

## THE THREE LOGICS OF SKILLS IN FRENCH LITERATURE

© NSW Board of Vocational Education and Training

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ISBN 0 7310 7920 5

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## THE THREE LOGICS OF SKILLS IN FRENCH LITERATURE



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# TABLE OF CONTENTS

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INTRODUCTION: THE QUESTION OF SKILLS	1
THE DUALITY OF THE WAGE EARNER MODEL	4
Some historical foundations of social values regarding education and work	4
Dependant labour and the nature of the labour contract	4
MOBILISING LABOUR POWER BY IMMOBILISING WORKERS: THE ROLE OF TECHNICAL SKILLS	7
Dependent labour and escaping workforce	7
Active proletarianisation and welfare	7
Fixing workers: Internal labour markets and classification of occupations	8
IMMOBILE WORKERS, SKILLS AND PRODUCTIVITY	10
Theoretical foundations of labour productivity improvements	10
Skills, technical change and labour productivity	10
Economic restructuring and effects of composition	11
Prescribed and real work	13
MOBILISING LABOUR POWER THROUGH MOBILITY OF WORKERS: THE ROLE OF BEHAVIOURAL SKILLS OR COMPETENCY	15
The social critic of Taylorist technology and Fordist society	15
Labour management methods: integrating the social critic	16
Competency as a new method of subordination	17
Employability and mobility: the skills-employment trade off	19
EDUCATION AS AN AUTONOMOUS TREND	22
The autonomy of education hypothesis	22
General and vocational education policy	24
Continuing and training policy	25
The education-welfare trade off	26
THE THREE LOGICS OF SKILLS	28
An analytical framework	28
Addressing the question of skills	29
Some lessons for VET policy	30
TABLE: New entries in the labour force	31
CHART: The three logics of skills. Principal findings	32
REFERENCES	33



# ACKNOWLEDGEMENTS

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This article is the fruit of favourable wind blown by the University of Sydney. My thanks go to Ron Callus and John Buchanan, respectively Director and Deputy Director of ACIRRT, and to Gavan Butler and Evan Jones from the Political Economy group of the Department of Economics, who have invited me as a visiting scholar to the Faculty of Economics and Business. I am very grateful to Ron Callus and the whole team at ACIRRT for their kind welcome, and for material and scientific support. ACIRRT has given to me the opportunity to participate in a research project on the changing nature of work and vocational education and training policies.

The present paper is my contribution to this project. Here, I thank the whole team involved in this project, and particularly John Buchanan, Project Manager, Chris Briggs, Gillian Considine, Marilyn Bryce, Jim Kitay, John MacIntyre, and Kay Schofield, for very useful discussions and meetings. I am very grateful to Marilyn Bryce for her assistance in tracking and updating the information I have needed. I would like to thank Linda Cowan who has been a very charming room mate, and gave me useful insights into the Australian labour situation. Finally a special and great thank you goes to Ian Watson who made extensive and very helpful comments on this paper and with whom I had in-depth discussions on labour matters. His kind patience has been tested by long working sessions to correct my English. Of course the responsibility for the opinions, shortcomings and errors contained in this paper is mine alone.

# INTRODUCTION: The Question of Skills

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The topic of this paper is to tackle the question of what skills are made of. This question comes from a range of interrogations raised by analyses and policies regarding employment and education. Do the contemporary conditions of economic growth require lower or higher skills? Does the global situation show down-skilling or up-skilling of the population? Do we need more specific or more generic skills? Are comprehensive VET policies required to compensate for market failures in matching skills demand and supply, or should market mechanisms be boosted? Such interrogations have led to contradictory answers. The preceding dilemmas not being solved, labour and educational policies have had to face their responsibility of decision-making without reliable bases. Actually, the question of skills has come to the fore as a result of policies inspired by three bodies of theoretical positions.

The first position comes from an holistic view of current economic and social evolution. Skills improvements, it is said, foster economic growth and income per capita. Better education and higher skills would be the new conditions of economic growth in a high tech, globalised and competitive economy. Behind this contention lay two assumptions. The first one is that labour productivity, hence income per capita and economic growth, increases with skills levels, because skills are a limiting factor of technological improvements. This assumption has been largely forged on the basis of neo-classical and endogenous growth theories (Solow, Romer, Lucas). The second one is that, more than before, comparative or competitive advantage of nations in a globalised economy depends on the level of education, knowledge and skills of their population. This assumption has been largely forged on the basis of the 'factors proportion' theory in economic international relations (Hockcher- Ohlin, Samuelson, Porter, Reich, Wood).

The second position comes from a micro-economic view of current transformations. Corporate performances, it is claimed, depend on technology and organisation of enterprises, and therefore on the skills of their labour force? This assertion relies on the assumption that competitive power and corporate results of enterprises increase according to their innovative capabilities and these in turn are functions of the level of skills of their workforce. Schumpeterian and Neo-Schumpeterian theories mainly underpin this stance (Freeman, Winter, Dosi).

The third position comes from an individualistic view of income formation. Better educated people can, in the long term, obtain higher personal incomes and reduce the probability of being unemployed. This assertion is based on the claim that labour incomes are related to labour productivity and that labour productivity is related to education and skills levels. The neo-classical theory of income distribution and human capital theories (Becker, Schultz) are the foundations of such a claim.

Those three positions are mutually reinforcing. Individuals, pursuing better incomes, are led to invest in their own education. In turn, they provide more skilled labour to enterprises. Therefore, enterprises can improve their performances, and overall economic growth is boosted. This cycle ends in increased individual incomes. Such a virtuous cycle has been expressed by the notion of a knowledge society, notion endorsed by political milieus<sup>1</sup>. More comprehensive and bold educational policies are designed in the pursuit of the knowledge society and are viewed as key levers of economic efficiency and social equity.

We will not directly discuss here these three sets of positions just outlined, nor other related theories such as the influential Finegold and Soskice thesis of the existence in UK of a 'low skills/low quality equilibrium' (Finegold and Soskice 1988), neither their development and critics (Keep and Mayhew 1999). Rather, we will focus on the issue of the definition of skills. This definition is crucial for assessing the evolution and transformation of skills and their impacts on economic performance, among them labour transformation and labour productivity. This is a major endeavour to be undertaken, prior to any diagnosis of their alleged growing or declining trends and to any verification of an alleged correlation between skills and labour productivity paths. How to define, measure, and compare skills through space and time, if their contour and content are not properly defined and if their nature changes through time? Every scientist knows perfectly well the necessity of clear cut and relatively stable definitions of concepts for analytical and measurement purposes. What kind of approach of skills to adopt, whether in a firm or a government, if there are no reliable analytical tools to explain what skills are made of, how they can be measured and how they evolve? How can we be certain that vocational and training policies will improve skills, if we are not able to understand the nature of skills and the ways their are acquired?

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<sup>1</sup> See for instance: (E.U Commission 1994), (E.U Commission 1995), (DTI 1998).



# INTRODUCTION: The Question of Skills

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It is our belief that most of the current dilemmas concerning education and VET policies arise from a very loose definition of skills. Most of the time, attempts to define skills adopt a 'substantialist' stance. For the purpose of measuring and comparing skills, of assessing their evolution, of estimating their supply and demand in a market, they have been objectified. It rests on the postulate that skills would indicate general and objective individual abilities to perform a given task, and such abilities would encompass knowledge and know-how, acquired through education and practice. Of course, they would encompass also innate individual qualities, whether intellectual, relational, emotional or physical. Of course, skills are defined in different ways according to which social actor speaks.

However, in the substantialist stance, they seem to be too personal or too subjective qualities to be successfully objectified and then taken into account. The problem is that trying to objectify the subjective is to miss the point. In the substantialist approach, skills are deprived from their personal and social components, and cannot therefore be understood, nor defined. A better starting point is assuming, as Naville suggested three decades ago (Naville 1965), that skills are social relations, and mainly labour relationships and, as such, are socially built and defined. Therefore, changing social relations and changing labour relationships may give skills different contents. Two main social spheres are involved in this definition, those of work and education. Our purpose here is to examine how French literature on work and on education implicitly or explicitly defines a concept of skill and addresses the question of skills.

In France, for historical reasons, worlds of work and of education are two separated spheres of social reality. The same can be said regarding French literature. Two disconnected streams of writings, if not of thought, respectively address the French labour question and the French education question. Despite this duality, we will try in this brief survey to tackle the problem of the links between these two questions. There is little doubt that they are actually related, even through indirect and complicated ways. In our view, an attempt to relate both contributions may give more insight into how changing labour relationships in contemporary societies entail new social definitions of skill, and new social roles for education and training. New discourses, in scientific and political spheres, regarding the coming of a knowledge society cannot be decoded, when it is assumed that this kind of society responds to an historical, technological or otherwise, necessity. We rather claim that those discourses reflect new social relationships emerging from dramatic changes in social structures and values, and that they are part of an undertaking, close to completion, of legitimisation of a new distribution of power.

The real challenge of scientific analysis is to investigate how social and political interactions transform contemporary conditions of economic growth, and to acknowledge that current changes, in particular in work and education domains, do not constitute an historical necessity. Resulting from social, political and economic co-operation and struggles, the outcome of these interactions can be neither foreseen nor predicted and may differ from one society to another. In both fields, normative positions and political recommendations should always acknowledge that labour and education are core social relations, stemming from history and embedded in institutions and social norms. The analysis advanced in this paper mostly relies, but not exclusively, on French streams of thought based on these premises. Although relying on a specific, but not isolated, history, French literature gives some insights into the tight relations between skills and work and into their recent transformations, insights which, although specific, may be useful in other contexts.

Jurists, facing difficulties in reconciling labour law with strong foundational political principles, have helped us to understand major characteristics of the wage earner model in more depth than conventional economic and sociological approaches have. They underline the importance of its duality. They also suggest the idea that the mobility of the labour force is a key issue to investigate in order to explain the current transformations of labour relationships and correlated transformations of skills. The first part of this paper examines their contribution.

Historically, an initial form of the wage earner model has been shaped in such a way that it could drive the labour force into new industrial activities. This initial form did not really succeed in fixing reluctant workers into forms of dependent labour as the second part below will show. Here, we will argue that welfare states, internal labour markets and labour management in businesses forged a new, 'mature' form of the wage earner model which met this objective much more successfully.

The third part addresses the difficult question of the relationships which may exist between skills and labour productivity. It emphasises that labour productivity is largely determined by working intensity, allowing workers a free hand to influence the outcomes of a given technology.

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The fourth part tries to explain why, based on this small liberty, workers' rejection of Taylorist labour organisation led to a slow down of labour productivity improvements from the end of the 60s until the 90s<sup>2</sup>. Workers reluctant to deliver labour and their obstruction to labour allocation could not be overcome but through the implementation of new technology, new institutional arrangements and new labour management methods. These were designed to re-mobilise workers in working processes so that they would deliver their labour power in a way expected by employers. Skills had to be socially redefined, and educational policies had to be reshaped in order to facilitate those economic and social transformations.

The argument of the autonomy of education from economic determinants is established in the fifth part. It implies that a key component of skills – education – is defined according to non market procedures. This autonomy from economic regulations appears to explain why education has become a leading factor of growth and social transformations. Observing how labour mobility and related forms of work have been treated in different periods of time by economic, social and political forces throws new light on understanding what skills are made of. The final part tries to summarise the findings and some of their implications for VET policies.

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<sup>2</sup> This has been documented by numerous investigations, in France by the 'Ecole de la régulation' in particular. The observation of a change of 'productivity regime' is of paramount importance because this change is related with transformations of labour relationships during this period (Mounier 2001).



# THE DUALITY OF THE WAGE EARNER MODEL

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## Some Historical Foundations of Social Values Regarding Education and Work

The French Revolution established key national political values and principles that have invaded all aspects of social life and exerted an indelible mark on French society and, throughout modern history, on labour and education. Permanent tensions between individualist and holistic views of modern society stem from two strong and contradictory assertions inherited from the French Revolution.

According to the first, individualist, view a democratic society as a whole proceeds from the individual. It is the result of a free contract between a group of people who have decided to live together. Hence, only a rational individual, provided he/she is free and sensitive to social justice and solidarity, can underpin a rational society. This influential political philosophy in Europe was counterpoised by the German one, which asserts the opposite relation between the individual and the society. An individual has no choice because he is not given light without history, without parents, even without language. He comes to the world inside a pre-existing community and inherits its language, customs and values. A strong opposition between rationalist and romantic foundations of political and social thought, and as such of social order, have fed long lasting and fierce debates between and within both countries (Finkelkraut 1987).

The second assertion of French political thinking is a correlate of the first one. The state, provided it proceeds from the individual through a democratic political regime, is the only institution able to express and protect the rationality of the individual. Hence, the main task of the state consists in building the legal and organisational framework, enabling the individual to exert his/her rationality, that is his/her freedom, sense of justice and of solidarity. Since the French Revolution, 'liberty, equality and solidarity' have been the three intangible republican principles, implemented in every aspect of individual and social life. In this view, state intervention cannot be precluded, because it is the only power able to defend the weak from the powerful<sup>3</sup>. In fact, possible tensions between those three principles have been ruled out by subordinating freedom for all, to equality and solidarity. Inevitable contradictions between an individualist view of society and a socially recognised necessity of a strong and centralised state is eased by this subordination.

Throughout modern French history, political endeavours to apply these principles in both worlds of work and education have raised numerous questions. These questions have mainly arisen from a permanent difficulty of reconciling those political principles – as definitive and compulsory social norms – with the involuntary and unexpected results of social reproduction. In such endeavours, conflicts, compromises, and the interplay of endogenous and

exogenous forces, have forged national specific features of work and education, and of their institutions and organisations.

## Dependent Labour and the Nature of the Labour Contract

In French law, the labour contract is postulated as a mere trade transaction between two equal persons. The interest of jurists in further defining the labour contract rose from the difficulty in reconciling this legal view with the implementation of republican principles of liberty, equality and solidarity.

Jurists have been inclined to scrutinise the linchpin of labour relationships which is the wage labour contract (Lyon-Caen 1992; Supiot 1994; Aubin et Bouveresse 1995; Supiot 1998). They have also investigated ways to enlarge the enforcement of labour law into non standard labour situations (sub-contracting, externalisation), independent labour and executives' and managers' status (Vacarie et al ii 1996). In doing so, they largely contributed, and complemented, economic and sociological approaches, and led to a better understanding of the nature of dependent work, whose dominant form today is waged labour. With those perspectives in mind, jurists have it found useful to distinguish between two major components of the labour contract.

First, there is the 'property' dimension of the labour contract. In signing a labour contract, the worker puts at the disposal of the employer the only tradable good he/she possesses, that is his/her labour power, in fact his/her brain and muscles, i.e. body. It is what the worker possesses on his own and can for that reason alienate. In a legal perspective, labour power is a thing, an asset, and can be likened to a tradable good. Hence, it is subject to property rights law. Labour power is sold and bought on a market, and exchanged against money as it occurs in general transactions on common goods. This process of objectification of labour power is a necessary condition of the creation of a labour market, because it disconnects the labour power from the person of the worker. In order to obtain an abstract labour power, subject to measure, calculation and exchange against money, it is necessary to forget, even to hide, his/her personal origin. This is partially achieved by ownership rules for goods. Ownership rules metamorphose into an anonymous good the work done, which belongs to who makes it in that sense it bears

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<sup>3</sup> The French revolutionary Lacordaire used to say that 'between the weak and the powerful, that is freedom that oppresses and the state that liberates'.

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personal features such as skills and know-how, personality, and attitudes. This good, as all owned goods, can pass from hand to hand, that is from the first hand owner, the worker, to the 'second hand' owner, the employer. There is here a legal necessity of separation between labour power that an employer buys, and the person who provides it, because legal principles establish, that a person cannot be alienated on a market or by any other means. This separation creates the fiction that work is independent from the person of the worker, and that it can be measured, paid and exchanged independently from its personal origin and components.

Nevertheless, it remains a fiction, precisely because in the transaction, the person of the worker cannot disappear as if by magic. Karl Polanyi and Hanna Arendt should be read again on that respect (Polanyi 1957; Arendt 1998). In fact, the actual person of the worker is inherently involved in the labour contract.

For our purpose, we have to emphasise that standard economic analysis only understands this fictional dimension of labour, because it fits in its general conceptual framework. Not only is labour a tradable good like any other, but skills received the same conceptual treatment. Skills refer to abilities and know-how of workers in exerting their labour power on material in order to transform it. They are made of particular techniques attached to particular tools, inputs and operations. In the perspective of the property dimension of the labour contract, skills cannot be anything but technical.

The second component of the labour contract goes beyond the property dimension: it is its individual or personal dimension. In that respect, the labour contract is subject to the law of persons. In French law, a contractual relation is the expression of free wills between two equal persons. Yet, in the wage earner relationship, the labour contract directly relates two persons, the employee and the employer, but in an uneven relationship. The object of the contract is to put at the disposal of the employer the labour power of the employee.

However, the labour contract cannot, once and before hand, stipulate the exact conditions in which labour power will be delivered and used. It depends on the concrete and changing conditions of the working process; it depends also on the employee's behaviour. For these reasons, the labour contract cannot, and in fact does not, specify the real conditions for its fulfilment. In that sense, the labour contract is incomplete (within the meaning of contract theory). Therefore, a necessary condition of executing provisions of the labour contract, that is the use of labour power by employers, is the subordination of the person of the employee to the person of the employer. This subordination is put into practice through the hierarchical organisation of the workplace. Economic analysis does not

pay sufficient attention to this facet of the wage earner model.

This dimension is crucial for our purpose here, because it allows to analyse skills as a contradictory device to organise corporate hierarchical organisation. In that respect, skills are composed of personal abilities to act in a given hierarchy, to command and obey, to act and collaborate, to solve problem and resolve conflicts, and to adapt oneself to a social environment. In other words, they are personal qualities to cope with interpersonal relationships required by the division of labour<sup>4</sup>.

The personal dimension of the labour contract actually contradicts legal principles, according to which one person cannot alienate his/her freedom in exchange for protection or money. Yet, this is exactly what the labour contract does.

For jurists, this contradiction between labour relationships and the general spirit of the law cannot be solved in the wage earner model. It only can be mitigated to a certain extent, and sometimes compensated, by protecting the person of the worker from the effects of the execution of the labour contract. Historically, protecting the person of the worker from unacceptable consequences brought about by the wage labour relationship has been a way of reconciling the compulsion of the labour market with legal principles.

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<sup>4</sup> We are now able to define more precisely some useful terms for analytical purposes. Labour power means the quantity and quality of work that a singular person, a group of person or an entire population can deliver. It has to be distinguished from the person of the worker who delivers it. Labour transactions are actually selling and buying labour power, and labour prices are prices of labour power. A fundamental and controversial problem of wage earner societies is that the price of the labour power is nothing but the income of the worker who delivers it. Because standard labour economics, in using the general and abstract word of 'labour', does not distinguish between the two dimensions of the labour contract, it makes acceptable what by all means is not, that is that workers' income may tend towards zero if the labour power price tends itself towards zero. The same problem arises with the standard term of 'labour allocation'. In my usage, labour force is a synonym for active population or the working age population, that is the number of potential workers. The working age is a social norm, most of the time enforced by law, so that the labour force is determined both by demographic structures and social norms. The workforce is the number of employed workers, that is the part of the active population which actually deliver its labour power (in order to simplify we assume that the whole workforce is employed, because there is no conceptual difference between employed and unemployed). The person of the wage earner will be designated by the terms of worker or workers, whatever his/her/their position and function in the working process. In our view therefore, 'allocation of the workforce' and 'labour allocation' have the same meaning which is the distribution of workers between jobs. These two terms have consequently to be distinguished from that of 'labour power allocation', in virtue of the duality of wage labour relationship. This distinction between the distribution of workers and the distribution of their labour power between jobs leads to the crucial economic and social issue of the mobility of the person of the worker (workforce allocation) implied by their labour power allocation and mobilisation in working processes.



# THE DUALITY OF THE WAGE EARNER MODEL

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Legal protection, which results from social conflicts as well as from state initiatives, has consisted of confining the effects of the labour contract to the boundaries of the workplace, preventing its possible encroachments on the worker's entire life. On the one hand, legal protection has prevented excessive working hours and lifetime work, and the wearing out or damaging of the body of the worker in the workplace. When those risks could not have been avoided, they have had to be compensated. On the other hand, legal protection has sheltered the worker from those economic risks inherent in the labour relationship and particularly those related with its suspension or termination, such as sickness, unemployment or retirement. In that respect, labour law has helped workers recover collectively those degrees of freedom which they had lost individually.

However, in the same move, it has introduced elements of statute into the contractual labour relationship, which has been obliged to include social entitlements for wage earners. By integrating within labour law a set of rights and obligations for the two parties involved in the labour contract, labour relationships have become more

independent from the free will of these parties. Through such legal provisions, employers' freedom and power have been strongly challenged in the workplace and even in the labour market. In particular, two sharp legal principles of labour law express the intention of the legislator to protect employees from employers' power. One is a principle of hierarchy of bases for labour law and the other is of non-contradiction between them. Employer's unilateral decision in the enterprise, provisions of individual labour contract, labour agreements at the level of the enterprise (in that order) are subordinated to collective agreements, to case law, to labour code and to general law (in that order). The labour contract has become not much more than a trigger for the implementation of legal provisions. Little by little, employers have lost their freedom to use the labour power they buy (and the workers they hire), because of the domination of elements of statute in contractual relations. As we will see below, this has had an adverse impact on labour costs and profits. Reversing this trend, by removing statutory elements from the labour contract, has been the main endeavour of employers and of neo-liberal political parties for the last twenty years.

# MOBILISING LABOUR POWER BY IMMOBILISING WORKERS: The Role of Technical Skills

## Dependent Labour and Escaping Workforce

Historically, employers have always found difficulty in mobilising the workforce under the form of paid labour, because this mobilisation has implied the subordination of the worker himself. A recent book of Moulier Boutang has found the historical roots of such a difficulty (Moulier Boutang 1998). In an original and comprehensive investigation of the forms and determinants of international labour migrations, the author claims that wage labour has only been a transitory form of dependant work in the history of capitalist societies. He observes that from the 16th century to the mid 19th century, semi independent labour (putting out systems, Verlag, etc.), waged labour as well as slavery, indentured labour, and 'second serfdom' in Europe and its colonies have coexisted together, and have brought in and put to work the bulk of the needed workforce for capitalist sectors<sup>5</sup>. Those forms of dependent labour have been necessary to mobilise the workforce, because potential workers always tried at that time to escape from this form of work. In order to reverse this uncivilised habit, all means have been used to lock workers into the working process.

Stability of the labour force could at first be obtained through costly political coercion, borrowing slavery, serfdom and indentured labour forms from the defunct feudal system, and reviving them in the colonies as well as in 17th and 18th century Eastern European countries. Those forms of dependent work had to be replaced afterwards by more economical economic means, when transactional costs of political coercion begun to outweigh advantages, and become unbearable for employers and states. The 'free wage earner model' offered this economical means.

In relation with other forms of dependent labour, its novelty and uniqueness is that it contains a right for workers to breach the labour contract. This right has been more often conquered than granted<sup>6</sup>, and since then in France, it has been for political reasons irrevocable and by law inalienable. Indeed, it is a major attribute of citizenship, which institutes an individual liberty to choose work and employer. Moulier Boutang observes, and it is where his argumentation comes from, that in European countries, as opposed to countries of settlement, migrant workers have been, and still are, in a situation of quasi forced labour, because they are not granted with any attributes of citizenship. Their staying being attached to a particular job, they have no right of choosing jobs and employers, that is no right to breaching the labour contract, at least for a previously fixed period of time. In ultimately substituting free labour for unfree labour, the new right of breaching the labour contract has actually reintroduced the inherent instability of workers. From the 19th century onwards, the problem has been to mitigate the adverse effects of citizenship rights on workers' availability for work.

In the wage labour model, migrations have been a part, but only a part of its solution<sup>7</sup>.

Historically, settings of welfare measures and of internal labour markets have been two crucial means to lock a free labour force in working processes. However, as Moulier Boutang stresses, the 'free version' of dependent labour, which is the wage labour model, remains a historical and thus reversible form of dependent labour. Although until now social forces and the law have succeeded imposing free labour to employers, they could not extirpate entrepreneurs' favour for unfree labour. Thus, the wage earner model has always been a fragile labour status, which existence remains conditioned by the balance of social powers<sup>8</sup>.

## Active Proletarianisation<sup>9</sup> and Welfare

The first welfare measures of the late seventeenth century aimed at enrolling the unemployed, the poor and the vagabonds into the workforce. Unwillingness or resistance to enter a labour contract was treated as a crime, and a clear cut distinction was made between those who would not and could not work. National social protection provisions, under assistance schemes, only applied to those who could not enter the labour force (Foucault 1961; Foucault 1975; Castel 1995; Giddens 1994).

Taylorist labour organisation can be interpreted in this framework, as a method of reducing the economic costs of labour mobility. A separation between workers of conception and workers of execution has allowed the deskilling of jobs (Freysenet 1974; Coriat 1982; Coriat 1989). The reason of this form of labour organisation was to ease the hiring new entrants, from farming or foreign backgrounds, in order to

<sup>5</sup> This observation proposes a much broader interpretation of the first phases of capitalist development in Europe, than Mendels' approach of proto-industrialisation, '-industrialisation before industrialisation' – does.

<sup>6</sup> In French History, this right is granted by the national constitution and the declaration of human rights and comes from the revolution intention to abolish trade corporations as well as slavery in the colonies. In 1791 'Le Chapelier law' abolished corporations and jurandes on behalf of liberty of work. However, declaring associations illegal, it also made illegal unions and strikes. Slavery was declared illegal after the Revolution, re-established afterwards, and finally effectively abolished after 1852 (law proposed by Schoelcher).

<sup>7</sup> It is not often stressed that France has been a land of high immigration since the nineteenth century. At the beginning of French industrialisation, England had provided French manufactures with the bulk of engineers and skilled workers. With some fluctuations through time, migrants workers permanently represent about 15% of the total workforce (Marchand et Thélot 1997).

<sup>8</sup> Numerous authors think that contemporary international flows of capital are attracted by developing countries where international labour standards, and particularly free labour status and provisions, do not apply (Deyo 1989; Brass 1999).

<sup>9</sup> The term is borrowed from Claus Offe (Offe 1984).



# MOBILISING LABOUR POWER BY IMMOBILISING WORKERS: The Role of Technical Skills

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massively recruit unskilled workers and to cope with a high rate of turnover. Nevertheless, this method did not tackle the problem of labour mobility itself. It did not entirely succeed because it only acted on the use of labour power in the working process, and not on the instability of workers. Paternalist forms of management, copied from domestic forms of social relationships (Boltanski et Thévenot 1987), have been a first response to the problem. Loyalty and faithfulness of employees to employers were bought in exchange for some advantages in kind (because money commitments were rarely fulfilled), such as housing, health insurance, off work activities, and even pension schemes. But those management methods were costly and could not yield expected results.

Fordism has been a much broader, systematic and successful endeavour of fixing workers, because it understood that in order to obtain the expected labour power from the worker, the actual person of the worker had to be immobilised in the nets of wage labour. It fought against the congenital instability of the person of the worker, with a huge range of provisions inside the enterprise (internal labour market organisation) and outside it (inter-enterprises agreements of no competition in the labour market, social protection benefits attached to a wage earner position)<sup>10</sup>. These provisions have made dependent labour much more attractive, and even a dream, or at least a position that numerous independent workers have envied (the famous pull effect in internal migration analyses). In the 'salaried society', – another name for a mature fordist society – wage earner jobs, and social advantages attached to them, have been seen as the best way to secure incomes for a lifetime, therefore a model for all workers, and a status to be achieved (Aglietta et Brender 1984).

## Fixing Workers: Internal Labour Markets and Classification of Occupations

The social process of defining skills has to be understood as a device of large enterprises to rationally organise internal labour markets dedicated to fixing workers. This process relies upon the creation and the use of a classification of occupations. This particular tool has the property of controlling labour costs, because it allows for the calculation of the wage bill, used in collective negotiations, on the basis of the minimum wage and the whole scale of wages. The expected wage bill is set according to an expected delivery of labour power. The classification of occupations has at the same time the property of fixing workers thanks to internal promotion and rewards (according to jobs, seniority, motivations and merits), and this in turn enhances labour productivity (see below). That is the property of a wage efficiency-like mechanism.

The classification of occupations, called Parodi, was used after WWII in the French planning system to assess enterprises needs for skills and skills to be produced by the educational system, so that they can match. It was in fact a bargaining process, chaired by the government (the planning agency), between the employers' association, trade unions and representatives of the educational system. The Parodi classification was used as a reference in the elaboration, through collective negotiations, of classification of occupations by industry. In each industry, collective agreements on classification of occupations had to be renewed every five years.

According to the law, the agreement provisions were compulsory for each enterprise of a particular industry. Entrepreneurs actually could cope with their need for skills by training workers on the job, more than by relying on this loose public system of skills planning. Expressing a strong separation, even hostile relationship, with the educational system, employers have permanently argued that schools were useless in preparing skilled workers. Their invariable position regarding education was a way of reaching a better position in these bargaining processes, whether at a national or industry level.

In fact, debates were always focused on a compromise to be found between the trade unions' stance, which was to define qualification as technical skills considered as personal attributes of the worker, acquired in formal education and at work, and the employers' position, which was to define qualification as technical skills required to perform a job.

For employees, technical skills are defined as vocational theoretical knowledge acquired at school. For example, this might include: how to operate a lathe, a milling machine, a chemical reaction, a computer, how to make accounts, to organise a marketing campaign, to raise funds, etc. Technical skills are further defined as improved know-how in the same fields acquired on the job through learning by doing. From employees standpoint, technical skills refer to individual and collective qualities of labour power acquired in their personal history and trajectories. Thus, longer studies and longer working experience would mean higher skills and should be reflected in classification and wages.

The purpose of employers' definition of technical skills from the job perspective is threefold.

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<sup>10</sup> Internal labour markets have increased real wages, thanks to seniority and promotion within internal hierarchy of enterprises. Welfare provisions help to improve working conditions in terms of working time and resting periods, regularity and security of revenue when the worker was unable to deliver his/her labour power, for reasons of business cycles, sickness, accident, pregnancy, unemployment, training, or retirement.

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The first one is to prevent workers' mobility. In determining the set of tasks to be performed in a particular job, and labelling it as requiring technical skills, employers can always argue that a specific job entails specific skills. Thus, they can, and actually do, claim that technical skills are not 'portable', which would be the case if skills were defined from the worker's perspective. Also, as education mainly forges generic skills, – that is portable ones – it is obvious that conceding too large a recognition of skills acquired at school would have negative effects on the stability of the workforce. The employers' stance – that skills are job specific and consequently can only be acquired on the job – aims at hampering or even prohibiting the mobility of the workforce.

The second purpose of the employers' claim is to keep a close control of the wage bill. In defining skills as job specific, employers are not obliged, when they place newly hired or promoted workers on the classification scale, to take into account the entire previous working experience of the worker. Then they are able to underclassify workers. This practice would not be possible if skills were considered as portable skills, as in the workers' stance regarding personal technical skills.

For the same reasons, that we can now better understand, employers cannot but claim that useful and used skills are only those required by and acquired on the job and that technical skills acquired at school are useless on the shop floor. As the general level of education of workers is in rising independently from the needs of the productive system (what we will establish below), wages would have to follow in a parallel increase. Denying the diploma as the primary criterion of workers' skills (or giving them a secondary importance<sup>11</sup>) employers can underrate skills when classifying the workforce.

The third purpose of the employers' definition of skills is to protect their autonomy of decision regarding the capital/labour substitution process by protecting their freedom in deskilling the workforce. Technical innovations, incorporated in machines and production processes, operate in fact a transfer of complex work from skilled workers towards machines. They generally have resulted in a reduction of the skilled labour/unskilled labour ratio and transform the working class into a homogeneous crowd of 'specialised workers', precisely a crowd without recognised skills. Historically, technical change has always aimed at dwarfing the bargaining power of qualified (skilled) workers, whose strength has come at the same time from key positions which they occupy in the work process, and from their unionised collective action (Dockès et Rosier 1983; Dockès et Rosier 1988). Defining skills from the workers' perspective would have made those deskilling innovations much more difficult, or even impossible to achieve.

It is now understandable that employers could not accept trade unions' claims and that the debate between them is a core element of the wage labour relationship. On the one hand, the skills definition impacts on capital for labour substitution, and consequently on labour productivity improvements. On the other hand, the skills definition impacts on the evolution of the wage bill. Personal technical skills of workers would have to be acknowledged in pay roles and employers' monitoring of the pay bill would have not been possible. Thus, skills conceptions are a decisive determinant of distribution of value added between wages and profits.

In reality, the bargaining process of establishing a classification of occupations has always stopped midway between those opposite positions. Thus, skills have always been defined as a variable combination of technical skills from the job perspective and technical skills from the perspective of the person of the worker. Most of the time, and mainly for large corporations, a compromise has been reached, thanks to internal labour markets. As the classification orders the range of jobs from lower to higher skills, internal promotions up the scale of occupations allow a progressively better coincidence between skills required by the job and skills possessed by the worker (the 'Peter principle' is based on this observation).

If we take the jurists' distinction between property and personal dimensions of the labour contract, we can see that an effective, however partial, acknowledgement of personal workers' skills by employers rests on a subjective process of assessment and promotion monitored by the enterprises hierarchy. It is not a simple objective process as the one claimed by workers and trade unions. This latter observation is of paramount importance if one wants to understand the current debate about competencies, as we will see below.

Despite the action of the enterprises hierarchy in defining de facto technical skills through the internal labour market, liberty of entrepreneurs to define skills has been quite limited by the two principles of labour law – that of hierarchy and that of no contradiction – and by welfare provisions designed to check the effect of the labour contract. Let us now assess which effects internal labour markets and welfare provisions, both designed to fix workers and mobilise their labour power, have had on long term labour productivity.

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<sup>11</sup> It has been argued that the public sector, where diplomas are an important criterion of recruitment, has to some extent influenced the private sector in doing so. We will return this question below.



# IMMOBILE WORKERS, SKILLS & PRODUCTIVITY

## Theoretical Foundations of Labour Productivity Improvements.

The current analysis of the relation between skills and economic growth takes for granted the Schumpeterian analysis of development in which economic growth is enhanced by the 'innovative propensity' of capitalist entrepreneurs. This propensity nurtures scientific and related technical changes, which requires new skills and feeds back global or labour productivity improvements, that is an increase of national income per capita. Their uneven development through time provokes upturns and downturns, which have been theorised in long term wave theory. The neo-evolutionist stream, based on schumpeterian premises, considers that in the history of advanced economies technical changes are determined by a 'technological paradigm', imposing coherent clusters of innovations in products and processes.

A change of technical paradigm may occur during the depression phase of long economic waves, and nurtures the following phase of economic growth. Clusters of innovations and new industrial sectors are mainly generated by changes in the dominant source of energy: coal with the industrial revolution, electricity at the end of the 19th century, petroleum after the great depression, diversity of sources (the previous ones, plus nuclear, biological, kinetic) at the end of the 20th century.

An important branch of this growth theory, quite neglected today by economic analysis, is that technical changes (innovation clusters) destroy existing activities and give birth to new economic activities in a 'destruction and creation process'. Today what is termed 'new economy' basically refers to the only new sectors of human activities, on the ground they are the only sources of economic growth, which is far from being the case<sup>12</sup>. Endogenous growth theory relies on the same axiomatic and relates technical innovations with accumulation of knowledge and skills.

There is a lot of truth in those three streams of economic theory. However, they are far from being the whole story. They are used as the foundation of the claim that a paramount new source of economic growth is the quality of labour, as opposed to its quantity, which would have played a leading role in previous growth patterns. This statement aims at explaining an observed increased level of education in high performing economies and at justifying unemployment by an accelerated substitution of skilled labour for unskilled labour (a trend apprehended by average educational levels and by their uneven distribution between employed and unemployed people). This statement, when carefully examined<sup>13</sup>, appears as very superficial. In the past, quality of labour was as important as it is today. And today,

quantity of labour matters to the same extent as it has mattered before. Actually, the sources of labour productivity improvements are threefold. The first aspect is technical change, the second is the effect of the composition of the productive system, and the third one is the intensity of the delivery of labour power. Most of the time, economic analysis neglects this third aspect, although it is of paramount importance as a determinant of labour productivity.

## Skills, Technical Change and Labour Productivity

According to the neo-evolutionist economic analysis, there is a positive and necessary link between technical change, labour productivity and skills. Technical change cannot occur without changing and upgrading technical skills as a condition of productive innovations. Productive innovations are adopted by enterprises if and only if they enlarge markets (new products) and/or reduce productive costs (new equipment and new processes). Both types of innovation reduce labour costs through labour productivity increases. This is the dynamic process of capital for labour substitution (as opposed to the static process of neo-classical analysis). Therefore, innovations are assumed to be mainly labour saving, and to require upgrading skills, ex ante (for conceiving them) and/or ex post (for implementing them).

There is little doubt that a link exists between technical innovations and labour productivity, although far less automatic and necessary than generally stated. Nevertheless, there is no evidence at all of the existence of a link between technical changes and higher skills, at least for the bulk of the labour force. On the one hand, it is easy to establish that new machinery or new productive processes entail a change in the nature of technical skills. As skills are acquired through a learning by doing process, changes in equipment and productive methods require that workers

<sup>12</sup> If we follow the thesis of Wood and Lipietz of a trend towards a vertical division of labour between high skill-high wage countries and low skill-low wage countries, the former exports high-tech goods (mostly capital goods and services) to the latter, and the latter exports low-tech goods to the former (mostly consumer goods and raw material) (Lipietz 1985, Wood, 1992). Developed countries can adopt a specialisation in high growing sectors because their need for goods produced by low growing sectors are satisfied by other economies. Although broad analyses of that kind are always fragile, under such occurrence the so-called new economy would be mainly a rearrangement of international division of labour, taking opportunity of the apparition of new sectors. Through globalisation, that is through capital and commodities flows at a world level, dominant countries would be enabled to dump their 'old economy' elsewhere, and to only allocate their productive forces to the most productive sectors. Obviously, such a growth model cannot be universally followed.

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adapt their skills to their new technical environment. A worker on a mechanical lathe has to learn how to operate an automatic lathe. A clerk operating a typewriter has to learn how to operate a computer and do word processing. A worker manually monitoring (with eyes and ears) the thickness of the steelsheet on a rolling mill has to learn how to read a computerised screen doing the same operation. That those operators have higher skills after the change of technology than before cannot be logically determined. If the level of skills is evaluated by reference to the time it takes to learn, it is very probable that those new techniques require a shorter time of learning. If it is assessed through a differential of wages, it is probable that an initial gap in favour of new skills will be bridged shortly. Our assumption, which will be clarified and verified in the section The Autonomy of Education Hypothesis below, is that in common language, which often influences scientific concepts, skills are said to be higher when they entail a longer length of studies, whatever the length of on-the-job learning. Therefore, when enterprises replace on-the-job learning with external education, skills are regarded as higher.

Nevertheless, higher skills, assessed one way or the other, may be needed for conceiving the new machinery and for producing it, ranging from mechanical and electric engineers to computer assisted designers. Most of the time, new technology is bought from capital goods producers so that technical solutions are simple new arrangements of previous technical knowledge and experience. R&D expenses are dedicated to innovations of products more often than to innovations of processes. For example, this is the case of pharmaceutical firms and industry of software.

Reduction in production cost is sought by enlarging market shares rather than by transforming production processes. Upgraded technical skills – required to master new technologies in manufacturing and in sectors of services – actually affect a very small and slowly growing proportion of the labour force<sup>14</sup>. In France from 1982 to 1990, the number of intellectual professions and enterprise managers increased three times faster than the number of other wage earners (industrial workers and employees). This is an impressive figure, even though those professions only represent 18% of the active population in 1990. Their increase is due to a tertiarisation of the economy and to the birth of new businesses, and nothing indicates that this move positively influences labour productivity, as we will see later.

A provisional conclusion can be drawn at this stage. Changing techniques probably entail a process of obsolescence and regeneration of skills. However, until now, nothing allows us to assert that the new skills are higher than the old ones. During the Taylorist hegemony of techniques for instance, technical changes induced an overall deskilling trend for the majority of a better educated

population. Why would this change in a post Taylorist/Fordist era? This question will be addressed later. On the other hand, the question is whether workers with these new skills would be more productive than those with the older ones. It is commonly assumed that the answer is yes. However, there is nothing to support such an assumption. On the contrary, labour productivity growth curves, in Europe and in USA, have been lower after 1990 than during the rapid and stable growth of the three decades after WWII (IRES 1999). The productivity of new skills cannot be isolated from global phenomena. That is why the question whether new skills enhance labour productivity or not is by itself an inanity.

## Economic Restructuring and Effects of Composition

A quite well known source of productivity is the effect of the composition of the productive system. The principle is mathematical: if more labour is allocated to higher productive sectors, the average labour productivity grows statistically. This has been an explanation of an autonomous trend of global productivity augmentation, given by Denison in his attempt to explain the ‘residual factor of economic growth’. When, in the long term, new sectors develop, there is a need for more of the workforce in those sectors and, most of the time, a need for transferring it from other sectors. Overall labour productivity tends to increase or decrease if labour productivity is respectively higher or lower in new sectors than in old ones. The appearance of new productive sectors is related to a relative shift of global demand from the old sectors to the new ones, entailing a move of sectoral productivities in the same direction (see footnote 12 above). As wages at a national level do not differentiate much, thanks to income regulation, old sectors receive less returns than do new ones.

Meanwhile workers are reluctant to move from a sector to another for a lot of sound reasons. At the beginning of a process of global economic restructuring, let us say in the seventies in most industrialised countries, workers could resist the mobility needed to reallocate their labour power from declining to growing industries. Employers from old sectors had to regain their power to fire the labour force meanwhile employers of new sectors had to attract their workforce by paying it more than the social norm. Labour flexibility was supposed to help in re-establishing a market-like reallocation process. It actually brought about rising inequalities of incomes, between old and new sectors and

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<sup>13</sup> This close examination will be carried out in the section Education as an Autonomous Trend below.

<sup>14</sup> Even Robert Reich admits that ‘symbolic manipulators’ is a limited proportion of the workforce. US labour statistics suggest that they may be as low as 7% (Keep and Mayew 1999).



# IMMOBILE WORKERS, SKILLS & PRODUCTIVITY

between old professions and new ones. As productivity determines the 'employment content of demand' (that is the inverse of the average productivity of labour), old sectors have to engage in massive lay offs to restore their performance.

Meanwhile a higher productivity in new sectors prevent them from hiring the newly unemployed. That is exactly what has happened in almost every European country from 1970 to 1990. Redundancies, and investment in countries where demand was increasing rapidly, have been a solution to a declining rate of profit in the old sectors. Forced mobility of workers, from one sector to another, from activity to unemployment, from inactivity and back, had to be allowed in order for the labour force to be reallocated according to sectoral needs. This has been a major reason why labour flexibility has been promoted in Europe (Boyer 1987).

In France, the welfare state tried to keep implementing a full employment policy by pouring money into old sectors (textile, steel), by strongly regulating redundancies, by obliging employers to find jobs for their fired employees, by authorising anticipated retirements and by funding training intended to help the move of unemployed into new jobs. This policy took the form of 'social plans', in reality redundancy programmes<sup>15</sup>. Maintaining a full employment policy in such circumstances cost the public budget a huge amount of money. Such a policy was partly abandoned because of its poor results, its inflationary effects, and under growing political pressure of the middle classes who bore the greater burden of increased taxes, and under strong pressures of employers' associations. Full employment policy was abandoned in 1983 and a 'wage moderation policy' was enforced from then onwards (IRES 1999; Husson 2001).

In theory, the uneven development of industries, the restructuring of enterprises (subcontracting, outsourcing, concentration and networking) and technical changes (computerised processes) would entail a vigorous movement of labour reallocation. Yet, scrutiny of the sources of annual recruitment in enterprises from 1973 to 1993 in the whole economy shows a paradoxical evolution, where reality contradicts expected trends. The absolute number of new entries in employment declined from 3981 thousand in 1973 to 2970 thousand in 1993.

Compared to the total active population, new entries represented 17% in 1974 and 14% in 1990. The creation of new jobs fell, while unemployment rose. Thus, direct moves from a job to another, in proportion to total new entries, declined from over 55% in 1973, to about 46% in 1988, down to 42% in 1993. Thus, contrary to what would be expected, direct workforce reallocation between industries has decelerated during those twenty years. Mobility inside big enterprises could be an explanation. It is not taken into account in those figures, although it has probably been a major component of workforce reallocation.

Actually, the reallocation process is more indirect. It encompasses a stage of unemployment or inactivity. During the same period, the unemployment rate rose from 3% in 1974 to 10.7 % in 1985 and 9.3% in 1990 (it rose again to 12.3% in 1996). Thus, unemployment as a source for new entries steadily increased. It represented 4 % of total new entries in 1973, 25% in 1988, and 25% in 1993. It compensated more than the decline of direct moves between jobs and from inactivity to employment altogether<sup>16</sup>.

So, what has dramatically changed is not actually the overall mobility of workers, but on the contrary a transformation of the workforce reallocation process. It is a transformation from a relatively smooth process, where moves from job to job were dominant, into a violent one where moves from job to job pass through unemployment and inactivity. During the years of stable growth, the reallocation process, although more rapid, was nurtured mainly by changing jobs, exiting inactivity and the schooling system.

Today, it is mainly nurtured by unemployment and involves deep enterprise restructuring, massive redundancies, and endless closures and openings of businesses (Lagarde et alii 1993; Krifa 1996). Reallocation turned out to be a two stage process, instead of a single stage one: firstly dumping labour into unemployment and inactivity bins, and secondly sorting out who would then get the jobs. This process, of course, brought about damage to individuals and social suffering, and put pressure on governments to tackle these social problems.

The forced mobility of the workforce somehow dismantled internal labour markets, as has been observed (Piore et Sabel 1989). Consequently, on-the-job skilling declined in magnitude. In France for the 1973-1993 period, half of the moves from one job to another took place in the same range of skills. Actually, obsolescence of skills affected the other half of the workforce, who had to change their skills. Reduced internal labour markets and the needs for new skills would have appealed to educational and training institutions, who sought to bridge the gap. Over the same

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<sup>15</sup> In France, it is a legal obligation for employers to establish, make public and negotiate a 'social plan'. When an enterprise adopts a social plan, it aims at reducing its workforce. A social plan stipulates the measures taken by the employer to reemploy redundant employees on other sites of the same enterprise or on neighbour enterprises, to organise training programmes, and to call for early retirement. The rest, thrown into the unemployment folder, is called 'dry lay off', that is the number of persons sacked without alternative to unemployment or inactivity. Between 1975 and 1983, a social plan had to be approved by the government before its implementation. Today, the only obligation for the employer is to inform trade unions and the public administration of its content.

<sup>16</sup> Figures for this period verify the theory of a positive relation between the unemployment rate and inactivity. Moves from inactivity to employment declined from 16% to 11% of total entries in the working population from 1973 to 1993. These data on new entries on the labour market are presented in the table at the end of this paper.

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period, the contribution of the educational system to new entries into the labour force declined from 14% to 10% while the contribution of apprenticeship and other training institutions rose from 2% to 4%. This was probably the result of the strategy of businesses, which have been encouraged by unemployment to externalise the training of their workforce and to rely more on external labour markets. It is dubious that the overall outcome of those changes boosted labour productivity.

### Prescribed and Real Work

Our stance here is that, in the work process, labour productivity depends more on the hierarchical efficiency and less on technology that is generally stated, because of the gap between prescribed work and real work. Let us examine here this crucial question.

For a given activity, the improvement in labour productivity depends not only on improvements in technology and the social division of labour, but it also depends on the delivery of labour power, in volume and in quality, for a given technology. No technical change can yield better productivity if workers can oppose, one way or another, the expected delivery of their labour power. For instance, it is common knowledge that if the maintenance of sophisticated equipment is not carried out properly and on time, the yields for one year can be lost. This stems from the technical division of labour between conception and execution, and between managers and workers. How it works, and what its related outcomes are have been extensively documented by ergonomists from the 'Centre national des arts et métiers' (Blassel et alii 1976; Danielou et alii 1983) and by labour economists (Troussier 1981).

In Taylorist-Fordist labour organisations, ergonomists argue, there is a wide gap between prescribed and real work. When the work organisation departments and research and development departments of an enterprise conceive a working process<sup>17</sup>, they make use of the theoretical parameters of operations of machines, and of the theoretical parameters of chemical and physical processes. They also establish standards of working time by operation, and of movement and behaviour of average workers. In practice, workers adjust the theoretically engineered working process to real conditions so that it can operate properly. They do it as a result of their experience and their accumulated knowledge of how things work in practice. Even in automatic production lines, they intervene to avoid breakdowns before they occur, or control processes independently of the control screen through which they are supposed to monitor them. That is why formal learning cannot achieve the same result as on-the-job training does. Formal education, even

vocational, cannot teach the recipe for working efficiently in the real and day to day circumstances of work. Work prescribed by technological designs and imposed through the hierarchical command cannot take into account the conditions of production on the shop floor (humidity and temperature for instance), or every worker's peculiarities (size, weight, concentration, resistance, etc.). Prescribed work cannot correspond for technical reasons to real work, which is effectively delivered in the working process.

Prescribed and real work cannot coincide for subjective reasons either. In a Fordist assembly line, machines are conceived in such a way that they can incorporate a norm of work intensity (through the speed of a conveyor for instance). However, the real intensity of work remains quite different. A multitude of devices – from slow gestures, frequent breaks, to absenteeism, are used by workers to lower the intensity of their work. They also conceal their over-capacity, when they can work faster than required by the machine, as the frequent practice of replacement of workers on the assembly line for short rest periods clearly shows.

Workers are not passive and are rather ingenious at resisting intensification. This is even more so in processes where there is no other form of monitoring the intensity of work but paper regulations and personal control (by a foreman, a head of department, etc.). The gap between prescribed work and real work tells us more about the efficiency of management in mobilising the labour power of workers than it does about the efficiency of technology. In fact, workers' motivation to perform their job efficiently is the first and most important ingredient of the delivery of labour, that is of labour productivity<sup>18</sup>.

This remark led to rich sociological and anthropological analytical developments of the relation between society as a whole and the workplace, in the footsteps left by the Chicago school of industrial relations. Workers' motivation in the workplace is largely influenced by social values attached to work in the entire society (Althabe et Sélim 1998). As documented above, during the Fordist period, job security was largely directed at making a wage earner position more attractive than self employment and at keeping workers once hired. Job security was achieved through full

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<sup>17</sup> The services of work organisation or of research and development being internal, or purchased from consulting companies or equipment providers.

<sup>18</sup> In theory it is possible to distinguish between labour productivity and labour intensity, at least in the dynamic sense. Changes in the output labour ratio are changes in labour productivity if they occur while labour intensity is kept constant. In practice this distinction cannot be made. In fact, the distinction is conventional, for the border between intensity and productivity depends on the unit of time chosen to measure productivity. It matters for employees because intensity determines a great deal of their working conditions. On the other hand, the distinction has no meaning for employers. For them, what matters is the evolution of the overall output/labour ratio, whatever its source.



# IMMOBILE WORKERS, SKILLS & PRODUCTIVITY

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employment public policies and employers' strategies directed to full employment and its consequences in terms of regular monetary incomes and of social benefits. Wage labour became synonymous with labour and social integration, because most of benefits of social security were attached to wage labour, and less importantly because it equated individual identity with professional identity (Dubar 1992). For these reasons, wage labour was highly valued in social terms. In the same way, social promotion could be achieved in the working process itself thanks to large internal labour markets.

In such a context, workers' stability has had positive consequences. It allowed a vigorous learning-by-doing process, which in turn fed productivity gains that were then redistributed through collective bargaining institutions. Better wages and working conditions enhanced further stability, motivation and productivity improvements in a

wage efficiency like process. The result of this virtuous circle was a strictly parallel increase in real wages and labour productivity<sup>19</sup>. This situation created a real mystique of work. In the work process, what was called in French 'conscience professionnelle' (professional consciousness), meaning a real dedication to a well done job, spilled out across the workplace. Even trade unions encouraged this spirit on grounds that a good worker could be better defended than a bad one in industrial disputes. The gap between prescribed work and real work was at a minimum. The remaining gap was mainly due to technical incongruity, that is to objective reasons linked to Taylorist-Fordist technologies, rather than to workers' behaviour and subjective reasons. Indeed, the national mood with regard to work and society changed during the sixties until the turmoil of May 1968. Subsequent to that, social changes entailed dramatic changes in the social definition of skills.

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<sup>19</sup> From the 50's until the beginning of the 80's, sensitivity of wages to labour productivity was equal to 1 (Mounier 2001).

# MOBILISING LABOUR POWER THROUGH MOBILITY OF WORKERS: The Role of Behavioural Skills or Competency

At the turn of the seventies, a strong paradox emerged, that of attempting to restore motivation of workers by proposing their mobility. This proposition, called labour flexibility (Boyer 1987), was quite a strange event in a historical perspective<sup>20</sup>. The reallocation of labour is not needed to a greater extent than before, and this gives rise to the question: why is labour flexibility needed if not for labour reallocation purposes?

The point here is to explain why labour productivity began to decrease and labour costs to increase at the end of the 60s<sup>21</sup>. It is argued that, in immobilising the workforce so efficiently, welfare provisions and internal labour markets created niches where labour power could escape and hide. To challenge this 'adverse' result of social progress, businesses' strategies and neo-liberal policies engineered ways of mobilising labour power by the mean of workers' mobility. As stressed above, the long history of dependent labour has precisely shown that both movements at the same time were quite incompatible: instability of the workforce cannot but provoke instability of labour power. Exploring the current changes of the social definition of skills, which shifted from a technical viewpoint towards a behavioural one, we can show that defining skills as 'competencies' is the path taken by employers and governments in their endeavour to resolve this apparent contradiction.

## The Social Critic of Taylorist Technology and Fordist Society

As mentioned earlier, the national mood regarding work drastically changed during the sixties up to the turmoil of May 1968. Basic material needs, hardly satisfied at the end of WWII, faded away thanks to rapid economic growth and increasing living standards. In 1968, social movements denounced, in the streets and through a general strike, the stupefying effect of mass consumption, and the alienating effect of dependent work. Every manifestation of power, from the political arena down to the workplace and even within the household, was criticised as hindering individual freedom, initiative and responsibility, and as preventing the disappearance of sex, race and social discrimination. New generations of graduates from higher education could not accept less educated leaders. Because they could observe a gap between prescribed and real work, workers begun rejecting the authority of managers and hierarchies on the grounds that they were less competent than the workers themselves. Dictatorship by their superiors was experienced by workers in factories and offices as heavy handed, and individual achievement was more highly valued outside than inside the workplace. A general de-legitimisation of

hierarchy, largely based on consideration of competency and merit, nurtured more disputes in factories and offices, demotivated workers, and led to strategies for avoiding the norms of labour intensity<sup>22</sup>. Labour productivity improvements were hampered, mainly because workers could hide their labour power and avoid its delivery through well tuned strategies backed by internal labour markets, welfare benefits and the stability of full employment. In the meantime, institutional dispositions (indexed minimum wage, the classification of occupations, collective bargaining, the social wage, etc.), full employment and unionised unrest kept real wages on an upward trend.

Squeezed rates of profit at the turn of the seventies unfolded in economic depression, de-industrialisation and unemployment. Reactions to this very new situation, after three decades of rapid and stable growth, have been numerous and diverse. In France from 1983 onwards, leftist and rightist governments have both implemented a soft social democratic version of neo-liberal policies, on the ground that high and rigid wages were responsible for economic slow down, double digit inflation and unemployment. This has dominated most analyses until quite recently.

<sup>20</sup> Flexibility is mainly about restoring a profit-focused economy at the expense of a labour-focused one. This restoration is threefold. One is to shift the mechanism of adjustment from profit to labour incomes. In theory, the variation of employment is positively linked to variation of demand and negatively to the variation of productivity. In fact, employment and demand are, in the equation, independent variables, while productivity is a dependent one. Because of full employment policies, of social protection delivered by welfare states, and of evenly balanced industrial relations, workers became immobile up to the point where employment could no longer be used as an adjustment to fluctuations of demand. Labour became a fixed, or quasi-fixed factor. In the Fordist era, labour productivity had to play the role of a key means for adjustment. Therefore, labour productivity cycles arose from demand fluctuations; hence, given a stable trend in real wage, the share of profit in the value added had to fluctuate accordingly. The shift from a profit-driven adjustment to a labour-driven adjustment has allowed these demand fluctuations to be linked to labour, so that profit remains constant despite demand-driven economic cycles. This shift was achieved by 'reversing the way of thinking and of organising' the production, from a labour-based type towards a demand-based type (Coriat 1991). Flexibility of labour was the implied output of this new conception. The second purpose of flexibility was to change the distribution mechanism between profit and wages towards an increased share of profit in GDP. In Europe, an overall phenomenon of 'wage moderation', obtained by a stronger deceleration of wages than of labour productivity achieved this goal in the 90s. The third purpose of flexibility was to facilitate labour allocation to new economic sectors.

<sup>21</sup> This has been extensively documented, see (Mounier 2001).

<sup>22</sup> Increasing absenteeism, higher turnover rates, violent strikes of unskilled workers, a severe degradation of the quality of production (in some cases amounted to sabotage), and the needs for increased monitoring and supervision in the workplace destroyed the efficiency of the Taylorist labour organisation. (See also, Lorenzi et alii 1980).



# MOBILISING LABOUR POWER THROUGH MOBILITY OF WORKERS: The Role of Behavioural Skills or Competency

From the seventies onwards, this dramatic revolt against a mature labour culture, had impacted so much on French society (as elsewhere, showing that ideas migrate across national borders easier than everything else), that it has nurtured pessimism about whether work could still be the cement of socialisation. For some authors, an on-going shift from a blue to a white collar labour force has brought interpersonal relationships to the fore. The chronicle of the 'death' of work or waged labour was foretold by commentators as Gorz (Gorz 1988). For others, transformations of social values meant that labour retreated from its blessed position back to its cursed origin (Forrester 1996). The 'end of work' is viewed not so much as the ultimate stage of labour saving technologies – as in Rifkin's cybernetic sort of stance – but rather as the disappearance of a keystone of national solidarity and socialisation, resulting in social inequalities, disaffiliation and social exclusion (Rosanvallon 1992; Roustang et alii 1993; Castel 1995; Méda 1995; Rosanvallon 1995).

## Labour Management Methods: Integrating the Social Critic

In a recent major book, more akin to our concern here, Bolstanski and Chiapello (Bolstanski and Chiapello 1999) reject the theses of the end of work, and state that the Western culture of labour has not disappeared but has changed under the pressure of social critics. The latter have focused on Taylorist-Fordist technical organisation of labour and its influence on social life. Bolstanski and Chiapello stress that in capitalist labour relationships workers' motivation in delivering their labour power is never definitive. Through the ongoing contesting of Taylorist labour organisation, the gap between prescribed work and real work has steadily increased. In order to stop this damaging trend, and to restore economic performance of the work process, employers have been urged to conceive new labour management methods dedicated at motivating workers to deliver their labour power on time in required forms and locations.

The starting point for Bolstanski and Chiapello is the observation of an unexplained paradox of the last two decades. During this period, the social critic remained still and mute, or more accurately, disappeared from the public scene in the aftermath of its buoyant expression during the sixties and seventies. And yet one should have expected that deterioration of labour conditions and incomes should have led to renewed indignation and protest by social critic. Bolstanski and Chiapello's main thesis is that the social critic has been gagged by its integration into labour management reforms and that these reforms cannot be understood except in this way.

New labour management methods, made popular by management gurus, have extensively fought against an escaping labour power, both inside and outside the workplace, by the use of provisions and devices designed to fix the labour power and not the workforce. By integrating the social critic, their aim was to give workers a new motivation in delivering their labour power, so that higher standards of labour intensity could be restored. The integration of social critic into labour management methods occurred through a process of trial and error. A first set of responses to workers' previous claims was to 'enrich' jobs, and to set up quality circles, monetary bonuses and other devices. These attempts have seen workers given more autonomy, initiative and responsibility, as well as new training opportunities.

A new culture of 'projects' has emerged, where small autonomous working teams have been allowed to choose their own objectives and the way to achieving them, to fix their working rhythms and times, and to be accountable for their results. In the view of Bolstanski and Chiapello, the flexibility of work begun as a demand of workers for control over their working conditions, their working time arrangements, and even their wages. The development of part time jobs, dominant among active women, has occurred more as the result of women wanting to limit their working time than the result of employers' preferences. Similarly, some casual work has come from the choice to be free to choose one's own employer. A great proportion of quasi-waged independent jobs has been due to the employees' desire to flee from the subordination of the wage earner relationships (see above). Subsequently, those new forms of work had become a device for employers to achieve labour intensification.

Both authors also interpret in this way the evolution of classification of occupations. The trend pushed by employers is to substitute 'competency-based' classifying criteria for 'qualification-based' classifying criteria. A great number of French labour studies have examined the meaning of this evolution. Some of them supported it (Cannac 1985. Donnadieu and Denimal 1993) and others opposed it (Paradeise 1987). Some of them relied on the analysis of industrial practices. They received a boost from a famous collective agreement, CAP 2000 – which was the first real implementation of this competency-based classification of occupation in France (Hunout 1992; Feutrie and Verdier 1993; Stroobants 1993; Tangy and Rope 1994; Morin 1996.). The agreement was signed in 1990 in the large French Steel company, Usinor-Sacilor, between the management and trade unions. Its purpose was to reconsider the 'professional trajectory' of its employees, in the context of a reduced internal labour market, in the aftermath of deep restructuring and massive redundancies. The problem to be solved was to

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keep the moral high of the remaining troops and to motivate them, while promotion along a reduced hierarchy of positions could only offer limited career prospects. A radical change was required. The solution was inspired by labour management gurus: the workers should be qualified rather than the jobs. The gurus also recommended a move from a concept of technical skills towards a concept of behavioural skills. They suggested that three key principles should underpin the definition of the new concept of skills: autonomy, initiative and responsibility.

We will analyse in more detail below what those three principles mean and imply. Labour management experts also emphasised that, in order to get workers to agree on the new definition of skills, human resources departments should promote the view that they were adopting an employee driven definition of skills, not an employer driven one. This is exactly what trade unions have been demanding (see above). A new ladder of positions and wages arising from this new definition was therefore better legitimised, than had been the case with the late Taylorist hierarchy. In the bargaining process of the definition of skills, trade unions had apparently won.

Boltansky and Chiapello conclude in a less optimistic way than most analyses. They agree that workers highly valued their personal capacity on skills, and their autonomy and responsibility, as well as remuneration based on individual merits and efforts. However, Boltansky and Chiapello claim, this workers' standpoint has been used by new human resource management departments to restore and extend the motivation of workers and to increase the intensity and duration of work. Competency criteria, they claim, aimed at exhausting the potential labour power of workers, which is 24 hours a day and 365 days a year. These criteria require a commitment to work that encroaches on the entire life of the worker, and an abandonment of rules and practices of confining of their labour power to the workplace and to working time<sup>23</sup>. They set harsh rules of conduct and behaviour dedicated to intensifying labour power delivery.

Competency criteria, the authors claim, require from wage earners not only a remittance of their labour power, but a complete dedication of their entire person, – even their emotions, ethic, and trust. In the authors' view, a further 'commodification' of workers is taking place, by making use of both their labour power and their person. In this new context, workers are more conscious of their inherent instability and feel a new dependency and alienation. This in turn may produce a new social critic, where the security and stability of workers would equate with their empowerment. In the near future, such a social critic would nurture new and intense social struggles and unrest.

In our view, there is more at stake in the new definition of skills proposed by employers. It is not just a question of restoring social conditions of labour exploitation, as Boltansky and Chiapello have stressed but, more importantly, it is a question of remodelling the entire wage earner model. The recent presentation by the French national employers' association, the MEDEF, of its 'managerial revolution' (MEDEF 1998), provides an insight in the place and role of the new definition of skills in reshaping the wage earner model. From this comprehensive presentation of new labour management principles, we can infer that the core of the managerial revolution, in defining skills as competencies, aims to transform labour relationships in two ways. One consists of abandoning the Taylorist form of subordination in favour of a more subtle form underpinned by psychological foundations. The other seeks to monitor the workforce mobility in order to achieve an immobility of its labour power.

## Competency as a New Method of Subordination

In the Taylorist/Fordist labour organisation, subordination of workers has been obtained through military organisational principles, as Foucault suggested. The chain of command reflects the hierarchy of ranks, articulating jobs in a top down decision-making process, and allowing conception to prevail over execution. At the bottom, the required qualities of employees are to obey and to follow instructions. The only responsibility of those in the lower jobs is to avoid initiative, which might contradict those in higher jobs, and to accept disciplinary rules and procedures.

At the top, managers have to take initiatives and fix objectives congruent with the objectives of the enterprise, and to give orders along the chain of command. The counterpart of this freedom is the requirement to be accountable for the results of their decision, for the

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<sup>23</sup> Boltansky and Chiapello do not tackle, nevertheless, the current implementation of a new legal framework for the reduction of working time to a thirty five hour week. Encroachment of working time on daily life concerns not only its length, but also its uneven distribution across a day, a week or even a year. As the implementation of the law currently shows, a reduced total working time has been negotiated by employers against its regularity through time. For workers, this is a plague for organising non working time. For employers it is a way of adjusting the availability of the paid workforce to the exact level of the enterprise activity: no more periods with underemployed employees, and easier access to casual workers during 'overheated' activity. We could say that a just-in-time method has been applied to labour. There is no longer a need for overstaffing. The specific labour productivity cycle of the enterprise is eliminated and the average labour productivity is increased. With the monthly wage rate constant (which is a provision of the law of the 35 hour week), labour costs can now be dramatically reduced.



# MOBILISING LABOUR POWER THROUGH MOBILITY OF WORKERS: The Role of Behavioural Skills or Competency

correctness of their conception and for their order being carried out. The obligation they have is an obligation of results. Their rank in the hierarchy (hence in the classification of occupations) is determined by the level of responsibility they have. The responsibility related to a particular job is measured by three parameters: the number of workers to command, the size of the budget to manage, and the strategic importance of this particular job for the company due to its effects on corporate results.

Employers have been obliged to abandon the Taylorist labour organisation under the pressure of adverse economic effects of the social critics, and have sought other methods of subordination more akin with workers' expectations. Defining skills as competencies seems to be the ultimate stroke of inspiration that meets this objective. As Reynaud puts it, 'when entrepreneurs could not transform workers into genuine machines<sup>24</sup>, they tried to associate them', that is to transform them into sub-entrepreneurs (Reynaud 2001). Although Reynaud does not elaborate further, his observation throws a bright light of what competencies are made from and what they aim at.

In defining skills as competencies, and competencies as personal attributes of autonomy, initiative and responsibility, employers want to barter more autonomy (which is not the same as independence) and initiative, both sought by workers, against more responsibility. More responsibility means that employees, whatever their rank in the hierarchy bear liability for the results. Unlike before, they do not have an obligation of means but, rather, an obligation for results. In other words, wage earners have not only the duty to deliver their labour power as expected, but also have to accept a part of the risk of the profit-making operations.

The competencies approach, in fact, proposes to apply to every worker those criteria of classification which were formerly applied to the higher ranks of the enterprise, among them the managers. By this method, elements of homogeneity of the workforce are introduced so that the hierarchy can be felt to be non-existent or at least less oppressive. A common destiny of the workforce and of the enterprise can be proclaimed, as autonomy, initiative and responsibility are shared by all, and as wages, – now operating as incomes related to corporate results – borrow some of the distinctive features of dividends (bonus, stock options, etc.). Each worker can feel part of both conception and execution of work, such that the gap between prescribed work and effective work can be definitively bridged. Costly and inefficient hierarchy can be reduced and labour relationships pacified.

This new conception of skills aims at changing the way hierarchy operates in the production process, at blurring the borders between conception and execution, and at masking

the subordination dimension, or at least the feeling of it, in the labour contract. For motivating workers, employers have launched a comprehensive psychological campaign, in which all psychological means are deployed: interest and curiosity, self achievement and self esteem, prescription of ethical values, competition between masters and pupils, fear of individual assessment, fear of instability, taste for power and greed for money, etc<sup>25</sup>. Coercion of workers to deliver their labour power remains the objective, but the means have changed throughout the history of unfree and free labour: from political provisions in the pre-Taylorist forms of labour, towards economic devices and military organisation in the Taylorist/Fordist forms, and towards democratic forms and psychological attachment to the enterprise objectives in the post Fordist era. The nature of the wage earner relationship may remain the same, but its historical form is drastically and rapidly changing.

Numerous current analyses do not understand that, in introducing personal and behavioural criteria in the definition of skills, the competency approach only deals with the personal dimension of the labour contract. Reforming relationships of subordination requires new interpersonal relationships, and therefore new behavioural and personal qualities. An analysis of the criteria of recruitment in the private sector clearly reveals this evolution (Dubernet 1995; Dubernet 1998). On the basis of a comprehensive field survey of recruitment practices of human resources departments, the author shows that the previous experiences, moral qualities, and personal character of applicants are more important than their level of education and specific training. This confirms what has been already stated above.

However, a closer scrutiny of the survey findings shows other interesting findings: previous working experiences and the diploma are considered by employers not so much as an indicator of the technical skills of candidates, but as an indicator of personal qualities, of normal behaviour and of capabilities for socialisation. Working experience and diploma operate as devices of discrimination between those who have the aptitudes to autonomy, initiative and responsibility, and those who have not. Thus, these criteria can be used by employers as a proxy for assessing the competencies of applicants. In fact, concludes the author, criteria of recruitment have overwhelmingly turned into an assessment of the personality of candidates.

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<sup>24</sup> What Reynaud does not say is that this transformation can be understood both as making workers servants of machinery, and as the result of substitution of machinery for workers.

<sup>25</sup> It is interesting to notice that each time workers have not delivered their labour power properly, these same devices have been used by employers. It has been the case in France at the beginning of the 19th century, as extensively illustrated by historical analyses. Among them Castel, Foucault, quoted above and also Charlot and Figeat (Charlot and Figeat 1985).

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When employers define 'new skills' as competencies, they present this novelty as the integration of the workers' definition of skills from a personal perspective. However, in trade unions' stance, personal technical skills do not refer to behavioural attributes. Actually, employers seek to remove technical skills from negotiations on classification, precisely because they are skills upon which employees' bargaining power rests. Currently, workers' resistance is based on their refusal of competency criteria in recruitment and classification. Workers claim, on the contrary, a better recognition for personal technical skills. The old debate and bargaining process on skills seems to move from the opposition between 'the job perspective and the person of the worker perspective' towards an opposition between 'the behavioural perspective and the technical perspective'. When employers succeed in imposing their skills definition, they provoke reactions by workers trying to escape from a wage earner position. It has been observed that high skilled workers tend to escape by turning towards self-employment or creating new businesses.

Such reactions have also been observed in countries where the wage earner model applies to a small proportion of the labour force and is considered by most wage earners as a short transitional period in their professional trajectories (Mounier 1995). Technical skills are becoming the line of defence for workers. Social confrontations around the new duality behaviour/technical perspectives lead to new compromises in the social definition of skills. In contemporary societies skills are defined midway between these two heterogeneous components.

Eventually, competencies have a precise meaning related to the transformation of the labour contract: they allowed employers to reorganise the subordination side of the labour relationship, to reduce the scope and tasks of the hierarchy in the work process, and finally, to downsize their internal labour market. Another side of the competency approach can thus be revealed: that of monitoring the mobility of the workforce.

## Employability and Mobility: the Skills/Employment Trade-off

We stated above that in the Taylorist organisation of labour, defining technical skills from the job perspective aimed at fixing workers in the net of internal labour markets. We would like here to establish that defining skills as competencies aims, on the contrary, at organising the mobility of workers. Skills are now defined in such a way that they constitute an additional disciplinary device to that of the threat or reality unemployment. Therefore, it appears that employers seek to overcome the contradiction between

their needs for an immobile labour power and a mobile workforce in proposing to employees a kind of trade off between skills and employment.

*MEDEF's managerial revolution stresses the importance of a new social dialogue triggered by the competency concept: "Introducing the competency approach in human resources management helps create a new field of social dialogue beneficial to both the enterprise which will be able to improve its competitiveness, and to the wage earner, who will develop his/her employability, and will have the means of a better professional career. The term 'employability' is defined further in the MEDEF proposition:*

*'A competency can only be acknowledged when it is put into practice. As the needs of the enterprise change, new skills have to be mobilised and others have to be discarded. The wage earner has a personal responsibility in developing his/her own competencies. He/she must be able to manage his/her portfolio of competencies, to add to it by committing him/herself in acquiring new competencies and in being involved in training. The enterprise will monitor this involvement in order to facilitate this responsibility and to provide the means for developing the portfolio of competencies (MEDEF 1998)<sup>26</sup>.*

The MEDEF vision, ideologically motivated, is rational and understandable, because it expresses its own interest. It relies, however, upon 'scientific' grounds which are nonsensical and short-sighted. This body of analyses draws on three basic premises, infinitely repeated in business, political and academic circles.

The first one is that contemporary societies have changed to such a point that changes of all kinds have become permanent and created an uncertain and risky environment. Globalisation has made economic competition sharper and has obliged enterprises to adapt constantly. Thus, contemporary conditions of employment and contemporary evolution of skills have constantly changed and will continue to change. Long term history shows that periods of economic and social instability cyclically follow and precede periods of stability. Long wave theory and neo-evolutionism theory of technological paradigms explain such long term cycles.

During the phase of economic depression, changes of all kinds take place. Technological and organisational innovations, institutional transformations, productive restructuring and labour moves gain momentum. During the phases of depression at the end of the 19th century, and during the great depression of the thirties, similar changes took place giving rise to a similar social feeling of a fast and endless change. On the contrary, during the following phase

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<sup>26</sup> On the concept of employability, see also (Gazier 1990; ILO 1998).

# MOBILISING LABOUR POWER THROUGH MOBILITY OF WORKERS: The Role of Behavioural Skills or Competency

of growth the new productive, technological and institutional framework becomes more stable and the feeling of uncertainty fades away.

The second premise is the disappearance of stable jobs. This may be the case during the phase of depression, when reallocation of the workforce is vigorous. Then, employees should expect to change jobs more often, as employers desire a more mobile and flexible workforce. In the following phase of growth, jobs could be much more stable and even a flexible workforce could begin to exert adverse effects on enterprises' performances.

The third premise is a consequence of the second one and states that skills will permanently change and will require more education and training to be acquired than before. It is worth stressing that in that respect the concept of employability is crucial. In the MEDEF's stance, employability is the ability to seize each opportunity of being hired in the labour market. This ability encompasses the range (portfolio) of skills that a specific worker can acquire. It is an asset that the worker can develop by investing his/her savings and time in. It is an asset that will increase the value of his/her labour power in the labour market. And it is the best guarantee of keeping a job in the same enterprise, or alternatively finding a new job quickly.

A large range of skills (rather than generic skills) is an insurance against unemployment, and a tool to cope with a 'necessary' job-to-job mobility. In other words, a diversified and up to date portfolio of competencies is what make them portable<sup>27</sup>. On the contrary, a worker who does not pay sufficient attention to his education and training may not keep up with this unstoppable evolution of skills. Therefore, if a worker is equipped with obsolete skills, he/she can expect the inevitable sanction, that is to get fired and to stay unemployed. He/she will be the only one responsible for being fired, for losing status and income when moving from job to job, or for remaining unemployed for a long time. In such a context where labour mobility is both a fact and a historical necessity, well endowed workers can face the harsh reality without fear and resistance.

Moving from job to job becomes not so dramatic an event. Moreover, it might even be beneficial to workers and meet their desire for social promotion, provided they are consistent in their studies and training. Only bad management of a skills portfolio would be punished and would bring hardship. MEDEF's conception of skills, here competencies, is clearly a trade off between unemployment and skills. In the past, unemployment was a device to get cheap labour; today, unemployment has become a device to get new competencies. In fact, as shown in the preceding section, unemployment has become a device to get normalised, conformist, motivated and committed workers in the workplace.

Thus, the question arises as to why the concept of employability has been forged and is having so glorious a destiny. We have underlined that the mobility of labour has been a way of weakening the power of the labour force in the work process so that labour productivity cycles could be controlled and even eliminated. In contemporary social transformations, flexibility of labour has mainly been designed in order to cushion productivity cycle, even more than to improve labour productivity<sup>28</sup>. The problem has been to make acceptable and legitimate the freedom of employers to hire and fire workers according to demand fluctuations. For this purpose social tensions have to be avoided, as do the social drama attached to lay-offs.

Achieving a painless labour mobility could be attained through traditional socio-psychological devices, consisting of scapegoating for what is occurring and at the same time opening an eschatology of hope. The myth of a historical or natural necessity is one of them: labour mobility is now presented as a necessity, to which there is no other alternative but resignation. The other target for responsibility is the worker him(her)self, given that his/her own destiny is in his/her own hands through his/her own investment in education and training. The eschatology of hope is that the benefits of economic growth can be shared on an equitable and fair basis provided professional careers and rewards are proportional to individual endeavour in education and training. Of course, those devices may not be enough to construct and impose social beliefs, which are contradictory to individual and social experiences. They may not be enough to convince workers that labour mobility could be costless and more rewarding for them.

Here we suggest that the notions of competencies and of employability have been a refurbished vocabulary to give back power to employers. Alain Supiot, in a recent brilliant contribution (Supiot 1999), suggested another interpretation. If, he argues, current transformations of work are only understood as a situation in which capital has regained strength against labour, then a move backwards to where labour was stable and protected would be the right thing to do. If, on the other hand, transformations of work mean that labour relationships and the rules of labour organisation and co-ordination have changed with the nature of work, then

<sup>27</sup> In United Kingdom, the British National Vocational Qualifications has been developed since the early nineties as a system of certification of skills. Certification allows workers' personal skills to be recognised by the community of employers. It does not create new skills or competencies. It has been designed in order to convince workers that mobility would be easier and not disadvantageous to them. In France, there is no such system. (Heidemann 2000).

<sup>28</sup> For a preliminary analysis of the effect of reducing the amplitude of the labour productivity cycle on overall performance of enterprises, see above footnotes 20 and 23.

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the wage earner model has changed, perhaps becoming a minority situation.

Employees are no longer employed for an indeterminate time by a single employer, and no longer can they benefit from stable conditions. Hence, the wage earner model has to be abandoned, and a more comprehensive notion of work and of its protection has to be adopted. New labour relationships have to be 'reinstitutionalised', meaning that new rules have to be enacted, new arenas of negotiating rules have to be found, and collective actors must be urged to act within those rules. Labour mobility has to be accepted, and labour law has to adapt its overall framework to this new labour relationships. Labour law should protect not only those who cannot work and standard wage earners as in the past, but more comprehensively, all forms of work, dependant or independent, paid or free, flexible or otherwise<sup>29</sup>. The law should protect all forms of work, which should now be defined as a social obligation (of production, childcare, training or hospitality) to act in the public or domestic spheres, and this should entail new legal consequences. A new set of obligations and legal provisions would define a 'professional state'. Supiot concludes that:

*'This professional state of persons must incorporate the need for the liberty of work, understood as a practical freedom, and must facilitate the move from one labour form to another. This is indispensable in order to avoid*

*becoming stuck within a given labour situation. Giving space to individual liberty in defining social rights implies the break up of the prevalent conception of such rights, which have been defined as the counterpart of particular risks and subjection. That conception is bound to a passive picture of the employee, who suffers both the risks of existence and the weight of subordination.*

We can accept Supiot's suggestion if social forces are strong enough to have inscribed in the law such a statute capable of instituting new social norms and such an ideal.

Nevertheless, before the advent of such a bright future, the cost of labour mobility will continue to be paid by individual workers, through educational investment, insecurity, periods of unemployment or inactivity, and even social exclusion. A principle of reality must prevail. While the transformation of the nature of work has been triggered by the transformations of work processes, by restructuring labour organisation, by downsizing internal labour markets and by deregulating welfare systems, the mutual obligation of employers and employees ends in the duty of employees to monitor their portfolio of skills and to invest their dire means in it. The trade-off between skills and work security has been made, probably at the expense of employees. The same idea of promoting a trade off between the security of existence, ensured by welfare systems, and education has invaded public policy.

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<sup>29</sup> Some years before Supiot's report was written for the European commission, another report was commissioned by the French planning agency (Commissariat Général au Plan 1995). This report, known as the Boissonnat's, suggested the substitution of a contract of activity for the wage labour contract, in order to fuel moves from job to job, to acknowledge education as work and to reduce risks linked to unemployment or inactivity.



# EDUCATION AS AN AUTONOMOUS TREND

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Most analyses have believed that observed correlation between increasing education expenditures and GDP growth rates have provided the ultimate evidence that endogenous growth and human capital theories were relevant. The problem with correlation is that it does not establish a direction of causality. As a matter of fact, such premises cannot justify the notion that education has been increasingly autonomous from economic trends. Indeed, we argue that in modern European societies, education has become largely independent from economic determinations. Education can yield positive economic effects, but it is not mainly conceived nor designed for such a purpose. By the same token, education, either general or vocational, may exert positive effects on the content and the level of skills, as we have already suggested, but it forges skills rather than is forged by them. Let us explore the hypothesis of the autonomy of education and the interpretation of educational policies it implies.

## The Autonomy of Education Hypothesis

A first set of arguments of a practical kind asserts that, contrary to most analyses, links between skills and education are not a two way but a one way road. A second set of arguments introduces a very useful historical perspective. It states that education has been, at least since the great depression, an activity on its own right, independent from economic activities.

Skills are generally measured by the level of education (see ILO 1998). Length of studies, expenditures on education, or enrolment rates are used to express the level of education. This measure implicitly postulates that education is so tightly linked to skills that it can be used for a proxy of skills. Therefore, an improvement of the level of education (either general or vocational) of a population is interpreted as an improvement in skills. If it is assumed, on the contrary, that skills are not acquired at schools – but on the job – then the length of working experience should be used as a proxy instead. Thus, the level of skills would appear independent from the level of education. Why then use educational levels as a measure of skills? The rationale relies upon a body of evidences that is briefly examined below.

It is commonly conceived that general and theoretical knowledge of the kind transmitted by formal education is combined with practical experience in the formation of skills. If a component of skills is education, then its development might increase the level of skills. That education can be a substitute for skills acquired on the job is not considered, and that is exactly what occurs when education becomes more autonomous vis a vis the productive system. It is therefore possible that a higher level of education may

correspond to a similar or even lower level of skills. In the same vein, beyond transmitting an existing knowledge, education teaches how to learn. It is sensible then to assume that education allows one to learn faster on the job, but it is not the case that learning faster on the job leads to higher skills. Depending on working conditions, it may only mean that the overall time to acquire a required level of skills is shortened. Thus, a substitutive phenomenon may take place, for example, when employers prefer to save on the job training times and costs by virtue of an easier access to a better educated workforce.

Classification of occupations have certainly exerted a major influence in the formulation of the hypothesis concerning the education-skills relationships. The ladder of positions in the classification corresponds to a scale of wages, themselves regarded as a function of skills. In reality, wages define levels of skills, and not the other way around, as generally stated. Analysing the first national classification of occupations after WWII, Naville advanced this idea (Naville 1956). Charlot and Figeat elaborated it further, in their history of French vocational education and training (Charlot et Figeat 1985). They showed that vocational education at higher and secondary levels has produced managers, engineers and foremen – that is the hierarchy in the working process – and not the bulk of skilled workers. Charlot and Figeat confirmed Naville's observation that positions in the hierarchy differed widely from a would-be hierarchy based on diplomas (as a measure of levels of education). This is easy to explain.

The ideology of the self-made man, rewards for dedication to work, and a widespread feeling of contempt for inexperienced graduates, have been applied to legitimise the expansion of internal labour markets. The distribution of positions in the classification was largely independent from educational attributes. Instead, they were the result of the value ascribed to work experience in the criteria of recruitment, the degree of on-the-job training, and the use of seniority for the promotion to higher levels. In France, if the managers' positions in businesses' hierarchies were mainly occupied by a highly educated elite, this was because education has been a social means for reproducing a national elite among a small circle of privileged families, more than for productive considerations (Bourdieu et Passeron 1970; Bourdieu 1989). The same occurred with regard to professionals, for whom diplomas were, and still are, a fee and a filter to enter a closed shop social status, rather than a proof of required vocational abilities<sup>30</sup>.

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<sup>30</sup> It is notorious in France that, until recent times, the children of professionals took up the same profession as their parents, whether they had diplomas or not. Today, the regulation of professions has made succession more difficult and more reliant on diplomas; however, a tight filiation remains between the professions of parents and children (Bourdieu et Passeron 1964; Godard 1992).

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Historically, an autonomous educational system progressively has emerged from the initiatives of social actors. First, the state played the leading role, as we will show below. Then came families' strategies towards education (Mounier 2000). The widespread desire by families and individuals to enter the elite or professional ranks has exerted a very powerful spur for individuals and families to invest in education. Moreover today, even poor families compete between themselves in the educational arena, precisely because education is a powerful factor of social discrimination along generations (Godard 1992; Zanten and Robert 2000). Such behaviour has contributed to the growth of education at a pace and to a level which is not directly linked to economic needs and has led to a buoyant inflation of credentials (Godard 1992; Collins 1979). Education tends to be autonomous and imposes its logic on other spheres of social activity. Historical arguments strengthen this autonomy hypothesis.

French economists of the 'School of Regulation' have carried out a comprehensive investigation on the links between education and economic growth in France, Germany and United Kingdom (Fontvieille 1990a; Fontvieille 1990b; Diebolt 1997; Carpentier 1999; Michel 1999). In those three countries, they found that until the great depression, education expenses played a counter-cyclical role: they developed more rapidly than GDP in depressive phases of Kondratief cycles, and less rapidly in phases of expansion. Since the great depression onwards, education has progressively moved to a pro-cyclical role, as educational expenses have begun to follow the same patterns as GDP. Thus, Regulationists adopt the same stance as endogenous economic growth theories and human capital theories: education has become an, or even the, engine of economic growth.

Nonetheless, they do not follow these theories all the way. For them, relationships between education and growth are not a-historical relationships. They have changed through time, and the autonomy of education is a quite recent phenomenon. Moreover, long waves and educational trends are country-specific. Subsequently, education may not be currently an engine of growth in some countries around the world, as claimed by most international organisations. To be a factor of economic growth, education must be independent from it. Education needs to have a logic of expansion of its own, rather than being totally bound into capital accumulation and material production.

Michel (Michel 1999) proposes an explanation of the increasing autonomy of education<sup>31</sup>. She describes this process as an evolution along three stages.

Stage 1: education is driven by the economic system. It corresponds to its counter-cyclical role. In practice, the time

and place of training are not separated from the time and place of work. Both overlap (as illustrated in pre-modern corporations' apprenticeship schemes). Formal educational institutions and enrolments are limited to a small fringe of the population. New investments in research and training only occur in the depressive phase of economic cycles and thereby boost economic recovery.

Stage 2: education, as a manifestation of the progress of general knowledge, forges its own logic of expansion, independently from the economic system. Its disconnection from production begins after the great depression. Enrolments in schooling institutions steadily increase. Education encroaches on working times along life cycles. Research activities begin to be organised on a permanent basis. An increasing and steady share of GDP is dedicated to the expenses of education. Exchanges within the sphere of education expand; educational activities for producing teachers and researchers develop; education spreads among inactive people; the accumulation of knowledge, as witnessed by the 'informational revolution', takes place independently from the productive sphere.

Stage 3: education tends to subordinate the logic of the economic system to its own logic. This is a current tendency but still in limbo. The educational sphere draws increasing resources from the productive sphere and diverts them from productive uses. On the one hand, science expands along its own logic (all that can be discovered will be discovered). On the other hand, science shapes productive innovations (all that is discovered will be applied to human activities)<sup>32</sup>.

Eventually, the autonomy assumption means that education and science have a life of their own and expand according to their own logic. Their impact on production and economic growth therefore depends not so much on their content and dynamic, but on how and to what extent the productive system makes use of what they potentially bring to it. Let us say that an expanding education system opens up a larger field of opportunities for the productive system. It does so on the basis of its self-development. When the MEDEF says that employers acknowledge as skills only the technical and behavioural abilities of workers, which are effectively put into practice in the working process (see above), they precisely express this relation between education and skills.

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<sup>31</sup> In the author's definitions, the term 'formation' is preferred to that of education. For her, it includes formal education at school (thus, education, whether general or vocational or both, is reserved to only designate this aspect), research as a way of enlarging general knowledge and training either on-the-job or in specific institutions. Here, we use the term of education with the same broad meaning as 'formation' chosen by S. Michel.

<sup>32</sup> Sandrine Michel does not elaborate this analysis, and does not quote authors that stress that science, technology and education are already independent from productive purposes and impose their logic on production and labour. See for instance two loud voices in that respect, that of Ellul and that of Latouche (Ellul 1981; Latouche 1997).



# EDUCATION AS AN AUTONOMOUS TREND

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When workers and their organisations complain that the full scope of personal skills are not used nor paid, they point out that workers' knowledge and experience differs from what enterprises actually utilise. They also suggest the same relation between education and skills. If the Finegold and Soskice thesis of a 'low skills/low quality equilibrium' has any meaning, it may be not so much because the English VET system failed to equip businesses with adequate skills as generally stated (Keep and Mayhew 1999); it may rather suggest that businesses failed to adapt their technology, organisation and practice to what education and training offered. The theory of the mismatch between skills supply and demand, that is the coexistence of both excess and scarcity, can be understood within the education autonomy assumption hypothesis. The same could be said for science and research<sup>33</sup>.

Autonomy of education can be read also in educational policies. These have been conceived on other considerations than boosting economic growth. When educational policies introduced this concern for economic growth, closer links between education and production have to be stimulated through public intervention, and this occurs precisely because this relationship is not spontaneous.

## General and Vocational Education Policy

In France, the wide gap between work and education seems to result from a time lag between their separate development. Indeed the national educational system was well constituted before French industrialisation accelerated at the end of the 19th century, which was quite late in comparison with England or even Germany. Entrepreneurs at first did not feel the need to be involved in education, and, when they did, they found a strong educational system, relatively closed on itself, largely influenced by republican and socialist ideas, enthusiastic to defend public interests, and therefore reluctant to serve vested private interests (Barral 1968, Prost 1968). From the government point of view, the production of skills for private purposes has not been so much a public policy matter as a matter for enterprises to train their own workforce, according to their needs.

Public education has had, since the 19th century, a genuine objective, that of developing a national identity, and of forging the nation state. In this way, education has helped to erase marked regional differentiation and histories and replace them by uniform cultural references. Compulsory and free public schooling of each citizen according to age is evidence of this prominent role of education (Prost 1981). At the time, compulsory and free schools, despite the political rhetoric, were not shaped to tackle social inequality. Rather, education was dedicated to building a national spirit and

defending the nation against foreign greed. It did not target social change. Rather it taught that social classes and the prevalent social order were rooted in a natural state of society. Moreover, education has played, and still plays, a role as a factor of social segmentation and discrimination (Bourdieu et Passeron 1970). Building a new social republican order has required the formation of a new ruling elite, sharing the Republic's values and armed to serve the public interest embodied in state institutions. Les 'Grandes Ecoles', more than any other higher education provider, have filled the high ranks of public administration, polity and business (Bourdieu 1989). Compulsory school for the people was not meant to challenge privileges of that kind. As for welfare policies, education has mainly been considered as one of the crucial instruments of the building of the nation state<sup>34</sup>.

Only recently in the national educational policy, has economic logic tried to overcome political principles, and tended to encroach on social and political institutions and values. For Charlot and Figeat (Charlot et Figeat 1985), the first governmental comprehensive policy towards vocational education was initiated at the beginning of the great depression, when the liberal state ended. From then on, vocational education policies were promoted each time that education and production had diverged too much. In reality, the state has always considered its involvement in vocational education as secondary, and as a consequence of the negligence of businesses, rather than as its normal vocation. As Charlot and Figeat put it, educational public policies have aimed at keeping the working class within the

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<sup>33</sup> It is not our purpose here to discuss the argument of French Regulationists that an autonomous trend of educational expansion implies that education has become the engine of economic growth. They emphasise that autonomy is a condition of such an evolution. It certainly is a necessary condition, but we wonder if it is a sufficient condition. In fact, if social resources allocated to education (and more generally to the development of human qualities) increase beyond positive effects on labour productivity, then the sufficient condition is not fulfilled. As education tends to affect the whole population, a simple trend of increasing dependency rates – that is, an increase of the inactive population/active population ratio – reduces the positive effects of education on economic growth. Also, as we stressed above, positive effects of education highly depend on businesses' behaviour regarding technology, organisation and skills. A slowdown of labour productivity in most European countries in the last two decades, compared with educational expenses, suggests that education has entered the zone of decreasing returns, precisely because its own expansion does not rely on economic returns. Economic forms and norms of co-ordination do not circumscribe regulation of education.

<sup>34</sup> The brilliant work of Castel argues that French welfare system from its very beginning has aimed at the construction of a modern nation state (Castel 1995). In French culture, working is a citizen's obligation. Participating in production is an individual duty, as it is the duty of the community, represented by the state, to aid those who cannot work because of age or handicaps. Giddens supports the same thesis when he states that the welfare state has essentially the same meaning as the nation state, and for that reason has been the result of a continuous endeavour of rightist as well as leftist governments (Giddens 1994). We can state exactly the same for educational systems, which Green also showed (Green 1990).

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borders of its social condition. Their main concern was not providing industry with adequate skills, except for short periods of time (the popular front in 1935 or the reconstruction of the national economy after WWII, and from 1985 onwards). They observe that in France, vocational education has provided industries with engineers and foreman rather than with skilled workers for the shop floor. Comparing French and German educational systems in the sixties and seventies, renowned sociologists from the LEST (Laboratoire d'économie et de sociologie du travail), drew the same conclusions (Maurice et alii 1982). From the sixties onwards, each reform and revival of the vocational branch of education claimed that promoting vocational education was widening this branch of study for students who would not or could not, because of their individual tastes or social origins, follow the general branches.

Vocational education was part of a real endeavour to equalise social opportunities of life for students. It always contained the idea that it could partly solve the problem of 'school failure'. This word refers to numerous early school leavers, who exit without diploma, and it expresses a feeling of a national scandal, because the education system has contravened the rationale that every citizen should have equal opportunity in life, or at least in education. In that respect, vocational education policies have always been part of an undertaking to mend the political flaws of the educational system.

From 1985 onwards, the government has given a high priority to education and undertaken a comprehensive policy of improvement. Its declared objectives were to enhance democracy and economic development at the same time. A first objective was to allow 80% of each generation to get the diploma of secondary education (the 'baccalauréat' which opens the gate to university). A second one was to upgrade universities in quality, facilities and staff (Plan Université 2000) in order to prepare them for the large expected flow of new entrants and to enhance the quality of teaching and research. A third objective was, as a complement to continuing education, to develop the vocational branch of education, traditionally neglected in the French system.

The government has only partially achieved this third objective, but it has succeeded rather well in the other two. The general branch of education expanded quite rapidly and universities dramatically increased in scope and quality. In vocational and general education, taken altogether, enrolments in upper secondary schools increased since 1985 onwards, on a rate of more than 7% a year. The proportion of each generation accessing the last year of upper secondary (the last year preparing for the baccalauréat) jumped from 37% in 1985 to almost 55% in 1990 (Prost 1997). The overall result of this policy has been a sharp

increase in the average level of education, although not enough to match the performances of Germany, United Kingdom or Sweden. In 1996, 30% of the population had primary education, about 50% had secondary education and 20% had tertiary education (about 8% from Grandes Ecoles and equivalent and about 12% from universities). An equivalent public endeavour has been devoted to continuing education and training.

### Continuing Education and Training Policy

Continuing education has been an enduring claim by trade unions, which have established a range of organisations to deliver educational services to workers. They welcomed an important law on continuing education, which was enacted in 1971. Continuing education was first designed with the same philosophy as that for vocational education. The main reasons invoked by the government was to provide a second chance to those who had started working where they were young, just after compulsory school, and have not been able to pursue longer studies. Continuing education was also conceived in such a way as to allow workers to rest from the adverse effects of the labour contract. This philosophy governed the implementation of continuing education provisions until 1983, when the preoccupation of producing skills was introduced.

In the 1971 law, two important provisions have been enacted and are still enforced. One is leave for training (without pay), which actually recognises the right to suspend, for training purposes, the application of the labour contract, without breaching it. The other one is that employers have a legal obligation to set aside a portion of their wage bill in order to finance continuing education for adults. However, they have no obligation to organise it by themselves or to train their own employees. This has given rise to a very complicated system in which a great variety of vocational and training educational institutions, both private and public, sell their services to employees and employers (Join-Lambert et alii 1994, Vernières 1993).

Since 1980, every government, whatever their political colour, has had a much greater concern than just checking the labour contract or providing businesses with needed skills. This concern was to curb a steadily rising unemployment rate, which increased from 3% in 1970, to 6.5% in 1980, 9.3% in 1990, and up to about 12% from 1995 onwards. Unemployment appears as a major national political failure, so much so because full employment was socially valued as a right of citizenship. A strong feeling that unemployment could be a threat to national cohesion paved the way to interminable policies.



# EDUCATION AS AN AUTONOMOUS TREND

One has been to maintain the minimum purchasing power of the long term unemployed, mainly young people who never worked before seeking a job, and those unemployed after the exhaustion of their rights to compensation. With a strong motive of social justice, the law created in 1988 the 'RMI' (revenue minimum d'insertion), a universal minimum income for inactive people without personal income and without access to welfare benefits<sup>35</sup>.

Another policy was aiming at full employment through educational measures. A conviction of the 'modernisers'<sup>36</sup> was to solve the unemployment problem by giving to the unemployed, or to those in a precarious position, a key which would open the gateway to stable and fair jobs. This policy arises from the observation that unemployment mainly affects unskilled and poorly educated people (Vernières 1993)<sup>37</sup>. Hence, offering them the opportunity to acquire better education and skills was seen as the best solution to unemployment, while training unskilled employed workers has been conceived as a way of defending them from becoming the victims of endless redundancies<sup>38</sup>. For that purpose successive governments could use the existing law of continuing education, designed some years before in a context of full employment, as a device to dam the growing wave of unemployment. They also intended to cushion the relocation of employed workers from declining to growing industries.

In order to comply with these objectives, the government has had to bend and adapt this legal framework. Two successive revisions of the 1971 law (in 1984 and 1992) made two small steps in that direction. A first step was to change workers' training rights into training obligations, a step partly enforced by provisions of social plans<sup>39</sup>. Another step was to increase the employers' compulsory contribution to training (currently 1.5% of the wage bill for businesses with 10 employees and more, 0.15% for the others). As a result, the overall budget dedicated to continuing education and training dramatically increased and gave birth to a complicated but comprehensive set of training institutions, both public and private. This has allowed Vernières to state that VET has won its autonomy from enterprises (Vernières 1993). An overall assessment of the impact of these provisions is positive. Almost 33% of the employed population have benefited from the provision of the law. However, a closer look shows that training sessions have been, and still are, very short (rarely exceeding a week) and that employees of large companies and with higher skills have benefited more than low skilled workers and the unemployed (Join-Lambert et alii 1994).

As shown by the uneven distribution of beneficiaries, this comprehensive policy of vocational education and training was nevertheless unable to reverse the trend of unemployment. This obvious flaw put into question its explicit basic assumption that the cause of unemployment and social exclusion was an uneven distribution of skills among the

active population. As Tanguy put it, referring to periodic VET policy assessments, there is no evidence that VET could, and can, help reduce unemployment and improve the employment situation (Tanguy 1986). Despite this uneven outcome, however, the initial spirit of the law – that of allowing workers to rest from the effect of the labour contract, and that of a more comprehensive educational system independent from economic needs – still remains.

Indeed, the labour reallocation process has made skills obsolete and increased the needs to build new ones, particularly those required by new technologies. At the same time, systems of on-the-job training and promotion seniority, which have been hampered by the dismantling of internal labour markets, could not match this increasing demand for new skills. Public education had to carry the baton for business. A new contraction of enterprise involvement in on-the-job training has occurred in the last two decades and have fed the acceleration of the educational system towards more autonomy.

## The Education-Welfare Trade-off

We have already suggested in preceding pages that the trade off between skills and employment could reflect a more comprehensive trade off between education and the welfare system. Few analysts explicitly mention this trade off. However, a German economist, Heidemann, (Heidemann 2000) does when he closely examines the European white papers dealing with education and learning (EU commission 1994; EU commission 1995). These papers emphasise that lifelong learning must be developed for meeting employability

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<sup>35</sup> Propositions for setting a 'contract of activity' made by the Boissonat report, or a 'professional status' made by the Supiot report – to which we referred above in section 13- were influenced by the RMI policy. Enacting the RMI provision has actually been a first step towards a complete disconnection between work and pay. The idea which these reports explored is that a comprehensive social safety net would be a basic income linked to citizenship, instead of an income formation depending on access to paid labour opportunities. As we have already stated, this would enhance labour mobility. To some extent, this idea resurrects and enlarges, with the opposite purpose, the Speenhamland system established in England in 1795.

<sup>36</sup> We borrow the term used in the United Kingdom context from Brown and Lauder (Brown and Lauder 1997)

<sup>37</sup> It is worthwhile pointing out that in the last two decades French labour sociology has enlarged its focus from work towards unemployed and inactive people and the movements between those situations. It has stressed this positive relation between the unskilled and the unemployed (Maruani et Reynaud 1993). Maruani and Reynaud argue that this evolution would justify changing the term 'labour sociology' into 'sociology of employment'.

<sup>38</sup> The stance of the MEDEF about employability, which we already presented in section 13, relies somehow on the same diagnosis as the government's.

<sup>39</sup> See above footnote 15.

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requirements. Heidmann describes such a proposal ‘as the change from participation in economic success via participation in social security to participation in knowledge and information:

- In the early days of the trade union movement – and right up at least until the Second World War – the main focus was achieving a just share of economic output.
- During the next phase – which began before the Second World War and lasted until recently – it was participation in the institutional benefits of social security which was the main focus.
- Now, as we move into an information-based society, participation in knowledge has to become a central element in trade union programmes and policy.’

Things and history are a little more complicated, but this is a clear formulation of our education-welfare trade off hypothesis. When welfare systems have not been directly dismantled, more pernicious means have been used to metamorphose a ‘welfare’ state into a ‘workfare’ state. Access to welfare provisions are more and more linked to individual endeavour to seek a job and to train for this purpose. Drastic measures in that direction have been taken in the United Kingdom by the Labour government. In France, the same occurred with the socialist government’s attempt to ‘activate passive expenses of social protection’ to yield better social and economic results. Here, welfare provisions are used to encourage employment. With the same meaning, MEDEF has recently proposed to subordinate unemployment compensation payments to efforts by the unemployed to seek jobs and to undertake training.

The Australian government found a nice formula for this new approach to welfare benefits: mutual obligation. Education is becoming a gateway to jobs, because employers tend to retreat from their training responsibilities in the work processes and to hand the baton to educational systems. As welfare measures become contingent on jobs, education becomes the gateway to welfare benefits and therefore the only pathway to a complete and mature citizenship. Education is an individual responsibility, but also a national duty of individuals. At the end of the day, education by itself has replaced all other provisions of social protection.

Across the whole range of social analyses, labour mobility is overwhelmingly seen as the new and normal situation of contemporary labour relationships. As education is the secret for getting portable and up-to-date skills, and thus jobs, it is now seen as the new way of coping with social risks. In a few more years, welfare measures, which set up hurdles to the required mobility of workers, would have disappeared<sup>40</sup>. Thus, education would come to play the leading role in protecting workers and non workers from social risks. This will happen

irrespective of the form of work or the stage of personal trajectories, so that education would become the only universal coverage of the risks of existence.

We strongly question this vision of an idyllic future based on education, and on an efficiency/equity argument. The efficiency argument, according to which education is the key engine of labour productivity, is highly questionable, as we have suggested<sup>41</sup>. It generally forgets that education spends social resources, and that no device ensures that spending would be offset by gains. The equity argument states that welfare measures may ease social inequalities, but most of the time not in a sustainable way. Welfare provisions are rather indicted for prompting laziness, diverting from work, and eventually hampering labour productivity improvement<sup>42</sup>.

The equity argument is dismissed for an efficiency reason!

As opposed to social security provisions, education would be a more equitable and fair system for distributing national wealth, because it would be a system of distribution in proportion to individual endeavour and merits. This standpoint ignores that education is a powerful means of social discrimination and inequality. It also neglects the fact that in the recent past welfare benefits have stimulated labour productivity in a wage efficiency-like mechanism. It is not here the place to elaborate these arguments, although they reveal that hopes placed in education, as a miraculous device to solve all kinds of social problems, are certainly too high and probably misplaced (Hasley et al ii 1997). Education will certainly not be able to co-ordinate micro-decisions in labour markets, nor have its expected effects on economic growth and income distribution. Instead we might witness more international competition between national educational systems. In that respect, the emphasis on international standards of education has already sharpened competition between nations in that field. International competition in education may feed more international competition in the world labour market, more brain-drain, and more frenzied flows of capital in search of an adequate labour force. Education has become a spur for the further downsizing of internal labour markets, and for the further decline of welfare provisions untied to jobs. Education is actually used to develop and legitimise competitive labour markets.

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<sup>40</sup> It is curious that the majority of the French literature we went through in this paper accepts the necessity of workers’ mobility as a characteristic of present labour relationships. We have shown that this is a very contingent situation that social interactions and struggles could reverse as well.

<sup>41</sup> See footnote 33 above.

<sup>42</sup> We cannot help mentioning here the famous ‘right to laziness’ claimed by a smart French observer of the working class at the end of the 19th century. Lafargue (Lafargue 1976) questioned in fact employers’ view that workers were inherently lazy. At that time, this argument aimed at intensifying labour for fuelling recovery from economic depression. It is interesting to notice that current critics of welfare use a very similar argument in pursuing the same objective.

# THE THREE LOGICS OF SKILLS

We now have to turn to the initial questions of this paper: to what extent does an analysis of labour relationships help in elaborating a concept of skills? What does this analysis actually bring to a definition of skills? To what extent can this definition be useful in addressing major current issues regarding skills and their formation?

## An Analytical Framework

A rough image being more useful than a long discourse, let us summarise here our principal findings in the following chart. See CHART: The three logics of skills (reported at the end of this paper).

The chart shows that skills have three major components:

- a first one is related to the exercise of labour power. It refers to technical skills, determined by equipment and productive methods. Its propensity to be socially incorporated into the definition of a particular skill is referred to as a technical logic, or logic T;
- a second one is related to the subordination aspect of wage earner relationships. It refers to behavioural skills, which reflect the personal qualities of the worker to deal with interpersonal relationships in dependent and subordinated labour. Its propensity to be socially incorporated into the definition of a particular skill is referred to as a behavioural logic or logic B;
- a third one is related to the level and kind of education and training. We define it as a cognitive skill, and its propensity to be socially incorporated into the definition of a particular skill is referred to as a cognitive logic, or logic C.

A 'logic' is a social force acting in a given direction. A social force is a result of interaction between social actors, institutions and social values and norms.

Whether at a macro, industry or enterprise levels then, a magic function of skill would be formulated along the lines of:

$$S = \tau T + \beta B + \gamma C$$

This magic function only indicates that in reality, a singular skill S is made up of three components, whose relative weights are respectively  $\tau T$ ,  $\beta B$  and  $\gamma C$ .

In searching for a homogeneous and substantive definition of skills, most attempts have only looked for one single logic, which has led them to neglect the social process of defining skills and to assume that skills could be compared through time and space. The formulation above suggests, on the contrary, that a particular skill is a heterogeneous quality of

labour, mainly composed of three dimensions. As those three dimensions are not independent – because in reality they interact amongst themselves and can be substitutes for one another – this equation cannot express a general upward or downward evolution of skills. It rather stresses that a given combination of the three logics in defining skills is time and space specific, because those logics are embedded in labour relationships and broader social structures.

Historically, in independent labour relationships, let us say in the case of a craftsman or a farmer, the subordination logic (logic B) has not been a part of the equation. We do not suggest that, in such labour relationships, the personal character of a craftsman, or a farmer, does not matter in the way a job is performed. We mean that it does not enter, or too little, as a 'logic' in the social process of defining their skills. In the same way, skills of independent professionals are exempted from behavioural features. However, the cognitive logic of their skills differ from that of craftsmen or farmers. The latter follow a 'workplace oriented' logic, in which logic C does not act. Meanwhile the former follows a 'school oriented' one, in which the logic C is prominent.

Consequently, logic B would certainly be a highly significant determinant of skills in wage earner labour relationships, as it is indeed. The contradiction between the need for subordination and the right to breach the labour contract has been largely resolved thanks to historical characteristics of the wage earner model (classification of occupations, welfare provisions). Skills, in reality, reflect responsibilities within the hierarchy of positions, as described by the classification of occupations.

Consequently, the logic B of skills is an important component of the wage earner model. According to time and space, its importance may change. This component of skills has been largely ignored by most analyses, which barely understand why it has become a key variable in the definition of skills brought about by the current transformations of the wage earner model (see section above).

The cognitive logic has its distant roots outside the realm of labour relationships. Its historical development has emerged from the concern with accumulating human experience, in order to accumulate the knowledge associated with it, and to transmit this knowledge to singular individuals, who would otherwise have no access to its scope. When educational systems, from schools to universities, undertook this accumulation and teaching in a systematic way, they created what we call here a cognitive logic. Historically, this logic was born with the first engineers in Europe about the turn of the 17th century, but it gained momentum more recently when it was explicitly designed to building the nation state. This historical path has given education its pattern of autonomous expansion. Current endeavours to subordinate education to

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economic needs demonstrate both that it is not its spontaneous tendency, and that most of the social actors want the cognitive logic to play the leading part in defining skills (see previous section).

In the preceding pages, we have pointed out that labour allocation, between jobs, sectors and locations – in other words the mobility of workers – is really what is at stake in the social definition of skills. Thus, whether labour mobility is assessed as a irreversible trend or a reversible one dramatically changes the way of addressing the question of skills.

## Addressing the Question of Skills

These basic analytical tools can be used to address the major current issues regarding skills.

For the 'French School of Regulation', the wage earner model has evolved with the economic growth regimes of Western countries, from the industrial revolution onwards. Competitive adjustments, through Walras-like mechanisms in a free market, prevailed until the end of the 19th century. It is generally referred to, in 'regulationist' terms, as the 'pre-Taylorist' period. Duopolist adjustments, in general with highly conflicting labour relationships, prevailed between the end of the 19th century and WWII.

Taylorist technology increased labour productivity but not wages, entailing an imbalance between global production and consumption and between labour demand and supply. The Fordist period, from 1945 to 1975 approximately, kept Taylorist technologies but increased direct and indirect wages so that they followed labour productivity gains. Parallel production and consumption growth could be reached, as well as full employment of the workforce. The wage earner model is the typical labour relationship of this period. In the post-Fordist period, from 1975 onwards, drastic transformations of the wage earner model arise from an abandonment of Taylorist techniques and labour organisation<sup>43</sup>.

In these four periods, skills have been differently defined according to social needs for labour mobility. That is why skills have been and still are a major tool of regulation of the labour market. They can be considered as an institution designed to monitor labour mobility and consequently labour allocation. A compromise, between employers, workers, governments about the degree of mobility of labour, is then translated into an agreed definition of skills. Labour intensity and productivity and income distribution between wages and profits ensue from this definition.

The question of skills, as referred to in the introduction of this paper, can now be formulated through more accurate

questions: how is a compromise on a definition of skills arrived at? Which opposite standpoints does this definition attempt to reconcile? What are its expected and real effects on labour mobility? And what are its productive and distributive outcomes?

Indeed, this new formulation of the question of skills discards from its previous formulation some issues as irrelevant and considers others as the only relevant ones.

Let us first very briefly examine those issues that are irrelevant, and therefore as such are not part of the question of skills. We refer particularly to those questions of whether there currently is a social need for higher or lower skills, and whether the effective skills mobilised in current jobs are downskilling or upskilling the workforce. As the social definition of skills changes through time, there are not objectified measures of such upward or downward trends. Through time and, at the same time, both discourses are heard according to the social actor who articulates it. For instance, trade unions and individuals currently claim that the personal skills of workers are increasing, and that employers are deskilling the workforce. The opposite is stated by employers. As we saw earlier, a greater mobility of the workforce and the growing autonomy of education both tend to sharpen this opposition.

Turning to the relevant issues, we must consider the dilemma of 'specific versus portable (generic or portfolio) skills'. This is a genuine issue, because it is crucial in determining the degree of mobility of the workforce, that is of labour allocation. This analysis must adopt a historical perspective in regard to each country specific situation. This dilemma can only be understood when related to four other dilemmas encountered earlier. Let us first recall them in a stylised manner:

**Question 1.** Are skills defined from the job (1a) or the worker (1b) perspective?

**Question 2.** Are skills technical (2a) or behavioural (2b)?

**Question 3.** Are skills acquired on the job (3a) or in education and training (3b)?

**Question 4.** Are skills improvements stimulated by welfare provisions (4a) or by education (4b)?

**Question 5.** Are skills better provided by public (5a) or private (5b) institutions? We did not tackle this last question in our analysis, but it is easy to relate it to the problem of the regulation of the educational system and of the labour market.

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<sup>43</sup>For a more detailed presentation of this analysis, see (Mounier 2001).

# THE THREE LOGICS OF SKILLS

Historically, answers given to those questions have been of the (a) or the (b) kind or both at the same time. The following chart summarises very broadly our findings.

Skills questions	Pre- Taylorist period	Taylorist-Fordist periods	Post-Fordist period
Question 1 Job perspective and/or personal persp.	1a + 1b	1a	1b
Question 2 technical skills and/or behavioural skills	2a + 2b	2a	2b
Question 3 acqu. on the job and/or acqu. at school	3a+3b	3a	3b
Question 4 welfare provis. and/or education	4b	4a	4b
Question 5 public and/or private	5b	5a	5b

Obviously this presentation simplifies the analysis made in previous sections. It overstates changes and understates continuities. It overlooks transitions between periods. However, this schematic presentation underlines that skills definition emerges as a device of regulation of the labour market<sup>44</sup>. Regulation is about the social control and management of labour mobility. Compared to the pre-Taylorist period, the Taylorist-Fordist period splits what was previously unified. In doing so, it appears that answers to the skills question choose the only branch (a) of each alternative, because these (a) branches acting together were able to fix the workforce in the working process, by making skills narrowly specific.

In the post-Fordist era, the other branch (b) of each alternative has been chosen, but in a conflicting bargaining process. Each choice is not yet perfectly clear cut. These choices acting together develop portable skills in order to facilitate labour allocation. The overall outcome is to increase workers' mobility. The different devices set to enhance workers' mobility aim at a compromise where the employers' standpoint can be legitimised in workers' eyes and minds, and even in public policy makers' views. This battle takes place on the ground and in social values and representations as well. What is really at stake in the current process of redefining skills is the creation of a new

mode of regulating labour markets, more akin with competitive market mechanisms.

New insights into the question of skills emerge from this analysis. The first one is that changing skills is not the consequence of a changing nature of work, but the other way around. Redefining skills is a necessary condition and a lever for transforming forms of employment and labour relationships, so that labour reallocation between industries, jobs, regions and even countries is fostered. The second one is that dilemmas (a) versus (b) still exist because the conflicting definition of skills is still in process, and will stop as soon as a social compromise on a new definition between the parties involved is reached.

A third new insight emerges regarding public choices and policies. VET policies, as well as general educational policies, must acknowledge that their real stake is not economic performance or income distribution as such, but labour mobility and labour allocation. If they want to intervene so that a certain definition of skills prevail, they have first to evaluate if labour mobility is still needed to enhance economic growth and social equity.

Let us very briefly elaborate this implication of our findings on VET policies.

## Some Lessons for VET Policy

It has been argued that contemporary societies tend to dump social problems onto schools. That is perfectly true, and also particularly applicable to VET and training policies. Public vocational education and training must certainly be given a high priority in promoting technical skills, because, as we have seen, it conciliates the interests of workers and entrepreneurs and certainly fuels economic growth and competitive advantage in world markets. However, those policies must not take as a standard the low denominator fixed by entrepreneurs, on the ground that education must meet the demand for labour in labour markets. The autonomy of education in general and VET in particular has to be acknowledged. It implies that governments must stand by their role of setting social norms and objectives, and not being instrumental in matching 'market needs'.

<sup>44</sup> We could introduce here the idea that the current 'commodification' of labour – that is treating the labour force as every other commodity and the labour market as a competitive market- has been followed by an active 'decommodification' in the Fordist period, through the introduction of elements of statute in the labour contract (see above), and a strong regulation of the labour market through internal labour markets and welfare provisions (see above). These terms are used by Gosta Esping-Andersen (Esping-Andersen 1999).

On the contrary, VET policies have to be considered as autonomous decisions, and their concern should be devoted to strengthening their role in regulating the labour market for economic and social purposes. As it stems from our conclusions, a coherent strategy, congruent with economic and social objectives, must be outlined. This strategy has first to answer a crucial question about whether mobility or immobility of workers has to be encouraged, so that economic growth and social equity objectives can be achieved.

From this answer can be derived the definition of skills which VET policy-makers should adopt in order to design their strategies and their implementation. A sensible choice in that respect would need some further research into the current trends of labour allocation and into an assessment of the balance of their positive and negative effects on economic and social variables. Throughout this paper, some directions for investigating these issues have been suggested. A well documented analysis would allow VET policy makers to choose one of the answers of the dual questions of skills, sketched in the chart above, as normative targets of a public policy related to skills. The distance between these norms and the 'spontaneous' result of interaction between social actors on labour mobility should also be measured in order to determine the scope and the duration of a VET policy.

The analysis of the current trade off between education and welfare has also made clear the fact that VET policies cannot alone regulate the mobility of the workforce, that is the regulation of labour transactions. They cannot be a substitute for full employment and income distribution policies. On the contrary, VET policies have to be part of comprehensive employment and labour policies aiming at regulating labour mobility according to political, rather than economic, criteria. VET advocates have to be convinced, in order to convince those in charge of employment and labour policies, that economic growth and social equity cannot be achieved through education alone. They have to stress that they can succeed in their endeavour, if and only if, VET policies are part of a political package properly addressing the issue of labour mobility.

Addressing this issue, they must consider the effects of labour mobility on economic growth and on the social risks which should be covered by social protection provisions. As Polanyi taught us, no dependent worker can survive without protection from his/her subordinated position and from the risks of existence. Labour allocation cannot discard the historical necessity of social protection. In that respect, skills alone cannot do the job.

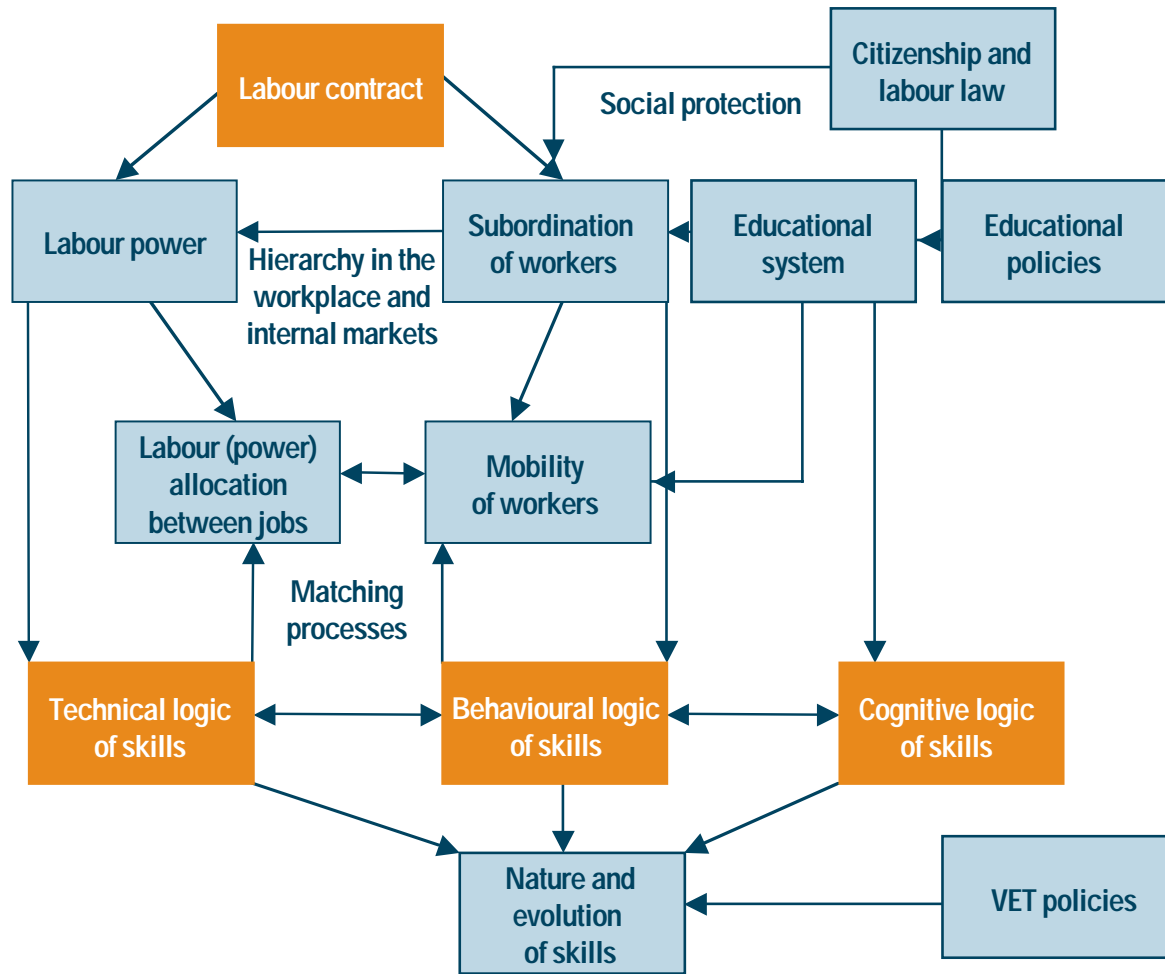
### NEW ENTRIES IN THE LABOUR FORCE FRANCE 1973-1993

Origin	1973 Entries (000)	1988 Entries (000)	1993 Entries (000)	1973%	1988%	1993%
Educational system	541	328	301,3	14%	11%	10%
Apprenticeship	72	49	32,4	2%	2%	1%
Post school training	-	118	103,3	0%	4%	3%
Army	232	157	130,6	6%	5%	4%
Unemployment	179	781	755,1	4%	25%	25%
Inactivity	619	384	338,8	16%	13%	11%
Foreign country	130	50	61,3	3%	2%	2%
Other enterprise	2208	1296	1 248	55%	42%	42%
<b>Total</b>	<b>3981</b>	<b>3067</b>	<b>2970,8</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>

Sources: *Enquêtes emploi INSEE. Bilans Formations- emploi CEREO.*

# THE THREE LOGICS OF SKILLS

## THE THREE LOGICS OF SKILLS: PRINCIPAL FINDINGS.



- Aglietta M. et Brender A. (1984). *Les Métamorphoses de la Société Salariale*. Calmann-Lévy, Paris.
- Althabe G. et Sélim M. (1998). *Démarches Ethnologiques au Présent*. L'Harmattan, Paris.
- Arendt H. (1998). *The Human Condition*. University of Chicago Press, Chicago and London (first published in 1958). (in French: *La Condition de l'Homme Moderne*. Calman-Levy, Paris, 1983).
- Aubin G. et Bouveresse J. (1995). *Introduction Historique au Droit du Travail*. PUF, Paris.
- Barral P. (1968). *Les Agrariens Français de Méline à Pisani*. Armand Colin, Paris.
- Bartlet A.C. et Ghoshal, S. (1991) *Le Management Sans Frontières*. Editions d'Organisation, Paris.
- Blassel H. Laville A. et Teiger, C. (1976). Conditions de Travail et Analyses Économiques. *Critique de l'Economie Politique*, 23, 11-33.
- Bolstansky L. et Chiapello E. (1999). *Le Nouvel Esprit du Capitalisme*. NRF, Gallimard, Paris.
- Boltansky L. et Thévenot L. (1987). *Les Économies de la Grandeur*. PUF, Paris.
- Bourdieu P. et Passeron J.C. (1964). *Les Héritiers*. Les Editions de Minuit, Paris.
- Bourdieu P. et Passeron J.C. (1970). *La Reproduction. Les Fonctions du Système d'Enseignement*. Editions de Minuit, Paris.
- Bourdieu P. (1989). *La Noblesse d'Etat. Grandes Écoles et Esprit de Corps*. Editions de Minuit, Paris.
- Boyer R. (ed). (1987). *La Flexibilité du Travail en Europe*. La Découverte, Paris.
- Boyer R. (1986). *La Théorie de la Régulation: Une Analyse Critique*. PUF, Paris.
- Brass T. (1999). *Towards a Comparative Political Economy of Unfree Labour*. Frank Publications.
- Brown Ph. and Lauder H. (1997). Education, Globalization and Economic Development in Hasley A.H. and alii 1997.
- Cannac Y. (1985). *La Bataille des Compétences*. Editions d'Organisation, Paris.
- Carpentier V. (1999). *Développement Éducatif et Performances Économiques au Royaume-Uni. 19<sup>ème</sup> et 20<sup>ème</sup> siècles*. Thèse de doctorat en Sciences Économiques. Université de Montpellier I.
- Castel R. (1995). *Les Métamorphoses de la Question Sociale*. Une Chronique du Saliariat. Fayard, Paris.
- Charlot B. et Figeat M. (1985) *Histoire de la Formation des Ouvriers, 1789-1984*. Minerve, Paris.
- Charlot B. (1995). *L'école en Mutation: Crise de l'école et Mutation Sociale*. Payot, Paris.
- Collins R. (1979). *The Credential Society*. Academic Press, New York.
- Commissariat Général au Plan. (1995). *Le Travail Dans Vingt Ans*. Odile Jacob, La Documentation Française, Paris.
- Coriat B. (1982). *L'Atelier et le Chronomètre*. Bourgois, Paris.
- Coriat B. (1989). *L'Atelier et le Robot*. Bourgois, Paris.
- Coriat B. (1991). 'Penser à l'envers'. *Travail et Organisation Dans l'Entreprise Japonaise*. Bourgois, Paris.
- Courpasson D. et Livian YF. (1991). Le Développement Récent de la Notion de Compétence: Glissement Sémantique ou Idéologique. *Revue de Gestion des Ressources Humaines*, n°1.
- Covers F. (1997). The Impact of Human Capital on Labour Productivity in Manufacturing Sectors of the European Union. *Applied Economics* (UK), 29, August 1997, 975-987.
- D'Iribarne A. (1989). *La Compétitivité. Défi Social, Enjeu Éducatif*. Presses du CNRS, Paris.
- Danielou F. Laville A. Teiger C. (1983). Fiction et Réalité du Travail. In *Le Travail Ouvrier. Cahiers Français*, janvier-février, 39-45.
- De Besse M. (1996). Formation et Expérience de la Qualification à la Compétence ; Le Cas Français. In Lamotte B. et Abattu C. *Travail et Emploi: Vers de Nouvelles Régulations*. Rapport de recherche, IREPD, novembre, 1996, 105- 113
- De Coster M. et Pichaut F. (eds). (1994). *Traité de Sociologie du Travail*. De Boeck & Larcier, Bruxelles, (2<sup>e</sup> édition).
- Deyo F. (1989). *Beneath the Miracle. Labour Subordination*. University of California Press, Berkeley.
- Diebolt C. (1997). L'évolution de Longue Période du Système Éducatif Allemand, 19<sup>ème</sup> et 20<sup>ème</sup> siècles. *Economies et Sociétés*, 31, 2-3, série AF/23, 1-370.
- Dockès P. et Rosier B. (1983). *Rythmes Économiques*. La Découverte, Paris.
- Dockès P. et Rosier B. (1988). *L'Histoire Ambiguë*. PUF, Paris.
- Donnadieu G. et Denimal P. (1993). *Classification-Qualification: de l'Évaluation des Emplois à la Gestion des Compétences*. Editions Liaisons, Paris.
- DTI. (1998). *Our Competitive Future: Building the Knowledge Driven Economy*. Cm 4176, Stationery Office, London.
- Dubar C. (1992). Formes Identitaires et Socialisation Professionnelle. *Revue Française de Sociologie*, vol XXXII, 505-529.



# REFERENCES

- Dubernet V.A-C (1998). Le Diplôme: un Mode d'Accès à l'Emploi? in Supiot 1998.
- Dubernet V.A-C. (1995). *L'Embauche, Approche Sociologique des Modes de Recrutement Dans le Secteur Privé*. Thèse de Doctorat en Sociologie, Nanterre.
- Ellul L. (1988). *Le Bluff Technologique*. Hachette, Paris.
- Esping-Andersen G. (1999). *Les Trois Monde de l'Etat-Providence*. PUF, Paris. (first English edition, 1990, *The Three Worlds of Welfare Capitalism*).
- EU Commission. (1994). *Growth, Competitivity and Employment*. White Paper, EU Commission, Luxembourg.
- EU Commission. (1995). *Teaching and Learning. Towards the Cognitive Society*. White Paper, EU commision, Luxembourg.
- Feutrie M. et Verdier E.(1993) Entreprises et Formations Qualifiantes. Une Construction Sociale Inachevée. *Sociologie du Travail*, n°4, 469-493.
- Finegold D. and Soskice D. (1988). The Failure of Training in Britain: Analysis and Prescription. *Oxford Review of Economoc Policy*, vol 4, n° 3, 21-53.
- Finkelkraut A. (1987). *La Défaite de la Pensée*. Gallimard, Paris.
- Fontvieille L. (1990a). La Croissance de la Dépense Publique d'Éducation en France (1815-1987). *Formation-Emploi* n°31, 61-71.
- Fontvieille L. (1990b) Education Growth and Long Cycles. The case of France in the 19<sup>th</sup> and 20<sup>th</sup> centuries. In Tortella G (ed). *Education and Economic Development Since the Industrial Revolution*. Generalitat Valenciana, Valencia, 317-335.
- Forrester V. (1996). *L'horreur Économique*. Fayard, Paris.
- Foucault M. (1975). *Surveiller et Punir*. Gallimard, Paris.
- Foucault M. (1961). *Histoire de la Folie à l'Âge Classique*. Plon, Paris.
- Freyssenet M. (1974). *Le Processus de Déqualification-Surqualification de la Force de Travail. Elements pour une Problématique des Rapports Sociaux*. Centre de Sociologie Urbaine, Paris.
- Friedman G. et Naville P. (eds Avec le Concours de Téantron, JR).(1962). *Traité de Sociologie du Travail*. 2 tomes, Paris.
- Gazier B. (1990). L'Employabilité: Brève Radiographie D'un Concept en Mutation. *Sociologie du Travail*, n°4.
- Géhin JP. et; Méhaut P.(1993) *Apprentissage ou Formation Continue? Stratégies Éducatives des Entreprises en Allemagne et en France*. L'Harmattan, Paris.
- Giddens A.(1994). *Beyond Left and Right. The Future of Radical Politics*. Polity Press, Cambridge, Oxford, UK.
- Godard F. (1992). *La Famille, Affaire de Génération*. Presses Universitaires de France, Paris.
- Gorz A. (1988). *Métamorphose du Travail, Quête de Sens: Critique de la Raison Économique*. Galilée, Paris.
- Green A. (1990). *Education and State Formation*. Macmillan, London.
- Hasley A.H. Lauder H. Brown Ph. Wells A.S. (1997). *Education. Culture, Economy, and Society*. Oxford University Press, Oxford, New York, 172-192.
- Heidemann W. (2000). *Lifelong Learning and Employability. Is the European Model of Vocational Training in Crisis?* Hans Böcker Stiftung, DGB, Düsseldorf.
- Hunout P. (1992). Les Méthodes d'Évaluation des Emplois: Du Classement des Emplois à la Mesure des Compétences. *Formation - Emploi*, n°39.
- Husson M. (2001). Le Modèle Européen des Années 90. In (Lamotte et Mounier 2001).
- ILO. (1998). *World Employment Report 1998-1999. Employability in the Global Economy. How Training Matters*. ILO, Geneva.
- IRES. (2000). *Les Marchés du Travail en Europe*. La Découverte, Paris.
- Join-Lambert M.T. Bolot-Gittler A. Daniel Ch. Lenoir D. Méda D.(1994). *Politiques Sociales*. Presses de la FNSP et Dalloz, Paris.
- Keep E. and Mayhew K.(1999). The Assessment: Knowledge, Skills and Competitiveness. *Oxford Review of Economic Policy*, vol 15, n° 1, 1-15.
- Krifa H. (sous la direction). (1996). *Globalisation des Entreprises et Création/Destruction d'Emplois: Étude Comparative France, Grande Bretagne, Italie*. Commissariat Général au Plan, IFRESI-CNRS, Lille.
- Lafargue P. (1976). *Eloge de la Paresse*. Maspéro, Paris. (First published in 1883).
- Lagarde S. Maurin E. Torelli C. (1993). Créations et suppressions d'Emploi en France, une Étude de la Période 1984 -1992. *Economie et Prévision*, n° 113 - 114, 67-88.
- Lamotte B. et Mounier A. (eds) (2001) *Transformations du Travail et Croissance Économique*. L'Harmattan, IRD, Paris. Sous presse.
- Lamotte B. (ed). (1998). *Les Régulations de l'Emploi. Les Stratégies des Acteurs*. L'Harmattan, Paris.
- Latouche S. (1997). *La Méga-machine*. La Découverte, Paris.
- Lipietz A. (1985). Mirages et Miracles, Problèmes de l'Industrialisation dans le Tiers Monde. La découverte, Paris.
- Lorenzi J.H. Pastre J. Toledano J. (1980). *La crise du XX<sup>e</sup> siècle*. Economica, Paris.

- Lyon-Caen V.G. (1992). *Les Libertés Publiques et l'Emploi*. La Documentation Française, Paris.
- Marchand O. et Thélot Cl. (1997). *Le Travail en France, 1800-2000*. Nathan, Essais et Recherche, Paris.
- Maruani M. et Reynaud E. (1993). *Sociologie de l'emploi*. La Découverte, Paris.
- Maurice M. Sellier F. Silvestre J.J. (1982). *Politiques Éducatives et Organisation Industrielle en France et en Allemagne. Essai d'Analyse Sociétale*. PUF, Paris.
- Méda D. (1995). *Le Travail: Une Valeur en Voie de Disparition.*, Aubier, Paris.
- MEDEF. (1998). *Journées Internationales de la Formation 1998, 'Objectifs Compétences'*. Deauville, Medef, 12 volumes.
- Michel S. (1999). *Education et Croissance Économique en Longue Période*. L'Harmattan, Paris.
- Morin M. L. (1996). Compétence et Contrat de Travail. *Cahiers du GIP Mutations Industrielles*, n°70.
- Moulier Boutang Y.(1999). *De l'Esclavage au Salarial. Economie Historique du Salarié Bridé*. PUF, Paris.
- Mounier A. (1995) - *Le Retour Salarial*. Communication au Séminaire International ORSTOM-MOLISA Sur l'Impact des Transformations Économiques sur le Développement des Ressources Humaines, l'Emploi et le Secteur Informel au Vietnam et en Asie du Sud Est. Hanoi, Novembre 1995, 1-38.
- Mounier A. (2000). *Families' Strategies Towards Education, Why it Matters?* Faculty of Education, University of Chiang, Thailand, juin, 1-18.
- Mounier A. (2001). *Towards Neo-Fordist Labour Relationships and Neo-Keynesian Policies of Full Employment*. ACIRRT, University of Sydney, Sydney.
- Naville P. (1956). *Essai sur la Qualification du Travail*. Editions Marcel Rivière, Paris.
- Offe C.(1984). *Contradictions of the Welfare State*. Hutchinson, London.
- Paradeise C. (1987). Des Savoirs aux Compétences: Qualification et Régulation du Marché du Travail. *Sociologie du Travail*, n°XXIX, Janvier, 35-46.
- Piore M.J and Sabel Ch.F. (1989). *Les Chemins de la Prospérité*. Hachette, Paris. (American edition 1984: *The Second Industrial Divide: Possibility of Prosperity*. Basic Books, New York).
- Polanyi K. (1957). *The Great Transformation: The Political and Economic Origins of Our Time*. Beacon Press, Boston. (in French: *La Grande Transformation. Aux Origines Politique et Économique de Notre Temps*. Gallimard, Paris, 1983).
- Prost A. (1968). *Histoire de l'Enseignement en France 1800-1967*. Armand Colin, Paris.
- Prost A. (1981). *Histoire Générale de l'Enseignement et l'Éducation en France*, 4 Volumes, Nouvelle Librairie de France, Paris.
- Prost A. (1997). *Education, Société et Politique. Une Histoire de l'Enseignement de 1945 à Nos Jours*. Seuil, Paris.
- Reynaud J.D. (2001). Le management par les Compétences: Un Essai d'Analyse. *Sociologie du Travail*, à Paraître.
- Rosanvallon P. (1992). *La Crise de l'Etat-Providence*. Seuil, Paris, (Première Édition 1981).
- Rosanvallon P. (1995). *La Nouvelle Question Sociale. Repenser l'Etat-providence*. Seuil, Paris. Published in English in 2000: *The New Social Question. Rethinking the Welfare State*. Princetown University Press, Princetown NJ.
- Roustang G. et Perret B. (1993). *L'Économie Contre la Société: Affronter la Crise de l'Intégration Sociale et Culturelle*. Seuil, Paris.
- Stroobants M. (1993). *Savoir Faire et Compétences au Travail. Une Sociologie de la Fabrication des Aptitudes*. Editions de l'Université de Bruxelles, Bruxelles.
- Supiot A. (1994). *Critique du Droit du Travail*. PUF, Paris.
- Supiot A. (Sous la Direction de). (1998). *Le Travail en Perspective. Droit et Société*. Librairie Générale de Droit et Gestion, Paris.
- Supiot A. (1999). *Au delà de l'Emploi. Transformations du Travail et Devenir du Droit du Travail en Europe*. Rapport à la Commission Européenne. Flammarion, Paris, pour l'Édition Française.
- Tanguy L. et Rope F (ed). (1994). *Savoirs et compétences. De l'Usage de Ces Notions dans l'École et l'Entreprise*. L'Harmattan, Paris.
- Tanguy L. (sous la direction).(1986). *L'Introuvable Relation Formation-Emploi. Un état des Recherches en France*. La Documentation Française, Paris.
- Troussier J-F. (1981). *Travail Individuel et Collectif dans Quelques Industries*. DGRST, Paris, IREP, Grenoble.
- Vacarie I. et alii. (1996). *Les Frontières du Salarial*. Sous l'Égide de la Revue Juridique d'Ile-de-France. Dalloz, Paris.
- Vernières M.(1993). *Formation emploi. Enjeu Économique et Social*. Editions Cujas, Paris.
- Wood S. (ed). (1992). *The Transformation of Work*. Routledge, London.
- Zanten Van A. et Robert A. (2000). Plus ça change...? Changes and Continuities in Education Policy in France. *Journal of Education Policy*, Vol.15, 1, 1-4.





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