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Rising unpaid overtime: a critical approach to existing theories

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Abstract: In the last period, especially before the current economic crisis began, the phenomenon of employees working long hours without been paid has been observed. This trend appears to have become stronger in the last 15 years but there is ample evidence that the tendency began before then. While there have been various explanations put forward as to why employees work *paid* overtime, theoretical justification for working *unpaid overtime* by neoclassical economics seems to be fragile; deferred compensation theory, human capital theory, signalling, gift economy theory and Pareto Optimality analyses are not sufficient to explain the existence and persistence of unpaid overtime. Finally an analysis based on Political Economy's principles is proposed; tendencies of surplus value extraction, capitalist restructuring and trade unions may be capable of comprehending this phenomenon.

Keywords: unpaid overtime; surplus value; neoclassical economics; deferred compensation; human capital; signalling; gift economy; Pareto Optimality; restructuring; exploitation; unions.

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Biographical notes: Elena Papagiannaki is a PhD student of Aston University in the UK dealing with kinds of Unpaid Labour. She studied in the University of Macedonia (Greece). Her Master degree in Economic Theory and Policy. Her Master Thesis is on Unpaid Overtime and was presented in the *1st International Conference of IIPPE (International Initiative for Promoting Political Economy)*.

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1 Working time in economic theory

Working time has been a hotly debated issue from the very birth of the science of economic theory and it continues to be a theme today which draws the attention of social scientists. From the end of 19th century until the beginning of the 20th century the main

issue in this discussion was whether a reduction of the hitherto long hours of work was beneficial or not for the economy.

Classical political economy is based on the labour theory of value. It describes in what way all independent economic units are united and synchronised in order to produce and exchange with each other. Additionally, rationality and hedonism are taken as characteristics of economic beings. Rationality describes workers' preferences too. Leisure time is an exchangeable good for workers. Income is also an exchangeable good. Workers' preferences balance between leisure time and income, which have a competitive relationship with each other. For this reason, the ups and downs of working time are attributed to income or substitution effects for workers. Unpaid work is therefore an anomaly.

Marx highlighted the fact that every commodity has both a use value and an exchange value. The former is used to describe its utility and the latter is used to describe the necessary labour for its production. His critique of classical political economy explained labour according to the value theory of abstract labour. Value here is the *socially necessary working time for a commodity's production*, not the embodied labour of a concrete worker in a concrete industry (Marx, 1982). Marx also argued that profits come from unpaid workers' labour. Marx showed that the working day is separated in two parts: the first one is creation of the workers' wage and the rest is the surplus value which capitalists 'steal' from workers. Surplus value extraction can be *relative* or *absolute*: in the first case the working day remains stable, but the wage per hour is reduced, and in the second case there is a prolongation of the whole working day. For this reason it is to the advantage of capitalists to fight for a longer working day, smaller wages etc. Workers, on the other hand, struggle for a shorter day and/or higher wages. Consequently, both classes through their collective bodies fight on the question of work time too. However, there are upper and lower limits to work time: the physical limits set an upper bound, but production's completion sets a lower bound. Consequently, work time is determined by the class struggle of capitalists and workers, taking into consideration technological improvements, improvements of productive techniques etc. Here unpaid work to the benefit of the employers is more easily explicable in terms of exploitation and workers weakness but still an issue to be explained fully.

The marginalists, or the neoclassical school of thought, rejected the labour theory of value and replaced it with subjective value theory. Their analysis is based on prices, rather than values. Every commodity's price is determined by its utility which is subjectively given by individuals. Economic relations are analysed based on "methodological individualism" where "social interactions are finally interactions between individuals" (Arrow, 1994). People are hedonists who maximise their utility (which is given and unchangeable) subject to their budget constraints. Additionally, an economy always tends to equilibrium; individuals exchange with each other to a point where no one can become better without someone else's becoming worse off (Sraffa, 1960) with prices determined by demand and supply. As for working time, workers are assumed to have some constant preferences for this. Leisure time and working time (income) again have a competitive relationship with each other, because labour is considered to be a harmful process, and leisure a relieving one. Workers choose their proportion of work/ leisure in order to maximise their utility with the final outcome for the worker being a fair wage. Consequently, for years working time reduction or working time extension was explained by marginalists by the dominance of substitution

over income effects. But with the phenomenon of rising unpaid overtime marginalists face a problem in providing arguments and explanations for why this occurs.

Paid overtime began with the existence of the regulation of work time. When the first factory laws took place it was expected that working time would be reduced. For decades there was a belief that work time was being reduced, and overtime was following the same tendency. However more recently in developed capitalist countries it has been argued that working time has started increasing again at least before the outburst of the current economic crisis. It is only recently that records have begun to be kept of unpaid overtime but this will add to the problem. We now find economists who argue that:

- working time is increasing
- paid overtime is increasing
- unpaid overtime is increasing.

The intention of this paper is to analyse these perceptions of working time extension and especially the increase of unpaid overtime. This is an important problem for orthodox economics since it does not have the analytical toolbox to see the fact that employees are subject to exploitation. From a political economy perspective this is more obvious. For these reasons, we will first consider this issue in the light of neoclassical perceptions.

2 Unpaid overtime: evidence from developed countries and the existing theoretical explanations

2.1 Detecting unpaid overtime

Unpaid overtime has commonly been observed in the three last decades. Until then economic analysis has focused on questions of work time reduction. Since the early 1990s, this question has been reversed. Schor (1991, 1999) was the first major commentator who observed the increasing working time, after years of reduction, in her research on the American economy. This helped to re-ignite the ‘debate on working time’. Bell and Hart (1999) added some new evidence about working overtime. Most of the subsequent works then analyse the phenomenon of unpaid overtime as depending on a range of variables which are discussed below.

In respect of working time Schor pointed out that Americans work 158 hours more per year – which means nearly an extra month of work each year – based on data from 1969–1989 (Schor, 1999, p.2). Golden and Figart (2000) found that working hours per year have increased 4% since 1980 in the USA (p.16). So far as over time is concerned Hetrick (2000, p.30) argued that during the economic expansion of the 1990s employers in manufacturing industries were more likely than in previous recoveries to increase overtime hours among existing employees than to hire new workers. The majority of these scholars agree that this phenomenon is much more apparent and persistent in workers who are employed in what is called services and the tertiary sector, than in the secondary sector. However, this does not mean that manufacturing workers are not subjected to this working time extension as well.

Golden and Figart (2000, p.16) showed that overtime hours have reached a record level in manufacturing. In these surveys, unionisation is a variable with a disputable impact; in some cases it serves to reduce working time leading to an increase overtime,

but in some other cases it just reduces overtime hours (Bell and Hart, 1999). Males work more long hours than females (Bell et al., 2000) and overtime varies among groups of workers; unskilled workers exhibit lower overtime, but skilled workers higher (Bauer and Zimmermann, 1999).

These surveys suggest a pattern of unpaid overtime. Bauer and Zimmermann (1999) suggest that paid overtime work is in decline. White collar workers or workers with higher education demonstrate a kind of persistence in working unpaid long hours (Pannenberg, 2005; Anger, 2008). Unionised workers or workers in highly unionised countries do not work unpaid overtime or work less unpaid hours in comparison with the un-unionised (Bell et al., 2000). Workers with short tenure also work unpaid overtime (Anger, 2008) and also their unpaid overtime tends to be equal with paid (Bell et al., 2000). Unpaid overtime has been observed to be higher among temporary workers than among permanent by 60% (Engellandt and Riphahn, 2005).

The increasing tendency of unpaid overtime has been detected by many commentators. However, there is poor evidence for unpaid overtime because few statistical data would be provided by firms for an issue which implies their offenses towards labour legislation. Our information is based mainly on Time Use Surveys and Household Panels. Additionally, a part of workers who are asked about their unpaid labour may hesitate to provide a positive answer or give further evidence in cases that surveys are conducted in their workplace.

Since this phenomenon has been observed various explanations have been put forward but unpaid overtime has an inadequate theoretical explanation in mainstream economics not only due to the fact that has only been observed relatively recently but also because it creates an inherent problem in the context of the approaches defended by this stream of analysis.

2.2 Classifying the theoretical approaches to unpaid overtime

The phenomenon of unpaid overtime appears to violate one of the fundamental assumptions of neoclassical theory, that labour and capital receive their marginal products. Various explanations have therefore been put forward in order to prove the continued validity of the marginal theory of productivity. Neoclassical economists consider capital as an input equal to labour and profits consist of capital's return while wages consist of labour's contribution. For this reason there would be a total collapse of the theory if there were to be labour which is not paid. Neo-classical economists have therefore tried to develop mainstream theories defending either the view that unpaid overtime is somehow paid or there is no need for it to be paid, or even workers do not want to be paid.

- *Unpaid overtime and deferred compensation theory*

In this approach, based on neoclassical assumptions, labour is considered a simple input in production, which receives a wage corresponding to the workers' marginal product. *Unpaid overtime is considered to actually be paid and it consists of an investment whose compensation is deferred to the future.* It is argued that since employees provide unpaid working hours the firm will increase its overall output and profits so that employees can be rewarded later with higher earnings or other benefits. Pannenberg (2005) claims that the term 'unpaid' overtime is not appropriate to describe this phenomenon. He argues that from the employees' point of view these hours appear unpaid, but from an economic

point of view these hours are actually paid in the future with a potential promotion or a wage increase. A survey carried out for the UK by Campbell and Green (2002) claimed, for example, that an extra unpaid hour over 1991 to 1995 raised 1996 pay by approximately 4%, quite a lot more than the 1% marginal impact of paid overtime hours. The authors conclude that labour still receives what it ‘deserves’, sustaining one of the most fundamental assumptions of the neoclassical approach.

- *Unpaid overtime and human capital theory*

Another neoclassical based approach which has been put forward to interpret this phenomenon refers to *human capital theory*. Knowledge and education are factors which improve labour’s quality as an input of production. Knowledge acquisition and education are forms of human capital acquisition by which individuals gradually ‘concentrate’ a stock of human capital that will again be rewarded in the future (Booth et al., 2003). Working long hours is seen then as an investment, since this can be used to raise an individual’s productivity. This approach applies to cases where substitution effects are dominant rather than income effects. These substitution effects, which provide more future earnings than their present work, are more dominant than income effects, i.e., staying in job within contractual hours and receiving an analogous wage. Thus, highly educated employees, in particular, whose substitution effects are more evident than the income ones, work long hours in order to increase their return in terms of human capital investment, implying that labour also finally receives a fair reward corresponding to its marginal product.

- *Unpaid overtime as a Pareto improvement*

A third neoclassical based approach attributes the existence of unpaid overtime to a *Pareto Improvement which takes place after economic bargaining between employees and employers*. This does not involve assuming a typical Walrasian centralised market, where labour demand and labour supply meet to determine variables such as wages and employment. Instead in this model, workers and firms come together in a decentralised market with view to matching their preferences through bargaining. There is an aggregate production function, according to which employers maximise their profits while employees maximise their utility function with respect to their working time (wage) and leisure time. Pareto efficiency, or Pareto optimality, is a state of allocation of resources in which it is impossible to make any one individual better off without making at least one individual worse off. Workers and entrepreneurs are bargaining with each other to determine labour’s and capital’s rewards, which will eventually be their marginal products in terms of Pareto Efficiency. Thus, optimal wages, optimal working time limits and optimal working overtime premia are ultimately determined by this bargaining process. Institutions (governments, laws and agreements, trade unions) exogenously affect this bargaining procedure and ‘distort’ its optimal outcome. Working hours and premia may be determined either by a government law, or by union arrangements. When higher overtime premia are imposed, this becomes an inefficient situation in terms of Pareto Optimality. This leads employers and employees to new unofficial arrangements. According to these arrangements, employees ‘offer’ unpaid working hours in order to offset higher overtime premia to satisfy Pareto optimal conditions (Bell et al., 2000; Trejo, 2001).

- *Unpaid overtime as a signalling device*

A fourth approach based on neoclassical reasoning sees unpaid overtime functioning as a *signalling device* in an environment under *uncertainty*. In this approach there is also a decentralised market, where employees and workers bargain over wages and working hours. However, in the labour market there is imperfect information. Employers do not know their employees' level of competence. A labour market can fail due since employers only have access to imperfect information about their workers' quality. Employers do not know how consistent or productive their employees are so they may hire less productive employees. Thus, an adverse selection problem arises and according to the theory, agents are forced to use a device to resolve this inefficiency.

Signalling involves a detection device which *employees* use in order to safeguard a labour market's existence, avoid failure, and finally be hired by employers. Signalling is based on the axioms of Imperfect Information Dynamic Games. Players have access to an information set, not the total information. Unpaid overtime and employees' tolerance towards working unpaid long hours is the information set which is necessary to send messages to employers. Sequential rationality characterises each player's strategic profile. A strategy profile is sequentially rational at a particular information set for a particular belief system if, and only if, the expected payoff of the player whose information set it is maximal given the strategies played by all the other players. According to this strategic profile players maximise their utility given their beliefs in the game. This particular model was introduced by Akerlof (1970), who describes ways of solving Adverse Selection problems with asymmetric information, and adapted by Spence (1973) who specified these in the labour market. More specifically, this model is based on assumptions such as:

- the existence of many identical potential firms that can hire workers
- each firm produces the same output
- firms use an identical constant returns to scale technology
- firms use only one input, which is labour
- firms are risk neutral and seek to maximise their 'expected' profits
- firms act as price takers (Mass-Collel et al., 1995).

Under this signalling process, *employees* are the senders and employers are the receivers. In the existing literature, there are 'separating equilibria'; distinct types of employees choose distinct strategies; high ability workers can afford to work more unpaid overtime, while low ability workers cannot. This means that ultimately no one can pretend to be a different from their real type. In this case only employees of high ability can work a lot of unpaid overtime, while those of low quality cannot. Unpaid overtime is used, therefore, to show their employers details about employees personality at work; it may signify that employees who work unpaid overtime are able to undertake extra duties, or are more enthusiastic about their tasks etc. Employers after having received this signal can separate their employees and finally give benefits to those of high ability (Meyer and Wallete, 2005; Anger, 2008).

Screening is thus an additional detection device which is used by employers in order to resolve the inefficiencies caused also by imperfect information. This approach has been tested by Engelland and Riphahn (2005) for data from Switzerland.

- *Unpaid overtime as a gift exchange*

An alternative approach presents unpaid overtime as a *gift exchange between a worker and their employer*. Although the approach seems to be a behaviouristic one, the idea of a gift exchange has been examined by an economic model. Here unpaid overtime is a gift on the behalf of employees towards their employers' for their latter's good behaviour. The gift exchange model has been also compared with models of exchanging commodities by Bell (1991). The difference between gifts and commodities is that a gift implies a social relationship between parties to the exchange, whereas commodities are exchanged with other commodities without obligating any person beyond the immediate exchange itself (Gregory, 1982).

The gift exchange model is based on the critical assumption of a positive relationship between wages and worker effort levels (Gneezy and List, 2006). "Workers are assumed to respond to high wage levels by increasing their effort (positive reciprocity) and to low wage levels by decreasing their effort (negative reciprocity) to the minimum required, in retaliation for the low wage" (Akerlof, 1982). Gift exchange as a mode of exchange usually took place in pre-capitalist formations between tribes (Malinowski, 1922), but Akerlof (1982) introduced the gift idea in interpreting relations between employees and employers. In this approach, unpaid work consists of a gift which is offered to employers for high wages. Usually in gift economies a response to a gift is a counter gift of highest value to the original giver. According to Bell (1991) the time invested in the flow of gifts may be associated with time spent together or with time required to produce things of value to the other. In this model, the workers' gift to employers is work in excess of the minimum work standard, while the employers' gift to them is wages in excess of what they would get if they left this job (Akerlof, 1982).

- *Unpaid overtime as a result of organisational mechanism*

There is a final group of theories which encompass approaches relating the phenomenon of unpaid overtime to the organisation of production. According to this approach, unpaid overtime is related to *uncertainty over a task completion* (Bell et al., 2000). In complex professions there is uncertainty about the necessary working hours of a task. Thus, some workers may have to provide more working hours than their contract determines. However, uncertainty over task completion still holds in numerous professions so it is not clear why premia are not given to workers whose 'tasks never end'. The issue does not concern task completion uncertainties as such but the fact that they are unpaid.

In addition, there is an approach which connects 'leadership' roles with unpaid overtime. Workers with *leadership roles* may work more unpaid overtime. When workers are organised into teams, leaders usually cover various tasks of the less productive workers. Consequently, leading workers tend to work unpaid overtime in order not to lose their reputation or future benefits (Bell et al., 2000). This type of production organisation, by paying workers as a group does not have an impact only on unpaid overtime, but also on overtime generally and on working time extension.

However, according to a recent work, Tseng (2011) "unpaid overtime can be analysed within the scope of 'embeddedness' theory. In embeddedness theory an economic decision relies on the environmental limitations rather than from perfect actions

independent from every situation". Tseng added some new perspectives on unpaid overtime by drawing on cognitive, structural, cultural and political embeddedness and claiming a relationship of unpaid overtime with expectations and economic orientation (cognitive), moral norms and long-term orientation (cultural), organisational mechanisms and job design (structural), and supervisor influence, group cohesiveness and industrial relations (political).

These last two approaches do not attempt to apologise for the existence of unpaid overtime, or to justify by claiming that it is actually paid, or to detach the wider economic meaning of the phenomenon by highlighting only the self-serving behaviour. Rather they attribute this phenomenon to the organisation of an economy and production.

3 A critique of the proposed analyses

All these different explanations of the unpaid overtime phenomenon may have some value in some particular cases. There is evidence that employees have worked unpaid overtime to signal their quality or to offer a gift for 'generous' employees. There is also evidence that some employees are rewarded with future earnings. However, these approaches all confront significant explanatory deficiencies which are critically examined below.

3.1 General counter-arguments

These theories all begin from a distorted perception of the nature of labour. Firstly, labour is not the simple input that neoclassical economics suggests. It is not a dead input, but a process which gives birth to new products, transforming 'inputs' into 'outputs'. Actually, neoclassical economists see 'utility value' as a measure of 'exchange value' (Theocharakis, 2005). That is, instead of the Labour Theory of Value, they introduced the Subjective Theory of Value; exchange value does not depend on production process; labour power (workers' capacities) which transforms values (inputs) to new values (output), does not determine products' exchange values. Only utility value (individualistic perception of consumers) determines a product's exchange value. Labour is the work of social beings' and is subjected to social processes in which workers may form a discrete class with concrete interests. They do not only work, but also have opinions about the production process and society. They participate by thinking, improving their techniques, and demanding. In capitalism labour has been widely socialised because every single worker is related with the others, even if only in an indirect way. Under this socioeconomic formation labour has certainly been transformed into a commodity since workers sell it to capitalists in exchange of their wage. But it differs from other commodities, because employers pay workers their wage *after* their labour is spent whereas with other 'inputs' that are purchased *before* their use.

Secondly, and in contradiction to the neoclassical assumption that workers are maximising their individual utility by choosing working time, wages, benefits etc, real workers are not the economic beings found in laboratory environment. However, workers' 'preferences' are historically constructed. Labour wage is determined at specific levels through technological, economic, social, political and, more generally, historical processes (Marx, *The Capital*, 1977). For instance, when there is a new technological improvement which boosts workers' productivity, their 'preferences' for wages may be

adjusted. Thus, they are led to demand higher wages, since within the same working day produces a higher output.

Moreover, economic relations according to the core of neoclassical economics are analysed by “methodological individualism”; “social interactions are finally interactions between individuals” (Arrow, 1994). In fact they do not see any difference between acting individually and acting collectively. Even some neoclassical theories recognise these differences; “a major source of firms’ specific human capital derives from interaction skills acquired by members of work teams” (Doeringer and Priore, 1971). Despite the revised neoclassical models, the core of its philosophy is to deduct everything in individualism. However, in capitalism “the widespread socialisation of labour (took place) as large groups of workers came together in production” (Marx and Engels, 2008), creating new condition in people’s interactions. This led workers to include social demands in their agenda, rather than individual desires.

Fourthly, these theories all lack the historical specificity to answer the question of why has this phenomenon appeared now? For years there was the sense that working time could only be reduced. There is therefore no answer to the question of why working time a change has occurred so that overtime and more specifically unpaid overtime has risen in recent years. This issue has been analysed with respect to changes in capitalist restructuring; the organisation of production etc which leads to changes in labour process. Van Echtelt et al. (2007), for example, refers to the post-fordist organisation of economy as an important factor leading to unpaid overtime. But as a consequence, we have then have to provide an explanation that gives an historical basis to such a shift.

3.2 *Specific counter-arguments*

- *Unpaid overtime and deferred compensation theory*

Employers in their efforts to maximise their profits minimise their costs. Labour cost includes wages, benefits, insurance and overtime premia. This theory claims that workers will be compensated in the future instead of the present. A possible reason for this is that employers want to postpone their present cost and transfer it to the future where their profits may be higher. Thus the percentage of labour cost would appear lower so by this procedure the capitalists earn two things: firstly, they ‘escape’ from paying an important amount of labour cost in the present and secondly, they face paying a lower percentage of labour cost in the future after increased profits. Workers forfeit their present payment after having expended extra physical and mental effort and additionally, their future compensation may not be in proportion to the increased profits.

Employers too face uncertainty about their future profits. If they could be sure that their company would obtain higher profits then there should be no problem in paying workers’ overtime premia in present. However, employers use free labour because they also have in mind a potential for stagnation or failure. With unpaid labour they reduce the cost of this negative potential. Employees on the other hand work unpaid hours, which have no guarantee of being compensated in the future.

Even in cases of increased profits it is not certain that employees will receive appropriate compensation. As we saw Campbell and Green (2002) claimed on the basis of a survey carried out for UK, that an extra unpaid hour between 1991 to 1995 raised 1996 pay by 4%. But it is not clear that this equates to the marginal product of such labour. Let us take the case of an employee who works 8 hours. An extra hour would

mean $8 + 1 = 9$. Thus, this worker initially offers $1 : 9 = 11\%$ of their time without any compensation. This means that the worker has spent 11% of their time to receive a potential of only 4% higher earnings. This is a potentially disproportional exchange in which employees may work more in the present without being paid proportionately in the future.

Equally, the cases where employees are compensated with promotions or with avoiding potential lay-offs are problematic. It is obvious that employees who have not succeeded in being rewarded or keeping their jobs will have worked numerous real unpaid hours. In restructurings even the successful employees who remain at their jobs may not be compensated and for those laid off there is no compensation at all.

Finally, empirical testing does not support the deferred compensation hypothesis. Anger (2005a, 2005b) showed that from 1993 to 2004 in Germany, unpaid overtime hours could not be seen as an investment, since there is little evidence for future wage growth and promotion, and it did not help to prevent future lay-offs. In addition, Meyer and Wallethe (2005) did not find evidence for future benefits from working overtime. They tested the impact of overtime on the transition from temporary jobs to open-ended jobs, and the existence of any positive result that signalling device. They focused both on 'presentism' (staying long hours in work) and 'absenteeism' (leave from work usually due to supposed illness). Their findings indicate that 'absenteeism' had, in general, no effect on the probability of exiting to either a permanent job or to unemployment" (Meyer and Wallethe, 2005).

For these reasons, the theory of deferred compensation appears to have both analytical and empirical difficulties in explaining unpaid overtime. This is so especially if we take into consideration the on-going crisis where numerous firms have shut down leaving millions unemployed of workers. From the worker's perspective all the hours they 'invested' in unpaid labour have disappeared 'down the drain'.

- *Unpaid overtime and human capital theory*

When we turn to human capital approaches then in addition to the problems mentioned above we have to highlight that knowledge acquisition cannot be seen as something that improves only a workers' individual quality – it is a factor with great impact on improving the production process as a whole.

Knowledge acquisition has multiple positive effects on production. Workers, scientists, artisans throughout history have elaborated tools, invented machinery, conceived nature's laws etc. The majority of this knowledge acquisition has taken place and takes place in workplaces, in households, in laboratories etc. Knowledge in this sense can be hardly characterised as belonging to 'someone' since it is a social product. Any employers' property rights relate to a socially, or collectively derived output. If the argument is that they have sole rights then perhaps they should invoice their employees for any new knowledge that is acquired by them regardless their tenure?

Workers may invest in themselves by acquiring new knowledge in their jobs, but this 'investment' is useful for employers too. An employee's increased productivity contributes to increased output with the same cost which leads to more profits. Employees both learn from this procedure and they work. Even in cases where training takes place or a company uses its resources to teach employees, this has multiple effects on their future performance too. Employees "learn by working and producing" and do not "learn by just wasting company's assets".

It is claimed that in cases of workers' mistakes due to the lack of knowledge, that employers have to be protected. In every workplace mistakes can happen, especially by the new entrants or the untrained staff. But charging in advance for the knowledge that will be acquired by workers is equivalent to saying "Pay for your training! Otherwise I, the employer, will be damaged!". Usually the side which benefits more from this training might be expected to pay. Moreover, making mistakes is inherent in the human factor and both all workers and all employers can make mistakes. Workers mistakes on their own are unlikely to put the company in jeopardy. Usually, workers' serious mistakes take place mainly when there is poor security policy, or limited controls. At least in this case new entrants should not be charged with highly responsible duties. Even then, employers hardly have the right to anticipate them in advance for all workers by making them pay with various penalties. With the potentially more serious employers' mistakes which can lead companies to bankruptcy workers have no equivalent means to protect themselves.

Human capital acquisition can also take place either within contractual hours as an integrated process or out of contractual hours as separate subsidised special sessions for which employees must be compensated for spending their leisure time. There is no reason for depriving employees from their leisure time without pay. Employers can teach their employees without using free labour. In cases where they cannot deliver lessons in the existing work time then employers have to accept that extra working hours which contribute to their profits must have a paid return to labour. If they cannot pay extra working hours then employers should be restricted to training their employees *within* their standard contractual hours.

Unpaid overtime is also not only a phenomenon of the newly entrant workers or the untrained. It extends to a wide range of workers. Human capital theory was tested by Anger (2008) and was not found "capable of explaining earnings differentials between workers". In such empirical tests there is no evidence which shows that unpaid overtime is a unique phenomenon in new-entrants or young workers. But the data does suggest that new-entrants work unpaid overtime more than the rest. However this seems more easily explained by the fact that they are a vulnerable group of workers. In order to remain in their jobs cannot easily react to violations of their contracts by their employers.

- *Unpaid overtime as a Pareto improvement*

The Pareto improvement approach admits that employees and employers are different groups with conflicting 'preferences' in work time limits and wages. But it still does not consider their institutions as endogenous factors. This theory cannot see the social and political continuities in these two groups. Unions, organisations and government are examined without connecting them to their economic base and any contradictory interests of capitalists and the working class. Thus, beyond the neoclassical assumptions on which this theory is based, its most serious problem is to 'extract' the endogenously economic nature of class organisations and call them exogenous factors.

According to this approach workers and employers appear to bargain from equal positions. However, one of these groups has more power to set its terms. Employers own the means of production, but workers own their labour power. The former gain profits from this process and the later only their wage. Employers can choose how many employees to hire and whom. Workers have to choose between unemployment or bad contacts and fulfilling contracts. Employers offer job positions while employees demand them. In the case of filling a job vacancy with a low productive employee employers face, in the worst case, lower profits. On the other hand, if an employee has a

low productivity or does not reach firm's standards they can face the potential of being fired. Filling a job position is important for employers in order to safeguard their profits. On the other hand, a job is important for an employee to secure their survival. Even in case of firms' bankruptcy, employers are offered by legislations limited liability, securing them not to pay debts to their employees or to other stakeholders; their company may not be saved, but most of their accumulated savings are quite protected. If we want to look further employers can use their power to influence politicians by financing their campaigns. Employers have no such a capacity; they are restricted to electing politicians. Employees can form unions pressing the governments, but unions are not lawmakers. Thus, employees bargain from different and unequal positions in comparison to their employers.

Even if employees have some degree of liberty before signing the contract this liberty is missing once employees start working after the initial bargain. Disagreement on contract conditions within a job and searching for another job is difficult. An employees' individual bargaining power is extremely restricted. Employees cannot impose their desire for an increased wage, but the cases are numerous where employers have made (legal) wage cuts. Employers are able to fire their employees regardless of signed contracts. So the supposed move to a Pareto Optimal choice is not a result of equal bargaining powers, but subject to employees' limited choices before and after signing their contract.

One way that workers can press for better conditions, higher wages, smaller working day is by organising but higher wages, overtime premia and other benefits are not always found in a government's or a union agenda. Unions are only a means of social, political and economic pressure, they are not constitutional bodies which can exert official power. A union's ideological composition varies – there are unions that serve employers interests persuading workers to accept low wages and higher working time limits, while there are also unions that are more radical. Additionally, the level of participation in unions differs between countries. There are countries with higher participation, such as the Scandinavian countries, and others with continuously low levels of participation, such as Turkey. Thus, even with union pressure high overtime premia are not likely to be imposed in every sector of all economies. Even within the logic of the Pareto Optimality argument we have to allow for the possibility that bargaining may make employees worse off by depriving them of their overtime payments, while it makes employers better off by letting them use a costless input.

- *Unpaid overtime as a signalling device*

In the signalling approach workers sacrifice their leisure time and its payment, not to receive a payment in future but to send a message. The extra units of labour input remain unpaid in order to convince employers that the worker is useful yet the free working hours contribute to companies' output and profits. If workers were sure that their high productivity and their enthusiasm would be enough to convince their employers to keep them in job, or give them a promotion then they would probably not offer any extra unpaid hour. Nor does such signalling have much relation to skills sets. For instance a PhD holder employed in office administration may do the same job as a much lower skilled employee but still has to work unpaid overtime to convince her employer about their high ability. Such cases of skills imbalance, where employees' tasks do not correspond to their abilities, put a question over the labour market as a whole. It seems more likely that the reason high ability workers might work unpaid overtime relates more

to economic factors, such as the tough competition between employees in the workplaces and high levels of unemployment for highly skilled workers.

When workers are employed in jobs corresponding to their abilities such economic factors continue to play a role. If there is only a communicative cause and no economic reason for working unpaid overtime (fear of unemployment or not getting a promotion), then this piece of information could also be acquired while employees worked within a normal 8 hours. Workers can show their abilities within contractual hours too, no less than acquire human capital in these hours and without reducing labour costs for the employer by accepting unpaid overtime. Within the theory it is unclear why employers cannot be informed about employees' willingness within the work contract and a fair wage.

If in neoclassical terms signalling is used to solve 'inefficiencies' caused by 'imperfect information' then it also leads to new inefficiencies. By using unpaid long hours as a signalling device precious effort is wasted inefficiently as employees sacrifice their leisure time without any compensation. Thus, a new inefficiency is created to solve the previous lack of information. Moreover a second inefficiency then arises in as much as all these extra working hours, if they were paid, could have been allocated to unemployed.

The approach also has empirical weaknesses. Anger's (2008) own empirical analysis again did not give clear evidence that unpaid overtime can actually acts as a signalling device; in West Germany there was some evidence for a positive signalling result for the workers, but a negative one was found for East Germany.

- *Unpaid overtime as a gift exchange*

Exchanging gifts is not the same thing as exchanging commodities. Both are a product of specific socio-economic systems. Under capitalism the capitalists own means of production and employ workers to produce commodities. These commodities then become the symbol of their relationship (Marx, 1982). The 'gift economy' worked in a period of time when the market was not the dominant means of exchanging products and social relationships were more personal. It can be claimed that gift economy consists of a more 'primitive' way of exchanging goods. However, personal relations are also more immediate. Persons belong to tribes caring about their collective welfare. They work, produce, consume, love and get married within this close group of people, taking seriously their reputation. Consequently, in a gift economy people maximise the collective welfare directly, while in the contemporary economy the theory is that they do so indirectly as a product of the egoism. The gift economy and its organisation precedes the dominance of exchange one. Economic and personal relations have not been distinguished yet whereas the commodity economy requires the substitution of social relations with commodity relations (Bell, 1991).

Differences in the role of labour arise from these different logics. In the gift economy time spent in labour is not clearly separate from time spent in other activities. Gifts cannot be exchanged according to their value and cultural factors play a major role on the way of exchange. The time invested in the flow of gifts is more diffused and not distinguished from the time spent in consumption, in free time, in family time etc. In market economies this distinction of time has already taken place. Commodities are the immediate result of time spent in labour. Both gifts and commodities have value since they are produced by humans, but as soon as the process of distinguishing peoples' time

into working time and resting time begins then commodities start to be exchanged more or less at their value.

In gift economies there is no market for labour either. Labour is transformed to an exchangeable good only in capitalism. For this reason, offering unpaid working hours as a gift in an economic system that has distinguished personal from working relationships is surprising and it seems more sensible to see this as coerced say by the fear of unemployment. Besides, an exchange which takes place under the fear of unemployment, may not be a gift, with its benevolent meaning, but a 'tribute' to employers. Additionally, even if we interpret the phenomenon of unpaid overtime according to the gift model, the gift exchange stops with the employers after they have received what they wanted (unpaid overtime). We do not see any counter-gift that is greater (e.g., a much higher wage) than the gift already received.

Employees and employers' unequal socioeconomic position prevents them from benevolently exchanging gifts. Exchanging gifts is suspicious if we have in mind that employees own only their labour power, while the employers own means of production. This also means that employers can use human resources techniques and strategies to manipulate and 'convince' employees to over commit. These incentives may be a material but they can often be 'moral' or 'idealistic' as with ideas of workers acting as entrepreneurs. Employees can then feel 'obliged' to respond to these offers, by providing unpaid work. It is not surprising then that Anger's (2008), attempt to test gift exchange theory did not find it "capable of explaining earnings differentials between workers".

- *Unpaid overtime as a result of organisational mechanism*

Seeing unpaid overtime in the context of changes in organisational mechanisms seems a much more appropriate way forward (Granovetter, 1985; Uzzi, 1997). But we still need to understand what lies behind these changes and why they take the form that they do. The main reasons behind rising unpaid overtime may lie more in the capitalist restructuring which has been taking place. But this needs to be understood on the basis of a different philosophical and methodological approach to those previously discussed.

4 Working time extension and unpaid overtime: potential explanations

The difficulty of all the approaches that we have examined is that they look to explain unpaid labour in terms of its mutual advantage to both the employer and the worker. But from a political economy perspective this is not necessary. Here the capitalist's profits come from workers' unpaid labour. The greater this amount the greater the potential profit. Absolute surplus value extraction takes place when the whole working day is extended, keeping the wages at the same (at least) level. Consequently, unpaid overtime is a typical form of absolute surplus value extraction; the working day is extended, while wages are kept stable.

In the labour theory of value the extraction of relative surplus-value has a limit; a minimum wage has to be paid to the worker for his survival. On the other hand, absolute surplus value has a limit too. No worker can work more than 24 hours per day, since a day has only 24 hours. However, capitalists try both to pay low minimum wages and to prolong the whole working day. In Marxist terms the exploitation rate or surplus value rate, s/v , can be intensified to a degree.

At the same time, capitalists in order to gain grounds over their competitors (either intra- or inter-sectorally), try to introduce new technology by minimising the number of workers and increasing the value of constant capital. Thus, the organic composition of capital c/v has a tendency to increase intertemporarily. Additionally, there are no obvious restrictions which set the limits for this rate not to increase. Consequently, the rate of profit, which is defined by the rate of exploitation (surplus value rate) over the composition of capital tends to fall.

$$p = \frac{s}{c+v} \Rightarrow p = \frac{\frac{s}{v}}{\left(\frac{c}{v}\right) + 1}$$

where p = rate of profit, s = rate of surplus value, v = variable capital (wages), c = stable capital.

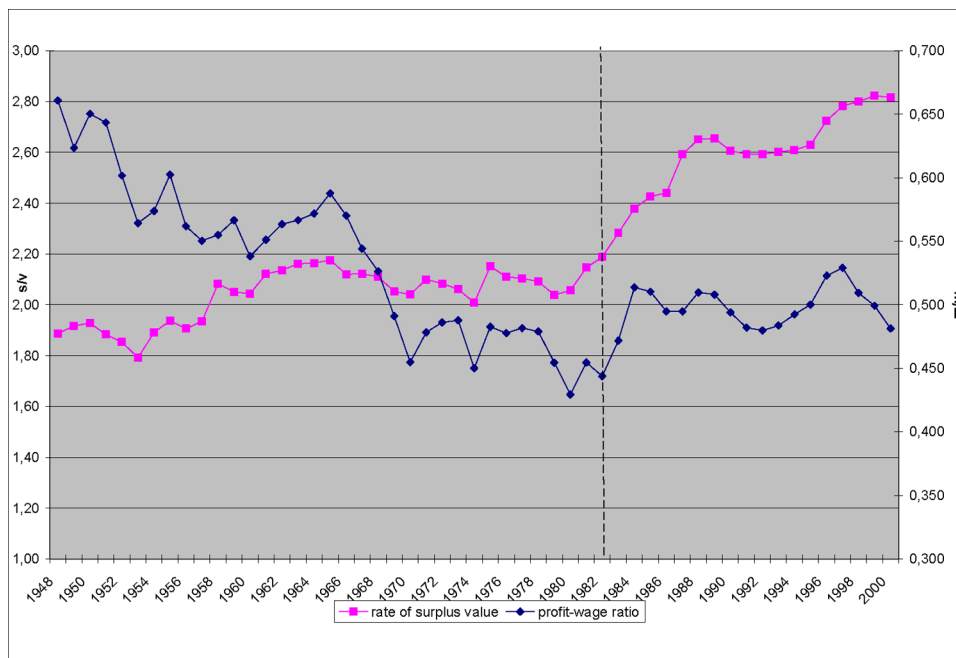
If we allow for there being an inherent conflict of interest over wages and profit then the logic of unpaid labour becomes clearer as does the potential struggle over hours of work. The question then becomes why we observe this tendency of working time extension (and especially its unpaid part) in the last 15–30 years – as opposed to a reduction in previous periods?

During the last 50 years, and especially since the mid 1970s, it has been argued that the rate of profit has been falling. This is suggested by a number of commentators to have been at the core of changes in capitalism and its processes. According to Harman (2007) and Maniatis (2012), there is evidence of this tendency of rate of profit to fall, based on data from USA, Germany, and Japan. Capitalists, in order to balance the effects of a falling rate of profit (p), among their other initiatives attempt to increase rate of surplus value (S/V) (Figure 1).

After the 1973 extended recession, and from the mid 1970s, it has been argued that, capitalists in order to balance this falling tendency in their rates of profits have been under pressure to restructure their businesses. During restructurings, different geographical, financial, product and organisational changes can take place (Silver, 2003). Capitalists move their business geographically, consolidate them, develop new products, or improve techniques and ways of exploiting the working class.

- *Changes in the organisation of production – capitalist restructuring*

Capitalist restructuring takes place in order to eliminate fixed costs; production units are transferred to places of the world where their costs are smaller; new cheaper products are introduced in the market; the huge factories of the past give way to smaller enterprises (Smeds, 1994; Tauss, 2012). Sub-contracting has increased for the same reasons. Subsequently, after the creation of lean enterprises and the elimination of fixed costs, the number of workers that are necessary has also decreased creating the possibilities changes in the labour process too. Tasks higher in quality and quantity are undertaken by fewer workers; the old Taylorist-Fordist system in a lot of industries (especially in services) shifts to what some scholars call Post-Fordism. Consequently, the material conditions are created in order to facilitate the increase of unpaid working hours.

Figure 1 Rate of surplus value (s/v) and profit-wage ratio (π/w) (see online version for colours)

Source: Maniatis (2012) based on data from BEA, NIPA, Π = net operating surplus, Table 1. 10, line 11, W = compensation of employees in private industries, Table 6.2, line 3

- *The introduction of information technologies*

Capitalist restructuring has also given a push to technological improvements. The introduction of information technology has changed the organisation of production. However, despite what many scholars of the Theory of New Economy maintain, it has not been responsible for changing the whole architecture of capitalism. The ‘Solow Paradox’ (Solow, 1987), suggests that although there has been a great investment in information technology, this has led only to an extremely small increase in productivity of labour and the sphere of production has changed to a smaller degree.

But in the sphere of exchange (more than in the sphere of production) these new technological accomplishments have been adopted to a greater degree. In the so-called service sector, information technology has led, especially in administration and logistics, to greater tasks being undertaken by a smaller number of workers with a consequent intensification of labour. The introduction of information technology here plays a significant role in enhancing the capitalist control of the labour process. In consequence, an increase in the rate of exploitation is achieved. At the same time, it enables economies of scale in the use of constant capital. In this sense, flexible labour represents an outstanding restructuring of the labour process. With flexible labour a new balance between relative and absolute surplus value develops. During recent years absolute surplus value extraction has been strengthened (Mavroudeas, 1999). One direct method of this extraction is altering total labour-time. In this case, this extraction comes from working time extension and especially by unpaid overtime. However, it should be noted that (although further research has to be done) that during the current crisis, in USA and

Europe working hours seem to have been reduced, giving again the determinant role to relative surplus value extraction.

- *'Tertiary sector' labour gains grounds over 'secondary sector'*

Some scholars also argue that tertiary sector workers, service sector workers, highly educated or white collar workers work more long hours (both paid and unpaid) than blue collar manufacturing workers, skilled and unskilled. It has been argued that the 1990s profit expansion was based on the overtime labour of manufacturing workers, and some even suggest that manufacturing overtime reached record levels (Hetrick, 2000). This indicates the need for further research into the question of whether the phenomenon of unpaid overtime is taking place primarily in 'tertiary sector' or non-productive jobs. We will hypothesise that unpaid labour is more prevalent in the tertiary sector. There are physical limits which do not permit an increase in overtime in manual jobs, such as in the majority of 'secondary' sector jobs in manufacturing industry. Manual work cannot be as easily extended as mental. Moreover, in last decades, the tertiary sector has increased in comparison to the secondary one so that the sphere of exchange has gained grounds over the sphere of production. Consequently, the numbers of 'mental' workers are greater making the phenomenon of unpaid overtime a possible potential for the majority of employees unlike in the era when manufacturing employment dominated.

- *Deregulation of the labour market*

Capitalist restructuring has also been used by states to reduced the freedoms and legal rights of organised labour. After the 1973 recession, and the years of the implementation of Keynesian policies by governments, employers successfully pushed for less state intervention in the labour market. The deregulation of working relationships, especially since the 1980s, has taken place on a widespread scale. Deregulation made cheaper overtime payments, or no overtime payment at all (unpaid overtime) possible. The UK and the USA were the pioneers in this labour market deregulation, initially by making working relations more flexible through the implementation of laws and acts that restrict labour unions' bargaining power (Thatcherism and Reaganomics). But there are continuing examples which reinforce this deregulation such as work-sharing, 'flexicurity', the distinction between active and inactive working time.

- *The weakening of labour unions*

Capitalist restructuring and the deregulation of the labour market have also had their impact on labour unions. The labour process has been turned into a more competitive than cooperative one with the Fordist 'chain' of workers giving way to groups and employees who compete more with each other. Additionally, in the UK labour market deregulation began with an attack on Trade Unions (Thatcher's Trade Union Acts of the 1980s). Historically we have seen that the reduction of working time was included in the demands of organised workers. The weakness of trade unions' bargaining position and a strengthening of employers' position is therefore important. But historically labour unions have also served both as mechanisms to transmit workers' demands and mechanisms to absorb demands and to set the balance between capital and labour in favour of the former. In considering the weakening of labour unions we need, therefore, to focus both on unions' participation, and on unions' demands and policy.

Trade unions not only play an important role in the whole economy, but also a particular one in each industry and sector. Unionised workers in the same industry can achieve some rights in comparison with those who are not unionised. “Workers who belong to unions earn higher wages, work few hours, receive more training, and have longer job tenure on average, than their non-unionised counterparts” (Aidt and Tzannatos, 2002). Scholars who study the phenomenon of unpaid overtime have also found that participation in unions increase workers’ possibilities of receiving overtime premia (Bell et al., 2000).

The available indices concerning unions such as union density, bargaining centralisation, demands etc all point to the recent weakening. In Europe and the USA there has been a serious decrease in union density. His weakening of bargaining power has had consequences for working time extension and particularly the rise of unpaid overtime. In 1977, according to USA data, for example, over one in five union members had collective bargaining agreements which restricted mandatory overtime. But, as many unions have lost membership, and in particular those in the manufacturing and communication industries, workers’ bargaining power to obtain such contract provisions may have diminished (Golden and Jorgensen, 2002).

5 Conclusions

Working time was always a very important part of economic analysis. Until now scholars have tried to explain the causes of working time *reduction*. However, in recent years the opposite tendency has appeared. Working time has been observed to have increased; at least until the start of the current crisis. Consequently, those schools of economic thought which argued that working time must decrease face theoretical problems. In particular, not only has working time extension appeared, but so also has the phenomenon of unpaid overtime. This has stimulated neoclassical economics to find new approaches which can explain this phenomenon: theories of differed compensation, human capital, Pareto improvement and signalling emerged to explain unpaid overtime. But in our critique, we have argued that these founder because they consider that labour is a simple input in production process, neglecting its social character. Even in their own terms these theories lead us to cast doubt on the basic neoclassical assumption that the labour wage is the reward for labour’s contribution.

Instead we argue that working time extension generally, and unpaid overtime in particular, are forms of absolute surplus value extraction. In addition we have observed this phenomenon, especially in recent decades, has arisen for particular reasons which we can relate to the decline of the rate of profit. This has pressed capitalists to implement radical changes in the production process by changes in production organisation; the introduction of information technology in the sphere of exchange; the rise of the service sector over productive one etc. This restructuring has also been accompanied by institutional changes with labour market deregulation. The weakening of unions during recent years due to these structural changes has led workers to a situation of more restricted bargaining power. Consequently, employees cannot make as effective demands for a possible working time reduction or to be rewarded for the labour which they ‘have offered’. All these factors play a determinant role in working time extension and particularly in the rising phenomenon of unpaid overtime.

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