

**The 'Network Economy' and Models
of the Employment Contract:
Psychological, Economic, and Legal**

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Abstract

The emergence of the so-called 'network economy' and the development of project-based work pose a fundamental challenge to established methods of regulating the employment relationship. There appears to be an unsatisfied demand for its greater use, especially among employers, and it is argued that this may be blocked by the lack of suitable contractual forms, such as those that have underpinned the established open-ended employment relationship. Project-based work seeks to retain some of the open-ended flexibility of the standard employment relationship in relation to its task content but not its duration. The paper argues the success of the standard employment relationship owes much to the articulation of its psychological, economic/incentive, and legal aspects. As yet, this appears to be lacking for more transient forms of relationship.

JEL codes: M55, K31, J44, J53

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The ‘Network Economy’ and Models of the Employment Contract: Psychological, Economic, and Legal

1. Introduction

The full development of the so-called ‘network economy’ depends upon establishing suitable forms of contracting between firms and workers. The classical employment relationship, open-ended as to both its task content and its duration, came to assume near universality in the advanced industrial world during the twentieth century because it succeeded in aligning employees’ psychological expectations, performance incentives, and a supportive legal framework. This gave rise to a contractual form which has combined great flexibility and a good deal of enforceability: hence the popularity of the open-ended employment relationship. It has worked so successfully in the past because it has evolved a number of incentive mechanisms, for shorthand referred to as three types of ‘contract’ (psychological, economic/incentive, and legal), all of which seek to deal with the non-codified elements of the relationship that underpin its flexibility. These are complementary and mutually supportive. However, they achieve this largely by means of the expectation of a long-term relationship.

The European Commission’s Supiot Report (1999) was among the first to call attention to the fundamental changes occurring in labour markets and the need to develop alternative forms of regulation rather than to try to push back the tide by reinforcing existing patterns of regulation. He and his colleagues sought to reconcile discontinuity of employment with continuity of activity in a chosen occupation, and concentrated on legal mechanisms. In this paper, I should like to focus more on the incentive and institutional mechanisms that underpin the open-ended employment relationship and how these articulate with legal norms in order to understand better the challenge posed by firms’ need for greater use of more transient forms of employment relationship. I should like to focus particularly on collaborative work with a team output rather than the traditional system whereby predetermined tasks are put out to freelancers such as in translation or publishing (v. Fraser

and Gold, 2001). In the latter cases, a specific product can be defined. The former case is much closer to the spirit of the open-ended employment relationship because team work requires adaptive and flexible roles, thus preserving something of the spirit of the open-ended employment relationship as concerns its task content, but without the implied open-ended duration. Such ideas are at the heart of the so-called network economy, the chosen theme of the 2003 IIRA congress.

Sydow and Staber (2002) identify project organisation and project networks as key organisational features of the 'network economy' as it is developing in certain economic sectors, such as the media industries. One might say that the project rather than the firm emerges as the focus of workers' activity. With this sector in mind, Jones and Walsh (1997) characterised the career system of workers as comprising three elements: movement between employers; validation from the labour market rather than the employer, and use of extra-organisational networks and information. A project might comprise an advertising campaign, a film, a CD or a book for example, on which a temporary team of people might work, bringing together a mix of business management, technical and creative expertise.

Baumann (2002) argues that project production and small companies have flourished in the media industries because:

- Media products, especially fiction and entertainment, resemble fashion items with constant audience demand for novelty and innovation;
- There is a high element of one-off creation of new material (as in fashion) which is highly risky as the outcome is uncertain;
- Once produced, the product is easily and cheaply reproduced (as contrasted with reproduction of models in such industries as automobiles where reproduction is highly capital and labour intensive);
- Dominance of one-off creation as opposed to continuous reproduction

Although these can be handled within large organisations, as was the case when large studios and large broadcasters dominated production, there are clear advantages to organising such activities by means of small firms and project teams. Indeed, although the initial impulse for dispersing production work in Britain and Germany owed much to their respective governments' competition programmes, it was not reversed when the immediate political pressures subsided (v. Tempest et al., 1997).

The emphasis on project organisation is not confined to the media sector. It has long been a feature of large-scale construction activities where each project is unique, and

demands a unique mix of labour skills. In several countries, this feature of the industry is recognised in employment law (eg. Calan, 2001). Indeed, Calan argues this model should be extended to small and medium-sized firms that engage in large orders because employing labour for such ‘projects’ enables them better to cope with the risks involved. Project work and project networks have also figured largely in accounts of work and business organisation in ‘Silicon Valley’ (eg. Saxenian, 1996, Scott, 1998, Carnoy et al. 1997). Similar pressures prevail there as innovation often takes place around new projects set up to exploit a new idea. University research is also often organised on a project basis, as is university collaboration with private firms, for example on scientific ventures (Lam, 2003). In England, for example, there is a strong correlation between universities’ scores in the national Research Assessment Exercise (RAE) and the percentage of non-tenured academic staff, with the top-rated Cambridge, London and Oxford Universities having 50% or more of their academic staff in fixed-term employment.¹

The relevance to other sectors is also stressed by writers, such as Cappelli (1999) and Osterman (1996), who have argued that the business environment has become more fluid and less predictable in recent years so that the offer of long-term employment has become increasingly costly to firms. Commonly cited reasons include rapid technical change, the expansion of knowledge-intensive activities, greater competition and social change, all of which mean that employment models developing within sectors such as media and information technology are likely to be of interest to other sectors where similar pressures may exist but in less severe forms. Especially in the latter sectors, the absence of a widely recognised contractual framework that all parties trust is likely to be a barrier to the development of more flexible patterns of economic organisation.

Despite these pressures, statistical indicators of a shift from the established pattern of open-ended employment contracts suggest only limited change. OECD (2000, ch. 5) figures for about 1997 indicate that self-employment in industry and services remained at about one worker in ten, increasing only slightly despite two decades of ‘deregulation’ in the 1980s and 1990s, and there was no uniform direction of change across countries. Likewise, the OECD average share of temporary workers increased very moderately between 1985 and 2000, and remained in the region of one employee in ten (OECD, 2002, ch 3). In similar vein, long-term

¹ These figures were extracted from the university performance league tables for 2000, published by the Times Higher Education Supplement in its issue of 14.4.2000. The median percentage of non-permanent staff across Britain’s 97 universities was about 40%. Overall, there is a correlation of 0.77 between university research ratings in the national Research Assessment Exercise and the percentage of non-permanent staff. The RAE is

jobs have not disappeared, an OECD (1997, ch. 5) study highlighting that although perceived job insecurity had increased among workers, long-term jobs remained the dominant pattern of employment.

Project employment is not a panacea. It is wise to remember the reasons commonly given for the rise of the open-ended employment relationship at the start of the last century, and why it displaced the many forms of labour contracting. Writing in 1919, Slichter stressed the deficiencies of the ‘drive system’ whereby contractors had little incentive to train workers, share information, and improve quality, and bargaining entered into every point in the relationship between the business and the human resources it mobilised. In a masterly survey of contractual forms before the rise of the open-ended employment relationship, Mottez (1966) contrasted the enthusiasts for hierarchies of sub-contractors who saw that ‘the eye of the master’ was at every point in the transaction with the risk that the haggling of the market intervened at every point making the control of complex production systems extremely difficult. Such pressures came to be held in check by the development of the open-ended employment relationship.

Since then, production systems and workers’ skills have increased in complexity, witness the growth in the college graduate workforce, and the virtual disappearance of the ‘unskilled’ category from employment statistics in many advanced industrial economies. Hence the search for new contractual models of employment cannot simply go back to the nineteenth century. What is often not appreciated, however, is the extent to which the open-ended employment relationship relies on a whole system of incentives to secure its effectiveness. Management does not direct workers to new tasks by fiat, nor do workers passively sign up to a system that allows their exploitation. The first part of this article outlines some of the key incentive structures that enable it to function, and in doing so, highlights how far employment duration is built into these. If there is a trade-off between numerical and functional flexibility it works only because of the incentive structures that surround it. In particular, it is argued that it has succeeded in aligning workers’ psychological expectations, economic incentives and legal supports – metaphorically, the psychological, economic and legal contracts. The second part of the paper then looks at project-based forms of employment and explores some functional equivalents of these incentive structures. Their lesser development outside certain sectors may help explain the limited growth of this contractual model in other sectors.

one measure of success in the competition for research funds, and it also serves as a quality index in the search

2. The Standard Employment Relationship: Incentives and Sanctions for Cooperation

The rise of the open-ended employment relationship is remarkable when one considers the system of contracting that it gradually displaced. At a time when most industrial workers would have been familiar with the haggling and low trust relations of the 'drive system', to endow that same management with the authority to determine the content of work after the price has been agreed might seem a recipe for exploitation. Yet given free labour markets, its attractiveness to employers could only be realised if workers also found it a suitable framework for their exchange and cooperation. Evidence of its effectiveness can be seen in its continued wide popularity (see for example Auer and Cazes, 2000).

By substituting an employment relationship for a series of open-market transactions, in the manner Coase (1937) observed, one does not eliminate the sources of conflict and opportunistic behaviour. Rather, the employment relationship has developed a platform of rules that helps to contain these so that both parties can achieve a reasonably effective degree of cooperation despite divergent interests. In doing so, it has transformed the firm from a coordinator of market contracts into an employing organisation. Around this platform has developed a set of employee expectations and beliefs, systems of incentives and a system of legal rules which reinforce its operation and effectiveness.

The basic structure of the employment relationship can be understood as the resolution of two sets of constraints: that the terms of the transaction between the worker and the firm should be enforceable, and that they should be productively efficient. In terms of workers' task obligations to the employer, two broad approaches have evolved: one relating workers' jobs to families of tasks they can be expected to undertake, and one relating them to functions within the enterprise. Resolving the link between firms' job demands and workers' competences, one can either start from the job demands and 'mould the man to the job not the job to the man' in the words of US production engineer (Piore, 1968), the 'production approach', or one can organise work and define task obligations on the basis of workers' skills, the 'training approach' (Sengenberger, 1987). These are summarised in Figure 1, together with some common examples of work rules associated with each set of solutions.

Figure 1. The contractual constraints and common employment rules

		Job demands identified by:	
		Production approach	Training approach
The focus of enforcement criteria	Task-centred	'work post' rule, common in bureaucratic work organisation	'job territory' / 'tools of trade' rule, common in craft organisation
	Function-centred	'competence rank' rule common in Japanese work systems	'qualification' rule, common in skilled work in Germany

Source: Marsden (1999, Ch. 2)

These rules have flourished where firms have been employing organisations. A great deal of recent work on psychological and incentive contracts and employment law protections, including the Supiot report itself, has focused on the enterprise-based 'production approach' as this has been the more widespread. They have neglected the occupationally-based 'training approach' for potential frameworks that can be developed for project-based work.

The work rules resolve the all-important problem of enabling the parties to determine boundaries to their respective obligations, but they do not eliminate all sources of opportunistic behaviour, and controlling these helps to reinforce its effectiveness as a framework for labour service transactions. The next paragraphs consider some of the more common ones, and seeks to show how they are supported by the actors beliefs and expectations, by incentive structures and by legal rules. It will be argued that these solutions are premised on long-duration employment, and hence are difficult to apply to more transient forms of employment such as might occur in project-based organisation. These concern problems relating to job performance and its evaluation, work assignments and the treatment of unanticipated and unusual tasks; risk-sharing and employment continuity; and training and knowledge sharing. In all cases, opportunistic behaviour may result from either party, and often the problem is to persuade one party that the other can be trusted to refrain from it. How each contributes to containing these four areas of opportunism is summarised in Figure 2, which also provides the template for the analysis in this paper.

Figure 2. Psychological, incentive and legal ‘contracts’ and opportunism in employment

Type of contract and problem area	Protections against opportunism
Psychological contract	
Performance & pay (valuation of the product)	Shared employee beliefs about the purposes of the relationship & the nature of mutual obligations with the employer. These converge with the duration of the relationship (Rousseau, 1995).
Work assignments, and unusual/unanticipated tasks	‘Citizenship’ to motivate undertaking unusual tasks: concept brings perceived obligations and rights (van Dyne et al 1994).
Risk sharing and employment continuity	Organisational commitment, loyalty to the organisation, as a form of risk-sharing (Meyer and Allen, 1997)
Training and knowledge sharing	Shared beliefs about the contribution of training and knowledge to the inherent quality of the service provided (eg. teachers).
Economic/incentive contracts	
Performance & pay (valuation of the product)	Widespread use of long-term incentives: deferred pay and career/promotion opportunities (Lazear, 1995)
Work assignments, and unusual/unanticipated tasks	Work rules and job classifications to delimit employees’ work obligations & reduce job idiosyncrasy (Marsden, 1999).
Risk sharing and employment continuity	Stable wage & employment with risk of lay-off managed through agreed lay-off procedures. Continuous employment a basis for ‘tit-for-tat’ cooperation (Axelrod 1984).
Training and knowledge sharing	Cost-sharing for investment in occupational skills; seniority incentives to invest in firm-based skills (Becker, 1975).
Legal contracts	
Performance & pay (valuation of the product)	Concepts of ‘implied terms’ and ‘goodwill’ enable some legal norms to bind on incomplete contracts (Collins 2001).
Work assignments, and unusual/unanticipated tasks	Anti-discrimination laws require clear procedural rules for work allocation and access to on-the-job training and promotion opportunities (Sorensen 1994).
Risk sharing and employment continuity	Legal provisions over dismissal and discrimination (eg. to prevent discriminatory risk shifting)
Training and knowledge sharing	Legal basis for participation can strengthen knowledge sharing by excluding unilateral withdrawal by management.

Much has already been written about these individually. I should like to concentrate on two points of special relevance for the development of more transient forms of employment: the complementarities between the three types of process, and the importance of time, or duration, in making the various control mechanisms effective.

2.1 'Psychological contracts'

The notion that there is a 'psychological contract' governing the employment relationship and which can enable its open-ended nature to function positively, and hold opportunistic behaviour at bay, has gained wide currency in recent years (eg. Guest et al. 1996, Guest, 1998). The most thorough analytical presentation of the concept has been given by Rousseau (1995). She summarises the psychological contract between A and B as comprising the following elements:

- Individual A's *belief* in:
 - *Reciprocal obligations* between A & B following
 - B's *prior promise* to the initial consideration of the exchange;
- Both B's promise and A's consideration are *subjective*
- A's belief in a psychological contract rests on a belief that B is acting in *good faith*, fairly, and in trust etc.

Although framed in terms of subjective perceptions of obligations, the latter relate to a number of social conventions that transcend the individual relationship. Promising involves the social or moral convention that one *ought* to keep one's promises. Such obligations are more than mere expectations of probable outcomes. The same is true of acting in 'good faith', and 'fairly'.

Given that human beings are subject to bounded rationality, then it is reasonable to suppose that they will operate with a limited number of categories of relationships, each with its own set of behaviour rules. Thus, employees will seek to identify the type of relationship they are in and attribute the appropriate set of obligations to other party. Although individual workers often have their own idiosyncratic ideas of what their employer owes them, it is clear that the more widely held such ideas are, the more effectively they can be enforced. Rousseau suggests that common enforcement mechanisms include a decline in an employee's motivation and morale, and the threat of 'exit' (Rousseau, p.135). Thus, those that correspond most closely to widely used social categories of types of employment relationship and their respective obligations will be the most potent. From the other side, employers can also seek to influence employee behaviour by the way they shape the reciprocal obligations of the psychological contract, for example, to encourage employee commitment by getting them to identify theirs as a long-term relationship with the organisation.

Turning to the common types of opportunistic behaviour that need to be held in check, employee beliefs about the type of relationship can be important, as can be those of managers acting on behalf of the company. For example, shared beliefs in providing a professional, or public, service may hold many employees back from providing the minimum effort they can get away with, or hold managers back from fiddling performance valuations to save money. These beliefs may be inculcated during training and socialisation at work, and then underpin strong psychological beliefs about the mutual obligations that apply within an employment relationship. Likewise, taking a broad attitude to the content of one's job, or sticking with an organisation during bad times, or being willing to train and share knowledge with new employees are all behaviours that make the open-ended employment relationship viable, and are commonly supported by shared beliefs about the purpose of the joint activity.

A notable feature of such shared beliefs and perceptions is that they take time to develop within an organisation. Socialisation into an organisation's values, such as public service, or the 'Hewlett Packard way', takes time. The most securely established antecedent of organisational commitment remains length of service (Meyer and Allen 1997). Trust underpins the willingness to share knowledge and communicate skills, yet trust too can be reinforced by shared beliefs and values between employees and their managers. Achieving a convergence between these takes time. Time is also important for each party to identify the underlying orientations and beliefs of the other. One learns about the quality of such acts when the commitment is tested, which happens periodically, and so requires time. It is said, for example, that Japanese employees' confidence in the promise of lifetime employment was only consolidated when the large Japanese firms incurred great expense to avoid lay-offs during the first Oil Shock (Koike, 1988).

The importance of duration is illustrated by Stone's (2001) comparison between the 'old' and the 'new' psychological contracts in the US (Figure 3). Lack of detail about the precise content of an employer's commitment could be resolved by applying certain benchmarks to the employer's behaviour, for example on the provision of job security or promotions, and observing these over time. Under the 'new' psychological contract, the behavioural benchmarks are less clear, and the intended duration of the relationship is shorter, so there is less time to learn about one's business partner's behaviour.

Figure 3. ‘Old’ and ‘new’ psychological contracts

‘Old’ psychological contract	‘New’ psychological contract
Job security	Employability security
Firm-specific training	General/transferable training
Deskilling	Upskilling
Promotional opportunities	Networking opportunities
Command supervision	Micro-level job control
Pay and benefits linked to job tenure	Market-based pay
Collective bargaining and grievance arbitration	Dispute resolution procedures for individual fairness claims

Source: Stone K. (2001).

2.2 Economic and incentive ‘contracts’

Many of the most widespread incentive reward mechanisms in employment both support and use its open-ended duration for their effectiveness. They also reinforce the employee beliefs and expectations about the relationship and the types of performance that are expected of them. For example, to deal with the performance and risk-sharing issues, two common features of employee reward systems stand out: the offer of stable wages and the use of incremental pay scales and promotion systems.

An almost universal feature of wage and salary systems is that pay is relatively stable compared with the fluctuations in the market value of employees’ output. This element of risk-sharing with the firm provides a valuable benefit to employees. It also provides the employer with a platform on which other incentive systems can be built. Taking the first area of potential opportunistic behaviour (following Figure 2 above), incentive systems play a large part in regulating performance by employees and the delivery of rewards by their employers. Many of these are of a long-term nature. For example, so-called ‘efficiency wage’ systems, whereby an employer pays above the market-clearing rate for a given category of workers in order to secure higher productivity, depend upon a flow of rewards to the employee. The longer the anticipated period of enhanced earnings, the greater the employee’s corresponding loss if dismissed for poor performance, and arguably too, the greater the ‘quasi-gift exchange’ to encourage above average performance². If the ‘efficiency wages’ related to the current period only, then their value as a sanction would be greatly reduced.

Incentive pay systems that rely on deferred pay, by definition, make use of the time dimension. A closer look at their dynamics, however, also reveals the complexities of

operating both the time and how they contain the continued presence of pressures of opportunistic behaviour. A common feature of career pay systems is that employees are initially hired with pay above their productivity while they learn the job. In mid-career, their productivity exceeds their pay, which serves both to pay back the cost of training, and to build up an investment in the firm. In their late careers, employees reap the return on this investment as their pay exceeds their productivity. The firm gains considerable advantages from this, as it provides incentives to undertake training that the firm needs, to work flexibly and loyally for the firm's benefit, and it gives the firm a useful sanction in the event of persistent poor performance. The key purposes of such systems are to motivate employees to learn the skills their employers need and to work cooperatively. However, as Lazear (1990) has shown, the key to a good working relationship is a clear date for termination. In the latter years, when pay exceeds productivity, there is a conflict of interest as prolongation brings a net benefit for the employee and a net cost for the employer. With a clear termination date, retirement, each party knows where it stands. Employees can tell easily if the employer is renegeing on its promise, and the employer is protected from employees demanding unwarranted extensions to their period of employment. Employees in their early careers can also gauge how trustfully their employer is behaving with regard to those currently coming to the end of their careers.

The risk-sharing component of employment similarly rests on a balancing of time-related benefits and rules that will withstand opportunistic manipulation. This component has been analysed by a number of economists under the angles of 'implicit contracts' (eg. Stiglitz, 1984) and the 'économie des conventions' (eg. Salais, 1989). It rests on the insight that by providing a steady wage, the firm is taking on the risk element arising from fluctuations in product demand. During good times, the value of workers' output would exceed their wage, and this would be retained by the employer as a payment into the implicit insurance fund. During bad times, the employer would honour the implicit agreement and retain workers and maintain their level of wages. For the 'conventionalists' the firm also gains a stable platform for coordinating complex production activities. However, firms do not have the resources to provide unlimited guarantees of job security, so the risk-sharing is limited by the opportunity to lay workers off when conditions become too severe. As a theory of voluntary unemployment, implicit contract theories may not have succeeded, but the

² For a discussion of different concepts of efficiency wage, see Akerlof and Yellen (1986).

essential insight into the dynamics of risk-sharing in long-term employment relationships is surely correct.

Given that there has been experimentation using wage flexibility as a means of extending employment security, as in the historic Volkswagen agreements in 1993/94, one might ask why risk averse workers should apparently continue to prefer stable wages with a higher risk of lay-off instead of a combination of more flexible wages and less risk of job loss. The answer would seem to lie in the difficulty of enforcing contracts in which pay tracks the market value of workers' output. If the firm has best access to the necessary information, then it is in a position to deceive workers about the true value of their output, and state that conditions are worse than they really are in order to gain a larger than necessary pay cut. To do so costs the firm little, and would increase profits. Even if their current employer were honest, many workers would suspect that the incentive to cheat is too strong and so they would be leery of this kind of contract.³ In contrast, declaring that business conditions are bad enough to warrant lay-offs means that the firm must also cut capacity and output which will reduce profits. Hence, the type of contract that best fits both parties is one containing a mix of a stable wage, which can be easily monitored by employees, and a risk of lay-off which is unpleasant for the worker, but also costly to the employer. This can also be monitored by agreed lay-off procedures. Although this may be a second best solution for both parties, given limited trust and the incentives to cheat, it emerges as the chosen contractual model because it is enforceable. Indeed, it is largely self-enforcing.

There are no doubt other reasons also why firms may prefer stable wages such as administrative simplicity and the fear of losing their most marketable workers to other firms, but mostly they complement the risk-sharing argument. Nevertheless, the importance of these examples is that they highlight the role of such incentive systems in supporting the employment relationship as an open-ended framework by building sanctions against kinds of opportunistic behaviour that would undermine it.

Incentives to invest in training, by workers and by firms, are simplified with long-duration employment, enabling the creation of internal labour markets which provide a framework for sharing both the costs and the returns of training. Likewise, knowledge sharing by senior workers with new recruits is eased if the former know the latter will not be used as substitute labour by their employer.

³ Should such levels of distrust seem implausible, one has only to reflect on the large number of public sector employees who thought that their management manipulated performance appraisal scores in order to avoid paying performance related pay (Marsden and French, 1998).

2.3 Legal contracts

The nature of the employment relationship as an open-ended agreement places it in a special position with regard to employment law. An ‘incomplete contract’ cannot be enforced by the courts in the normal way because its breach is not like that of other contracts where one can simply compare what was agreed and what has been delivered. This means that the law cannot get into the detail of the employment transaction. Rather, it provides a framework for cooperation, and focuses on certain key points in the relationship which it can enforce, such as procedures for termination, or very clear failures to carry out certain duties. However, as will be argued in this section, the mechanisms by which employment law underpins the employment relationship are adapted to long-term relationships and are much less adapted to more transient forms such as might prevail in project-based employment.

In recent decades, the debate among economic policy analysts on labour market regulation has tended to focus on the ‘constraining’ rather than the ‘enabling’ features of employment law. This was the sense of the OECD’s review of labour market regulation measures in its review (OECD 1999: Ch 2.). In contrast, Commons (1924) makes the case for the enabling function of law powerfully in his ‘Legal Foundations of Capitalism’. There, he shows how legal recognition of certain economic concepts made it possible to write legally enforceable contracts. For example, legal recognition of the exchange value of ‘goodwill’ and of ‘non-corporeal capital’ opened the way for new forms of economic organisation, including much of the modern business enterprise, just as it also opened up new sources of taxation⁴. In the domain of employment, arguably the smaller economic stakes in individual transactions have meant that greater reliance could be placed upon collectively agreed rules than in other business areas. Nevertheless, the development of a suitable legal framework that was adapted to the risks inherent in the employment relationship gave it a considerable boost, as will be explained below.⁵

⁴ The judgements he considers relate to whether the state should uphold the right of citizens to redress for loss of potential income rather than just loss of physical assets. In the 1872 case, the State of Louisiana had granted a corporation a monopoly to maintain the slaughterhouses in New Orleans, and regulated the charges made to other butchers. The latter contested the law on the grounds that it deprived them of their property without due process of law, a right established under the Fourteenth Amendment. The case hinged on whether ‘property’ meant physical assets, use value, which they had not lost, or whether it covered the exercise of their trade, exchange value, of which they argued they were deprived. In that case, the Supreme Court ruled by majority in favour of the older notion of property. However, by 1897, in the *Allegeyer* case, the Supreme Court recognised property as exchange value, including liberty of access to markets.

⁵ In fact, Commons devotes considerable space to arguing how the employment relationship should be understood as an exchange of goodwill, and how the recognition of non-corporeal capital also covered workers’ ability to earn a living from their skills: both essential elements of ‘at will’ employment. This was workers’

Commons (1924) argued that within the employment relationship, workers offer their ‘goodwill’ to their employer to apply their skills and talents within their jobs. Moral hazard would amount to reducing or withdrawing such ‘goodwill’ once the relationship had been established. With an incomplete contract, one might ask how the law can help enforceability. The solution, as stressed by Collins (2001) under English law and by Stone (2001) for US law, lies in the concept of ‘implied terms’ – what was reasonably intended at the time of engagement. Implied terms require some kind of benchmark. In many organisations, the use of job classifications provides workers, management and outside third parties with a guide as to the type of work and performance that can be expected from people with goodwill hired into certain positions. ‘Implied terms’ and job classifications also give employees some protection against excessive or unreasonable work demands.

Employees from more vulnerable groups in the labour market might fear that, with an incomplete contract, their employers might take advantage of their greater difficulties to find alternative employment to drive them harder or reward them less. Anti-discrimination legislation gives some protection in this area, but again, job classification plays an important part in enabling the parties concerned, and the law, to identify cases of unfair treatment. With the US experience in mind, Sorensen (1994) shows how the application of equal worth provisions depends heavily upon job classifications. These depend on stable organisations.

Renegotiation of the terms of employment has to occur periodically within employment relationships in order to take account of evolving job demands. The problem, as Teulings and Hartog (1998) argue, is how to engage this process without undermining the boundary between issues that are subject to bargaining and those subject to coordination by management authority. Major renegotiation often occurs during times of restructuring, such as when redundancies (dismissals for economic reasons) are being sought. Knowing that employees are concerned about the future of their skill and other investments they have made in their jobs, an employer could seek to exaggerate the extent of a downturn in order to impose worse terms than necessary on its employees. By means of collective bargaining, workers and firms have developed their own private means of resolving such issues so they can contain the risk of ‘hold ups’ by either side. Indeed, the precursors to much continental European legislation in this area can be found in such collective agreements as those in the

‘earning power’. A restraint of trade, such as a restrictive covenant limiting where they can work in the future, could deprive them of the earning power of their skills even though it did not remove their ‘use value’. Although ‘at will’ employment is often associated with the employer’s right to hire and fire at will, the employee likewise remains in the relationship ‘at will’.

Lorraine steel industry in the late 1960s (Reynaud, 1969). The law has helped generalise this approach to all sectors, including those where collective bargaining is much weaker.

Much continental European employment law has long established procedures by which firms may conduct the renegotiation that goes with restructuring. Under French and German law, for example, employer and employee representatives must agree a 'social plan' which details measures to minimise straight lay-offs, making full use of alternative measures where practical, and involving a considerable degree of consultation. In these countries, and in Britain, the law establishes certain minimum levels of financial compensation for employees losing their jobs. Both the procedural and the financial elements help to reduce the risk that redundancies are used simply to pressurise employees into conceding better terms to their employers. All these provisions presuppose that employment is a long-term relationship. Redundancy compensation is proportionate to length of prior service, and much employment protection is subject to a time threshold before employees become eligible. Consultative procedures for agreeing a 'social plan' work best with a stable workforce. To echo Stone's (2001) analysis, employment law is well-adapted to reinforcing the 'old' but not the 'new' psychological contract.

2.4 Articulation between the three kinds of 'contract'

One may consider the three different approaches as focusing on complementary processes that underpin the employment relationship, and in this respect they can be mutually reinforcing. Nevertheless, they are distinct from each other as they rely on different enforcement mechanisms.

Incentive contracts can steer performance in certain directions. However, they are unlikely to be completely effective because monitoring can never be wholly effective whether related to inputs of employee effort or to outputs of their performance. Motivation with regard to shared values and beliefs, and shared perceptions of mutual obligations, as expressed by the metaphor of the psychological contract, often provide an essential back-up. Incentives can also reinforce psychological contracts, for example, by communicating the kinds of performance that management values, and the kind of rewards on offer, for example, deferred pay and promotion schemes convey an expectation of durable employment.

The law sets wider parameters than either of these two processes, but it can reinforce them by making certain key elements of the relationship enforceable by third parties. For

example, redundancy provisions protect a key aspect of long-term employment, and limit the threat of dismissals as a tactic to force concessions from employees.

Each of the three processes relates also to processes outside the firm. This is especially true of employment laws that must be consistent with wider legal principles. An illustration of this can be seen in both Commons' (1924) and Supiot's (1994) accounts of the emergence of key legal concepts underpinning the employment relationship.⁶ The legal system's first response to newly emerging economic relationships was to seek to apply established legal principles, and then gradually to adapt them. As Supiot put it, contracts originally related to exchanges of property and the human element of labour never quite fitted. Gradually the practice emerged of integrating a special status and special rights for workers into the contract: 'englober un statut dans un contrat'. This is because systems of laws need internal consistency if they are to command the respect and confidence of citizens. Similar influences apply to the psychological contract, which, it was argued, will relate to a limited repertoire of possible relationships, mostly drawn from a pre-existing range of types of relationship. These will be the ones best understood by the parties.

What consolidates the position of the open-ended, long-duration employment contract currently is that it lies at the intersection between these three types of 'contract': psychological, economic and legal. This gives it great stability as a social institution, and great predictability for the employers and workers who adopt it as the contractual frame for their relationship. For the long-term relationship, all three elements provide compatible incentives and enforcement mechanisms. The next section explores whether they function as effectively to support more transient forms of employment.

3. Regulating Performance in Network Employment

It was suggested at the start that with network organisation, the firm gives ground to the project as the primary focus of employment activity. An old-fashioned way of thinking about this would be to suggest that with more transient relationships, both workers and firms will invest less in the current transaction, and the sanction of non-renewal of contracts will return to the fore. The problem of the long-term employment relationship, as Malcomson (1997) and Teulings and Hartog (1998) stress, is that the investments by both parties, for example, in

⁶ Deakin (1998) makes a similar evolutionary argument for Britain.

training and specific skills make each vulnerable to 'hold-ups' by the other side. With a return to shorter-term market transactions for labour services, do we not simply avoid these difficulties?

Project employment has developed in a number of sectors where creative activity is important. A brief consideration of some of the performance and product valuation issues will show that the incentive problems noted in the open-ended employment also occur in project organisation, albeit in a slightly different form. For example, a common feature of project-based work is that it resembles small batch or customer-centred production so that intensive supervision is often not a feasible option. Although there is a stronger focus on the final output and each team member's contribution to that than under the standard employment relationship, substandard performance may often not be detected until after the project is complete and the team disbanded. Likewise, abuse of the product by the coordinator may not become apparent until afterwards, when the collaborators can no longer easily apply sanctions. Collaborators may want to hold back their best or most creative ideas and use them to gain a position in a future project. They may also pick up ideas from others during the collaboration, and wish to exploit them themselves later on. The coordinator may seek to derive extra income from further exploitation of the collaborators' creative work, perhaps without telling them, or possibly by commercialising it in a way that damages their artistic reputation. Such factors were highlighted both by Paul and Kleingartner's (1994) study of Hollywood, and the British Film Institute's (BFI, 1997) study of the industry in Britain.

Thus even though the collaboration may be of finite duration during the project, the quality of the creative input and subsequent commercialisation ensure that the economic consequences extend well beyond. Whereas a dissatisfied employee or employer can use the quit or dismissal threat and loss of potential future rewards as sanctions, once the project is complete, there is limited come-back for either side apart from legalistic disputes over contract terms which are slow and expensive.

So what mechanisms exist to control some of these tensions within more transient forms of employment? A first clue is that many self-employed and fixed term workers, albeit imperfect proxies for project employment, are to be found in professional and skilled occupations. Looking across France, Germany, the UK and the US, the share of managerial and professional occupations among the self-employed in industry and services ranged between about one fifth and one third (OECD 1992, Ch. 4), and the strongest growth in self-employment has been among these occupations (OECD, 2000, Ch. 5). In the UK, over half of those on fixed term contracts are in the managerial, professional and associated professional

categories (Sly and Stillwell, 1997). Many others have office qualifications, for example, agency temps in clerical and secretarial jobs. In other words, the skill base of such employment is provided by means of transferable skills and educational qualifications, in line with the 'training approach' to work organisation and regulation outlined in Figure 1 above. Tolbert (1996) made a similar observation when surveying the growth of 'boundaryless careers' in the US.

Taking the occupation as a base provides a foundation for considering the three types of 'contract' as they might apply within project-based organisation. The occupation can provide a basis for a 'psychological contract' by means of the shared values learned during training and developed during practice as a member of an occupational group. Reputation within an occupational group can provide a functional equivalent to one's reputation among one's peers and superiors within a firm, and some legal support may be provided by measures of occupational licensing and entry regulation. Much of this, however, is premised upon the existence of formalised occupations whereas the evidence from studies of the media and software industries suggests that the occupational basis is often of a more informal nature, hence the use of such terms as 'occupational communities', and 'communities of practice' (Tolbert, 1996)⁷.

3.1 Social networks as bearers of 'psychological contracts'

Compared with long-term employment, project working has to rely on alternative motivational and monitoring devices that lie outside the organisation. Within a firm, both good and bad performance contribute to one's reputation with one's peers and with management (see Figure 2 above). In more transient forms of employment, one's reputation outside the firm will be the key factor. In a competitive environment, reports about other people's performance are notoriously unreliable, as they may be gossip, or even malicious, intended to undermine the standing of a potential competitor. One therefore needs to couple these with information about one's informant's likely motives. Often, this can be derived from social networks, hence the importance of what Granovetter (1973) described as 'weak ties' such as might exist among alumnus groups, members of an association or among those who often collaborate together (Dex et al., 2000). It is not just that one might trust reports

⁷ Tolbert (1996) defines a 'community of practice' as: individuals who actively share a core body of tacit knowledge that is necessary for the execution of concrete, everyday work tasks ...provide the foundation for occupations' p.339.

from such people more, but if they are dishonest, the chances are that that information will feed back into the network.

Reputation functions in two ways: as information about past, and hence likely future behaviour; and as an indication of one's commitment to certain occupational norms and standards. There has been much emphasis on the first, in the tradition of Williamson (1985), but the social and professional groups that support networks also carry norms of correct behaviour for their members. Saxenian (1996) stresses that the networks for sharing ideas and getting jobs within the occupational communities of Silicon Valley are also social networks, and so will carry some measure of shared identity and values. Likewise, in the German media industry, Sydow and Staber (2002) stress the social and legitimation role of networks as a support to coordination by underpinning certain standards of behaviour. In the case of craft and professional skills, norms of pride in one's trade guide both parties as to the level and quality of performance that can be expected (Scullion and Edwards, 1988). In return for this, management often do not supervise craftsmen closely, but equally, one can see that if individual craftsmen repeatedly failed to perform, they would be seen as letting down their colleagues.

This last example highlights an additional feature of the obligational side of reputation, namely, that reputation for good and reliable performance is also a collective good of the whole occupational community. Thus poor performance not only damages one's own standing, but it also gradually undermines that of the whole occupational community. Given the informal nature of many such communities, moral rather than contractual sanctions have to apply.

Thus one can see reputation functioning both as an informational incentive, and in the obligational manner that underpins 'psychological contracts'. They inform the individuals concerned as to the appropriate expectations and obligations of the relationship – in the above craft example, obligations of good performance by the worker, and respect of autonomy by management.

3.2 Functional equivalents of deferred rewards in transient employment

In the open-ended employment relationship how the fruits of collaboration were shared was one of the foundations of financial incentive systems. Similar incentive problems exist in project work, as noted above. In particular, it can be difficult for project coordinators to

motivate their collaborators to give of their best, for example, in creative work where there is often an incentive to hold back one's best ideas for future projects (eg BFI, 1997).

Two functional equivalents of 'deferred salary' have achieved some notoriety in sectors with a high degree of transient employment, although their coverage of workers in the sectors is far from universal. The first concerns royalty-type incomes, and the second, various forms of employee share ownership, such as stock options. In their study of Hollywood, Paul and Kleingartner (1994) found that 'residual incomes' make up about 45% of total earnings for members of the Screen Actors' Guild. These were analogous to royalty incomes derived from additional commercial exploitation of an artistic work, for example, use of Disney film logos in marketing children's merchandise. Such payments helped to smooth actors' incomes in between jobs, especially important given the uncertainty about the timing of future work. However, it also provides an important incentive because the film's success will determine its usefulness for marketing other products, and hence the flow of residual incomes. Thus media workers can have an incentive to share their most creative ideas because it will boost their future residual incomes.

Stock options, which have been very popular in Silicon Valley, provide another form of deferred income (Sesil et al 2002). Like the royalty-type payments, stock options can be seen as an incentive scheme to motivate workers to perform well while working in transient employment relationships. The value of an employee's output may not become apparent until after the relationship has ended so the employer has few punitive sanctions at its disposal. In so far as the value of the employee's contribution is reflected in the company's value, then a stock option provides a way of linking her future wealth to the quality of her current work input.

Although often discussed with reference to top management pay, stock options have also spread among other employees. Sesil et al (2002) cite current estimates of use of 'broad-based' schemes in 'new economy' activities in the US as involving 30-40% of all firms, with a sizeable additional percentage of firms considering their adoption. Subject to some important reservations, the authors find that use of broad-based stock options was associated with higher productivity, but not apparently with faster knowledge creation (as measured by patents).

Looking more widely, there are signs that the spread of performance related pay has been associated with more transient employment: as a substitute for promotional incentives and commitment mechanisms based on the implicit promise of long-term employment.

Because it is able to operate over a much shorter time span, it can be integrated into shorter duration employment relationships.

3.3 Employment stability and training within an occupational community

Just as hiring and firing by the firm play a part in incentives to perform, so gaining access and losing one's place in an occupational community can serve as important sanctions. The functional equivalent to a stable job in a firm is regular access to employment by virtue of membership of an occupational community. Many years ago, Kerr (1954) contrasted the modes of entry into 'craft' compared with 'industrial' (enterprise-based) labour markets, in the first case based on the worker's decision to train and in the second on the employer's hiring decision. Indeed, he likened the craft labour market to a hiring hall. They also gave rise to contrasted patterns of income and employment security.

The traditional path into a craft or a professional occupation has been through some kind of apprenticeship. In this, trainees typically share the cost of training with their employer by working, during the training period, for a low wage, below the value of their output thus enabling the employer to recover some or all of the cost of training (Becker, 1975). A variety of mechanisms exist for such investments ranging from formally organised programmes of training, as in apprenticeships, to the practice of gaining experience while working long hours for low pay as new entrants compete for access to professional work (eg. Landers et al. 1996). In the German media industry, employers have managed to establish an effective formal apprenticeship for some occupations, although the turnover among project-based organisations meant that many firms lacked the resources and continuity to support the traditional model of a three-year apprenticeship (Baumann, 2002).

In the absence of a well-developed formal apprenticeship, in the British film industry, it appears that many young workers in the media sector, who work very long hours on low earnings, do so as a means of gaining access to subsequent employment (BFI, 1997). This is consistent with the large dispersion of earnings within the media sector (the BFI reported roughly 7:1 for the top to the bottom decile in 1996), with many of those on low earnings likely to be aspiring members of the occupational community, paying for their experience and access by long hours on low pay. Jones and Walsh (1997) observe analogous career processes in the network-based US film industry as workers compete to move towards the 'inner core' of better paid more interesting work.

Such investments underpin occupational communities. They create both a common occupational identity and a shared economic resource to which access is secured by occupational membership. The shared investment gives all members a common interest in maintaining performance standards, which assures the future supply of work to the whole occupation. Peer recognition within the group ensures individual access to future work, and hence continuity of employment. In this respect, there is a parallel with the continuity of employment provided by the standard employment relationship, and loss of one's reputation has a parallel in dismissal.

Finally, the career process of progression towards more interesting and better paid work observed by Jones and Walsh (1997) suggest a functional equivalent to the deferred pay mechanisms discussed earlier.

3.4 Representative institutions, credible commitments and contract enforcement

One way in which employment law underpins collaboration within the open-ended employment relationship is to make enforceable certain key items that have been agreed. These enable the parties to make credible commitments which the other party knows can be enforced if necessary. These depend to a large extent on being able to identify certain critical procedures and actions, and although the legal concept of 'implied terms' provides some flexibility to deal with non-codified commitments, there are limits to how far it can reach. One of the recurring features of project-based employment highlighted in recent research has been its informal organisation, and hence the difficulty of using the law to underpin collaboration.

Collins (2001) has argued that one of the barriers to more flexible employment patterns generally is the limited means employers have at their disposal to make credible promises to their employees. He was particularly concerned about the difficulties of enforcing promises in relation to such concepts as training for 'employability' which make no specific commitment to a particular kind of training. The concept of 'implied terms' he suggests does not stretch sufficiently far, in English law at least, to enable the courts to enforce such promises. Stone (2001) has highlighted similar difficulties under recent US law. She cites additionally a number of cases where the American courts have upheld employer claims over restrictive covenants concerning use of knowledge of potential customers, and on human capital. These would make promises by individual employers even less credible in the eyes of their collaborators.

Might the law play a role by supporting representative institutions, and so reinforce the procedures underpinning expectations and incentives within project working, rather than underpinning substantive outcomes? Networks often need an institutional basis particularly if they are to control access, and to exclude unreliable elements. For example, in the English private security industry, which practices a wide variety of contractual structures, occupational licensing has been used as a means to promote staff training, raise quality and to eliminate criminal elements (Home Office (Great Britain), 1999). In this example, the occupational closure introduced by licensing is intended to foster a stronger institutional organisation of the sector, for example, in matters of training and quality improvement, and to eliminate ‘free-riders’ that trade on the reputation of better firms.

In Paul and Klingartner’s study, the Screen Actors’ Guild played a key role in the negotiation of artists’ contracts and in keeping track of residual payments. This naturally placed them at the nerve centre of social networks in that sector. At a very minimum, they needed to maintain an up-to-date list of addresses and members’ financial details. In Silicon Valley, Saxenian (1996) and Tolbert (1996) stress the key role played by major research universities, which vet the reputations of the professors they employ, and filter the students they select. University positions also provide professors engaged in commercial research projects with an independent career structure and stable employment. Like the unions in Hollywood, these provide an essential anchor for social networks, which can, in turn, help to make promises about employment conditions and quality of service more credible.

4. Articulation of the Three Types of ‘Contract’ for the Network Economy

Compared with the long-established employment relationship, one might consider project-based employment as being open-ended in terms of collaborators’ task obligations, but not so in relation to its temporal duration. People may well collaborate on successive projects, but the implicit promise of open-ended duration employment is absent, and renewed collaboration is contingent on getting new commissions. In this respect, project-based employment differs also from many common forms of freelance work where the parties contract for a specific product, such as translating a document.

This paper has argued that the open-ended nature of the standard employment relationship rests on a closely articulated set of incentives and sanctions, and that duration has

been built into the core of many of these. Thus if project-based employment is to spread more widely as a contractual form in modern economies, it has to find functional equivalents of these incentives, and a new articulation of the processes underlying the psychological, economic/incentive and legal/institutional 'contracts'. It has been argued that this is possible, and indeed, is achieved in a limited number of economic sectors. However, conflicts between these 'contracts' are numerous.

Often the presumptions of employment law conflict with the patterns of expectations required for project employment. Calan (2001), a leading member of one of the French employers' associations, and himself head of a small firm, expressed the difficulty for small firms in taking on large projects when the 'psychological contract' was adapted to long-term employment. This presumption is built into and reinforced by French employment law. Small employers may have the legal right to lay-off for economic reasons such as the loss of a major customer, but how do you manage this as an employer when those to be laid off may be relatives of other employees, and dismissal, even for economic reasons, has a connotation of fault, if not as the initial cause, then in the reason for selecting particular employees for lay-off? Apart from the immediate effect on the employees concerned, is the effect on the morale of those remaining with the firm. Could not French law be adapted so that it would send a different signal about the implied relationship between employer and employee in such circumstances? Both Calan and Supiot suggest that it could.

In the cases of Hollywood and Silicon Valley, the types of reward system used also gave a distinct signal to collaborators and employees about the expected duration of the relationship: royalties signal income after completion of the work, and stock options signal a continued financial relationship because it is envisaged from the outset that the flow of economic rewards will outlast the flow of labour services. However, the biggest study of the British film industry, which included information on earnings levels (BFI, 1997), makes very little reference to innovative reward systems despite their prominence in US studies, suggesting that piece contracts and pay for time worked remain widespread. In other research, when performance issues are discussed, the reported emphasis is on reputation and access to future work as the key incentives (eg. Blair, 2001).

Given the reputed informality of much project-based employment, one might expect that norms of good performance, such as those learned during training, would be mobilised in order to reduce the risk of moral hazard by the parties. This brings the issue of occupational communities very much to the fore as the key incentives to regulate the performance and behaviour of coordinators and collaborators. It is also the most difficult element to replicate

because of the number of different actors involved in their creation. The examples found in the media industries point to diverse historical origins: Hollywood with the break-up of the large studios and the discovery of a new role by the leading unions; in the German and British television industries, with deregulation and the break-up of the dominance of the large producing companies. In each of these cases, a body of skills had been built up around major employers, arguably solving some of the collective action problems in founding multi-employer occupational training systems (Johansen, 2000). In Silicon Valley, and other high-technology 'industrial districts' such as in south-east France, government programmes and research universities have provided the seedbed on which a skilled community could develop.

All of this suggests that project-based employment has a long way to go before it could displace the standard open-ended employment relationship from its pre-eminent position in the world of work. As Osterman (1996), Cappelli (1999) for the US and Grimshaw et al. (2002) for the UK have argued, it is increasingly difficult for firms to use internal labour markets as a means of assuring functional flexibility among their workforces. Project-based employment offers a framework that is open-ended with regard to work content but not duration, and so offers a possible solution to this problem. As argued in this paper, outside certain sectors, key elements of this contractual form are still lacking, and even within those sectors, it seems that the degree of complementarity among the three incentive processes, and the extent to which they are mutually reinforcing, falls far short of that achieved for the standard employment relationship.

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