour (e.g. as power differentials within an organisation), or through stratification of resources in terms of property, income etc. Thus one person’s command over another person’s work/time can follow from power differentials or market transactions. Money and power are the two major generalized media according to Weber, Parsons and Habermas and command over another person’s time follows from differential access to these media.

Organization, power, hierarchy.

An organizationally mediated division of labour is not usually interpreted in terms of command over other people’s time, but rather as a rational division of labour, maximizing the outcome as its rationale. Theories of the social division of labour see the specialization of tasks, the mental-manual divisions etc as geared to efficiency and performance and they have since Adam Smith been associated with conceptions of efficiency and rationality. The consequences of

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2 The data are from the early 1990’s for both countries. The choice of the time period does not affect the analytical argument.

3 The obvious case of family arrangements will not be taken up here.
the social division of labour are on the one hand increased productivity, and
the production of new goods, more goods, and cheaper goods, all celebrated
by economic theory, and on the other well known aspects of the work
organisation and society, such as anomie, alienation and estrangement, major
themes of classical sociology. The central role of power in this context has
been forcefully emphasized by Dietrich Rueschemeyer in his work *Power and
the Social Division of Labour* (1986).

In organisations such as firms and public agencies the work of the
employees, and thus their time, is subordinated to already given goals and
routines. Command over time is exchanged against money in the form of
wages and salaries. This happens within an established division of labour,
where different categories of employees are more or less subordinated to the
goals, or, very relevant in this context, to the leaders of the organisation (firms,
public agencies etc).

Within such an organizationally mediated division of labour we can find
cases where the time of some employees is more directly subordinated to other
persons' decisions. In relation to a job and its tasks, other peoples work can be
subordinated to your own tasks. Managers may command over the work of
secretaries and assistants through the *organizational division of labour*. Their
work may relieve the manager/director from some of the routine tasks and
operations that are part of his/her job.\(^4\)

**Commanding another persons work/time through the market**

A second form where one person can command another persons work/time is
to buy that time through exchange over the market. This form will be the
main focus of this paper. If the consumer is a person or a household, we will
typically find *different direct or organizationally mediated forms for arranging
personal services*. As an illustration let us distinguish between three forms:

- employing a service worker in a personal/patriarchal relation,
- contracting a self-employed service provider in a market relation
- or in the indirect form of firms in the service sector providing the service

Employing a cook or a housemaid, contracting a caterer to arrange a dinner
at your home, and eating out at restaurants illustrate these three different
forms of mediated provision of services.

Large inequalities in incomes make a certain division of labour more
"efficient", by dividing the routine tasks from the qualified, the mental from
the manual etc. This efficiency can operate through the market as well as
within an organisation. In both settings, the degree of inequality will shape the
character of the social and technical division of labour. The more unequal the
pay and reward structure the more hierarchical we should expect the social
division of labour to be (e.g. by splitting off routine tasks into separate jobs)

\(^4\) Cf. the role of research assistants and secretaries in relations to scientists with regard to tasks such as
word processing, library errands, data collection and processing etc.
The logic and practice of taylorism has mostly been used in the classical industrial settings but it functions as well in the service sectors.

**The service labour exchange rate**

We will now analyse the exchange relations between three categories of occupations which are service providers as well as potential service users. Table 1 below conceptualizes the flow of personal service provision between three categories of service providers/consumers through the market. Professions, craft workers and service workers are chosen because they represent three different income levels and since they represent rather pure forms of provision of different kinds of personal services.

Professionals (=P below) denote groups such as physicians, lawyers, dentists, accountants, financial advisors, architects, decorators, psychotherapists etc, that is quite expensive services, and service occupations with high fees or salaries.

Craft workers (=C) denote groups such as plumbers, painters, repair workers.

Service workers (=S) includes groups such as nannies, child minders, gardeners, cleaning personnel, restaurant, fast food and hotel employees.

**Income distribution and service exchange ratios**

What are the effects of income/cost differentials? Let us assume that the following relations between incomes in the three groups, in Sweden and USA are correct; the figures are approximated averages for major groups in these categories from around 1990. The figures for the USA are estimated rather conservatively for the professionals, while a rather high figure is taken for Sweden.

In USA we have the following average yearly incomes: Professionals (P) $75,000; craft workers [C], $30,000; and service workers (S) $10,000.

In Sweden we had for the same period the following monthly incomes (in Sw. Crowns): Professionals (P) SEK 25,000; craft workers [C] SEK 15,000; and service workers (S) SEK 10,000.

At this stage we can assume that the hourly incomes/cost of buying/hiring the services is equal within each category. Here we have abstracted from taxes, the role of the public sector etc. That is, we imagine a simple barter economy where services are exchanged without transaction costs. Since there are no taxes, no social security contributions; no sales taxes at this stage the ratios for exchange within each category equals 1. If we relate professionals, craft

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5 Cf. the relevant sections in Statistisk Årsbok (Sweden) and Statistical Abstracts and Employment and Earnings (USA)

6 At this stage the model excludes all non-labour and overhead costs in organizing the provision of services.
workers and service workers as both providers and users of services, we get the exchange ratios shown in table 1.

Table 1. The Service labour exchange ratios between professionals, craft workers and service workers in USA and Sweden.

<table>
<thead>
<tr>
<th>Service Providers</th>
<th>Professionals</th>
<th>Craft workers</th>
<th>Service workers</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>USA</td>
<td>SWEDEN</td>
<td>USA</td>
</tr>
<tr>
<td>Professionals</td>
<td>1</td>
<td>(1)</td>
<td>2.5 (1.67)</td>
</tr>
<tr>
<td>Craft workers</td>
<td>0.4 (0.6)</td>
<td>1 (1)</td>
<td>3 (1,5)</td>
</tr>
<tr>
<td>Service workers</td>
<td>0.13 (0.4)</td>
<td>0.33 (0.67)</td>
<td>1 (1)</td>
</tr>
</tbody>
</table>

The more unequal the income distribution the easier it becomes for high-income groups to consume the services provided by lower-income groups. In table 1 this is shown by the favourable rates (and hence differences in the volume of services exchanged) within the upper right corner (i.e. P/C and P/S and C/S). An unequal income distribution will at the same time make it more difficult, i.e. costly in terms of ratios of hours, for low income groups to afford more expensive services. In the table above, this is shown by the ratios in the lower left corner (i.e. S/P, S/C and C/P).

In a society with a flatter income distribution (Sweden) all ratios come closer to 1 than in the US. The exchanges over the diagonal become less favourable, and those below the diagonal become more favourable in Sweden than in US. Table 1 expresses the income distribution in a relational way, which will be used in later tables.

The more unequal the income distribution is, the more advantageous will the service exchange ratios be for higher income groups and the more unidirectional we should therefore expect the service labour exchange to be. Thus the degree of income inequality by itself shapes the character and size of the service sectors in different societies. The more unequal the income distribution the larger the sector with low cost services. Comparing the relative size of the low cost service sectors in USA and Sweden demonstrates the validity of this thesis.

Taxes and the size of the public sector
Let us now introduce the public sector (the state, the counties and the local authorities) and its taxes, by discussing the diagonal in table 1 (i.e. the ratios
P/P, C/C and S/S). When there are no taxes, no social security contributions, no sales taxes, and no overhead costs in organizing the provision of services, then these ratios equal 1.

What are the effects the tax system? When the service exchange is mediated through the market and within a system with a public sector (and hence taxes) and where the exchange ratios P/P, C/C and S/S are understood as relations of hours of work, we must qualify the definition of the exchange ratio. It will have to be defined as the ratio between the buyer's net income after tax (i.e. disposable income) and total costs of acquiring another person's labour (i.e. the labour cost). That is, the ratios P/P, C/C and S/S are a function of:

1. \( \text{post-tax income for one person / total (plus-tax) costs for commanding another person's work.} \)

The larger the tax quota (including income taxes, sales taxes, social security contributions) is, the more different from 1 will the ratio between post-tax income for e.g. one professional and the costs for hiring one hour's work from another one be. That is, the higher the taxes are the larger will the "transaction threshold" for exchange of services within each cell in the diagonal become.

The ratios P/P, C/C and S/S can then be expressed in the following general way:

2. Disposable income per hour / labour cost per hour:

Disposable income is defined as income less income taxes, while the labour cost per hour is defined as the worker's income before taxes plus social security contributions and plus sales taxes on services (VAT etc)

The P/P ratio in Sweden is (1991): Disposable income (i.e. Income - 50% taxes) / Labour cost (i.e. income + 36% social security contributions + 25% value added tax), i.e. 50/170. Thus the P/P ratio in Sweden equals 0.3

The P/P ratio for USA was for the same year: Disposable Income (Income - 30% taxes / Labour cost (i.e. income + 10 percent social security contributions, + 0% sales tax [no VAT on services]), i.e. 70/110. Thus the US P/P ratio equals 0.63.

That is, the "exchange threshold" between professionals will be twice as high in high-tax Sweden compared with low-tax USA, due to the effects of the tax system.

The tax system and the tax rates within a country can produce different exchange ratios along the diagonal. The S/S ratio in Sweden, with an income tax rate of 30% will be close to 0.41 and with the lower taxes for service workers in USA, about 0.80. The C/C ratio in Sweden will be the same as the S/S ratio, while the American will be somewhat lower (0.41 and 0.70). Thus the expansion of the public sector will, if it is financed by taxes (income taxes, social security contributions sales taxes, etc) thereby make the exchange ratios more unfavourable, by making them smaller than 1.
The relative costs for acquiring service labour through the market - in money as well as in the currency which is used here, hours of work - will increase as a consequence of public sector expansion.

Comparing the service exchange ratios in Sweden and USA

From the discussion above we conclude that the service exchange ratios are determined by two social relations, income inequality and the size of the tax quota. Together these two relations produce ratios for the two countries given in tables 2 and 3.

Table 2. The final service exchange rates between three classes of providers/users (USA)

<table>
<thead>
<tr>
<th>Service users</th>
<th>Professionals</th>
<th>Craft workers</th>
<th>Service workers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Professionals</td>
<td>0.67</td>
<td>1.67</td>
<td>5.0</td>
</tr>
<tr>
<td>Craft workers</td>
<td>0.3</td>
<td>0.75</td>
<td>2.25</td>
</tr>
<tr>
<td>Service workers</td>
<td>0.11</td>
<td>0.27</td>
<td>0.8</td>
</tr>
</tbody>
</table>

Table 3. The final service exchange rates between three classes of providers/users (Sweden)

<table>
<thead>
<tr>
<th>Service users</th>
<th>Professionals</th>
<th>Craft workers</th>
<th>Service workers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Professionals</td>
<td>0.3</td>
<td>0.5</td>
<td>0.75</td>
</tr>
<tr>
<td>Craft workers</td>
<td>0.25</td>
<td>0.41</td>
<td>0.62</td>
</tr>
<tr>
<td>Service workers</td>
<td>0.17</td>
<td>0.27</td>
<td>0.41</td>
</tr>
</tbody>
</table>

The combination of income stratification and the size of the public sector have led to radically different service exchange ratios in the two countries. All Swedish exchange ratios are below 1, while the top-down service exchange rates are clearly above 1 in USA.

We should thus expect the differences in the pattern of service consumption between USA and Sweden to exhibit

a) a higher proportion of horizontal service consumption i.e. exchanges within categories that is along the diagonal, in USA than in Sweden - due to effects of the tax system. In all income groups we should therefore expect a larger proportion of market mediated personal services in USA than in Sweden.

b) a higher proportion of service provision connecting high income buyers with low income providers (due to income differences) in USA than in Sweden, such as personal and household services, a higher proportion of the food consumption in USA will be in the form of eating out etc.

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7 Societies differ with regard to the tax-exemption for certain services.
c) a lower proportion of transactions connecting low income service buyers with high income service providers in USA than in Sweden if we focus on the market (see also section 3 below!)

Tables 2 and 3 gave us the service labour exchange rates for transactions within USA and Sweden.

In order to facilitate the comparison, and to bring out the effects of income/cost differentials for the conditions of exchange between the three categories it is useful to express the US rates as a proportion of the corresponding Swedish rates. By dividing the US exchange/transaction rates (in hours) with the Swedish, i.e. the cells in table 3 with the corresponding cells in table 2, we obtain the following result (table 4).

**Table 4. US service exchange rates between three classes of providers/users expressed as a proportion of the Swedish rates.**

<table>
<thead>
<tr>
<th>Service users</th>
<th>Providers of services</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Professionals</td>
<td>Craft workers</td>
<td>Service workers</td>
</tr>
<tr>
<td><strong>Professionals</strong></td>
<td>2.2</td>
<td>3.3</td>
<td>6.7</td>
</tr>
<tr>
<td><strong>Craft workers</strong></td>
<td>1.2</td>
<td>1.8</td>
<td>3.6</td>
</tr>
<tr>
<td><strong>Service workers</strong></td>
<td>0.64</td>
<td>1.0</td>
<td>2.0</td>
</tr>
</tbody>
</table>

The ratios in table 4 lead to the following conclusions:

a) The diagonal in the table shows the effect of the tax quota. The total tax quota in Sweden was according to the traditional way of calculating 56% in 1988, and 30% in USA the same year, that is about twice as high as in USA.

b) The interaction of the tax system and the income differentials make the exchanges between craft workers /professional and service workers /craft workers rather similar between USA and Sweden (cf. the two cells close to 1 in the lower left end of the table.).

c) The American service workers (and by implication its low income population in general) have to pay about one and a half times more (in hours) for professional service labour than the Swedish service workers.

d) The upper right part of table 4 shows the interaction of income differences and the tax system. A sociologically significant conclusion follows from this exchange ratio, i.e. that the top-down hierarchical service consumption is relatively much more favourable in the USA than in Sweden.

A Swedish professional will have to exchange three to six times more hours of their own work for a craft or service worker than his American colleague. We can therefore expect to find different volumes of service labour in the Swedish and American consumption pattern, and therefore also in the sectoral distribution of labour. The dynamics of the sector providing personal services is obviously different in these two societies.
Handling the exchange thresholds: policy alternatives

The ratios calculated above are important for understanding the volume of service labour exchanges. However, this volume is also determined by:

- the size and role of "discretionary income" in the higher income brackets. Large differences in income usually lead to a situation where the affluent have large amounts of "discretionary income", i.e. income that they don't need to spend on the bare necessities of life. This will in itself increase the demand for certain kinds of personal services, both cheap and expensive services, thereby affecting the size as well as the character of the service sector.

- the socially defined monopoly, mandatory or subsidized character of service provision, such as the professional monopoly of medical services, monopolized legitimate provision of other services etc.

These dimensions can be seen as mechanisms facilitating or thresholds making exchange more difficult. This can be illustrated by the provision of services in specific fields.

Some services are more basic than others, e.g. health care and nursing. Let us look at the ratios S/P in Sweden and USA, such as a service worker in need of a physician. The US cost in dollars is high. In terms of time (=hourly incomes) the ratios involved in the exchange between an individual on the low wage level and an average physician between the two would be around 1/20. The average physician's income (1991) was about US $ 200,000 a year, and a typical service worker income is $ 10,000 (which is well above the minimum wage). Including all costs associated with health care (i.e. the overhead costs) the real ratio approaches at least 1/40. The tax system only marginally modifies this ratio.

In high-tax countries such as Sweden the exchange ratio between low-income service users and high-cost service providers can become be quite large, due to the "tax wedge" in the exchange. Taking the average salary of physicians into account, and doubling the ratio due to overhead cost here as well we would get a comparable figure of about 1/14.8

How do such disadvantageous service transactions then come about? If they are expendable they will probably become less prevalent - and low income people will stop using many professional services. But some services have become socially necessary, such as health care. How can these services then be provided within society?

There can be either a stratified access through market mechanisms, thereby systematically stratifying access to expensive services. Services can be unequally provided between affluent and poor, between regions and between ethnic groups etc. Comparing the distribution of US and Swedish consumption

8 Other aspects of the organisation of the health care in US will increase the exchange ratio even more.
capacity of individuals in relation to the income distribution give us the figure (fig.1)

Figure 1. Profiles of individual consumption expenditures in Sweden and Usa (social wage excluded)

In the "poverty gap" area we will find a low (or very low) consumption of professional services, while in the "affluence gap" we will find a large volume of service consumption of all kinds (cf. the argument above).

How can the exchange thresholds mentioned above be overcome? We will point to two kinds of market-modifying or market-transcending solutions.

b) An institutional solution for managing or equalizing access is insurance.9 The provision problem can be handled through insurance as a social form for handling risks and individual unpredictability of sickness. The health care sector exemplifies different alternatives. Private, occupational and public insurance are three major forms for handling the costs of health care, and thereby access. These three forms have different distributional effects, as is well known in social policy literature.

9 In the absence of, or as a complement to, insurance solutions costs can be graduated through mechanisms within the system of provision. This can be formalized as free care for the poor, subsidized care, informally by graduated fees (according to the ability to pay), cross-budgeting within hospitals. These are all techniques for overcoming the cost ratio and access thresholds within a society characterized by strong market-based inequalities.
c) The tax system can convert potential market-based consumption to public expenditure. In this paper we have up till now focussed on the effects of the tax system on the market exchange thresholds. But taxes are not only extracted from the population - they are to a large extent spent on services that adds to the final individual consumption. This part of the public expenditures can be conceptualized as a "social wage", denoting public provision of services such as health care, nursing homes, child care, education etc. which are all directed to individuals and households.

The social wage part of public expenditure adds substantial amounts to final personal consumption. The Swedish social wage makes up 25% of the total household consumption, while the social wage only makes up 9% of total household consumption in USA. The social wage component of public expenditure can be conceptualized as a generalized form of social insurance.\(^{10}\)

Transcending Baumol's dilemma

In 1967 William J. Baumol published a famous article on the long-term trend in the social division of labour.\(^{11}\) Baumol's argument was the following. Imagine a two-sector economy. In the first sector, production of goods is technically organized through a mix of machines and labour. There is a large scope for increases in productivity - over time there will be less and less labour time in each product. The other sector, the sector of service provision, is characterized by the direct use of service labour. Baumol argued that productivity growth in the goods sector will make commodities (relatively) cheaper. Baumol's point was that, viewed from the perspective of the consumer, services will become relatively more expensive. This process will as a rule - at least since the sixties - be accentuated by inflation. Thus the change in relative prices for the consumers will appear through the combination of stable or slowly increasing prices for goods while there will be sharp (nominal) price increases for services. Therefore the demand for services will fall.

Baumol's point is that the price of services is seen through the lens of commodities. I.e. what matters is not the absolute cost in terms of hours of work but the costs in terms of goods. Through this imposed comparison, this generalized market perception will make the services seem more expensive. Thereby we become more resistant to pay their increasing relative prices.

This perspective of relative prices can be used to explain the declining demand for certain services. Instead of repairing cheap shoes, we buy a new pair. Exit the cobbler, the seamstress, the tailor. It also explains the importance of certain Do-It-Yourself activities. Historically Baumol depicts a

\(^{10}\) See Gunnar Olofsson "Social Wage and Consumption Regimes".

socio-economic trend where we would expect a consumption pattern increasingly dominated by commodities. But what happened? Baumol’s forecast was partly correct - but also mistaken. Certain kinds of services have been drastically reduced, and they have been supplanted by commodities. But, and that is the interesting paradox, at the same time the real consumption pattern and the composition of the labour force pointed to an increasing importance of service jobs and consumption of services. How can this apparent contradiction be resolved? We suggest that the kind of analysis made above focussing on the service labour exchange ratio, and the factors that were found to define it, income differentials and the role of the public sector (both as a taxing power but also as spending organisation) will contribute to solve Baumol’s dilemma.

Baumol’s theory focuses on the long run development in the divergence of productivity growth between the sector producing goods and the sector providing services. However, there are countervailing tendencies in society that may explain the stubborn resistance of the service sector, and even its capacity for growth and expansion. Service employment in Western societies has increased as a whole; personal services have not been reduced in the proportions to be expected from Baumol’s argument, while employment in health services has expanded enormously.

What are the mechanisms that counteract the effects of the increasing differential between the prices of goods and the prices of services?

First, Baumol’s argument overlooks the consequences of social stratification affecting the income differentials between categories of service providers and service users, both the widening income differentials, but also the size and role/prevalence of discretionary income among service consumers.

A second, major explanation is the invention of and expansion of non-market forms for handling the financing of service provision, such as the role of taxes and insurance for the expansion of health services. This is why the role of the publicly paid or subsidized forms of welfare provision, the social wage in kind, plays so large a part in the dynamic of inequality in different societies and for the kind of service sectors and service labour that is typical of different societies.