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Veröffentlichungsversion / Published Version

Zeitschriftenartikel / journal article

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Rainer Hampp Verlag

Empfohlene Zitierung / Suggested Citation:

Gehin, J.-P., & Mehaut, P. (1995). The German dual system: a model for Europe? *Industrielle Beziehungen : Zeitschrift für Arbeit, Organisation und Management*, 2(1), 64-81. <https://nbn-resolving.org/urn:nbn:de:0168-ssoar-344732>

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Jean Paul Géhin, Philippe Méhaut*

The German Dual System: A Model for Europe? **

The strength and flexibility of the dual system are generally explained by the consensus it commands in the German system of industrial relations. Moreover, many studies attribute economic success, especially in exports, to the quality of vocational training which upholds this system (Steedman and Wagner 1990). It is thus to be expected that this would attract much attention particularly in the European countries where the school systems seem to be in a period of crisis. Based on a comparison with France, this article seeks to give a broader and more dynamic reading of the German dual system and to include further training. It argues there has been a rise in internal strains within an 'occupational' model which could radically transform its bases, as concerns both schooling and work organisation and workforce management within the enterprise. It will then examine the current changes in the French model, which approach, but by other ways, a more occupational structure for the labour market.

Die Stärke und Flexibilität des dualen Systems der Berufsausbildung wird im allgemeinen mit dem sozialen Konsens im deutschen System der industriellen Beziehungen erklärt. Viele Studien führen sogar den wirtschaftlichen Erfolg, speziell im Export, auf die Qualität der Berufsausbildung zurück, die dieses System stützt (Steedman/Wagner 1990). Deshalb ist zu erwarten, daß das deutsche Modell auf das besondere Interesse in den europäischen Ländern stößt, in denen das Bildungssystem in einer Krise zu stecken scheint. Basierend auf einem Vergleich mit Frankreich wird in diesem Beitrag versucht, eine dynamischere und globalere (die berufliche Fort- und Weiterbildung umgreifende) Sicht des deutschen dualen Systems zu entwerfen. Es wird argumentiert, daß sich die internen Spannungen des 'beruflichen' Modells verstärkt haben und seine Grundlagen radikal verändern, sowohl was die Ausbildungsmethoden als auch die Arbeitsorganisation und die Arbeitsbeziehungen in den Betrieben anbelangt. Anschließend werden die aktuellen Veränderungen des französischen Modells untersucht, das sich - von einer anderen Seite - einer mehr beruflichen Struktur des Arbeitsmarktes nähert.

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** Artikel eingegangen: 24.10.94, revidierte Fassung akzeptiert: 30.1.95.

1. A truncated vision of the system

The German system has been attributed every virtue and raised to being an almost universal model for vocational training by many observers in France long since fascinated by it. Comparison of the French and German systems relativizes of this dominant view, underlining that it conveys a truncated vision, focused on industrial apprenticeship (and more specially that in in large firms). By putting industrial apprenticeship back into the context of dual training and more widely of the German education system, and by introducing further training, this vision can be corrected (Géhin and Méhaut 1993) along with the all too often simplistic contrasts between the French and German systems which shape it.

a) This is true of the traditional division between vocational and general training. The centrality of the German education system and its capacity to train the large majority of young people invites comparison with the French education model, which stresses general education to the detriment of some vocational qualifications (especially those for blue collar and office skills). These differences, which have historical origins, must not be exaggerated.

Bearing in mind the changes in the last three decades, we can see that the two systems have tended to draw closer to each other: in France, the expansion and particularly the revaluation of vocational training with the creation of streams like the two year technological courses (post-baccalaureate) in university technology institutes (I.U.T.) or in secondary schools (S.T.S.), the vocational baccalaureate or the four year courses in university vocational institutes (I.U.P.); and in Germany the growth in the relative importance of high schools and universities. Thus, although the number of those without vocational qualifications remains higher in France this is not so amongst the younger population¹.

The modes of guidance for vocational training clearly diverge: the enterprise versus the school; but this different division of responsibilities has no major effect on the type of knowledge transmitted. In Germany the importance of the enterprise has not led to the development of over-specialized training, the priority being given to broad-based knowledge and the acquisition of basic techniques. In France the development of vocational training outside the productive system has not led to a general non-recognition of qualifications produced by the schools. Whereas the recognition of qualifications on entry into employment is less systematic in France, it is delayed rather than rejected: the qualification is simply considered to represent potential ability which may only be recognised after a period in the company². In other words, the early socialisation into skill is externalised from the training process in France whereas it is integrated into it in Germany.

¹ It has been shown that 55% of French people between the ages of 16 to 32, in 1985, were involved in vocational training ; that is to say percentages which are close to, but a little lower than those of Germany (Erbes-Seguin, Kieffer and Gilain 1990). More recently, the number of unqualified school-leavers has dropped to under 100,000.

² This is a good indication of the logic of an 'internal labour market' rather than of an 'occupational labour market'.

b) Another difference often mentioned between the two countries rests on this observation: one of the cardinal virtues of the dual system is its capacity to integrate young people into employment, while the French schools are apparently responsible for the high unemployment rate among the under 25s. It is true to say that the unemployment structures differ considerably between the two countries and the strong focus on the young in France reinforces the thesis of structural unsuitability of the French education system; and this more so since statistics show the chances of being unemployed are lower the higher is the level of training. However this thesis seems rather one-sided and partial, and three elements must be included in the analysis:

- The first concerns demographic differences which are a major influence on the employment situation of young people; while large age cohorts continue to enter the labour market in France, the fall in the population, which began a long time ago, remains pronounced in Germany (Moebus and Sevestre 1991).
- The second is the observation that scholastic and social exclusion, usually attributed to a dysfunction in the education system in France, also arise in Germany; and is likewise concentrated in geographical areas or in disadvantaged social groups (notably second generation immigrants).
- The third concerns the whole structure of unemployment in the two countries. If under-employment tends to be concentrated on the young in France, in Germany it is on other groups and especially the older women. In fact, France, earlier than Germany, made great use of the early-retirement systems, causing rather perverse effects for some of the employees concerned, prematurely excluded from the labour market; for firms, which suffered imbalance in the age structures of their workforce, and loss of experience; and for public finances.

Going beyond the question of training quality, the clear differences in the structure of unemployment reflect the basic characteristics of the 'societal' model. Seniority and experience prevail in France whereas the German socio-economic actors (management and works councils), strongly engaged in apprenticeship, stress the employment of young people in order to maintain the bases of the dual system.

c) This overall sharing of responsibility by the different actors of the German productive system for vocational training of young people, considered as a 'public service', is often analyzed as a main element in the dual system³. The consensus around apprenticeship should however conceal neither the general architecture of the German education system nor the internal segmentation of the dual system.

Must we recall the existence of three relatively separate tracks of secondary education in Germany (Hauptschule, Realschule and Gymnasium), recruiting children from different social categories? Due to its ability to attract a large majority of young people regardless of their social or educational origins (and moreover their socio-professional destinations), the dual system plays an undisputed part in unifying

³ In that, for some firms, it is practically impossible, bearing in mind the consensus, the institutions which back them up, and the risks for their image, to withdraw from apprenticeship. This does not preclude, notably for the SMEs, the advantages of using, at a reduced cost, the younger workers.

German society; a function close to that accomplished by the unified secondary school system in France.

However, beyond its formal and institutional unity, the dual system is characterised by strong internal heterogeneity. We may contrast three elements: the quality of the training followed; its subsequent social and vocational value; and its ability to attract the young and their families. The size of the firm and the occupation prepared are the two basic elements of segmentation (Lutz 1992).

Thus, apparent homogeneity and internal differentiation are combined. This paradoxical characteristic is without a doubt a bonus (and also a limit) for the dual system. Faced with current social and economic changes, the question is whether it can continue to fulfil its role of social unification while achieving ever greater vocational differentiation of the young people passing through it.

d) One final, often mentioned, characteristic of the vocational training system in Germany is its position within firms. Here again there is a striking contrast between the German firms with a strong investment in employee training and their French counterparts which have practically none.

This view is based on a limited appreciation of initial vocational training and fails to take account of further training which is gaining importance in both countries, even though the general organisation of the actors diverges considerably. In contrast with a system of further training in France which is extremely codified and institutionalised, in which the enterprise is a main actor⁴, we observe a more diffuse set of practices in Germany which are rarely analyzed as a global system, and which stress individual initiative.

In the area of further vocational training, we may identify three different tracks which are generally considered independent and only loosely articulated, and whose relative importance differs from that in France:

- Informal training, which for want of another term, may be described as 'on the job training'. This training is linked to concrete work experience and reflects patterns of work. Scope for skill development is provided because work organisation is geared to the integration of apprentices (eg. the pedagogic role of the 'Meister' for the apprentices extends to the on-the-job training of the other employees). These training practices reach their limit when the training objective is no longer the reproduction and transmission of existing knowledge but the acquisition of radically new knowledge and know-how. The value attributed to on-the-job training in France is small, bearing in mind the weakness of company traditions in this field and especially the dominance of formal education which leads to the non-recognition of informal training practices.
- The second track (Zweiter Bildungsweg) consists of a set of state (or publicly financed) channels providing either full or part time courses (evening school) and targeting adults or young people having completed their initial training. It is notably a means of preparing university entrance for those who have completed an

⁴ notably by the clause in the 1971 legislation which imposes an obligatory contribution for firms to for the further training of their employees, while leaving them the power to decide how the funds should be used.

apprenticeship. This is complemented by opportunities for advancement which prolong apprenticeship and which constitute an important track within the German vocational training system. Through their role in providing access to intermediate qualifications for a number of qualified workers (generally at their own initiative and sometimes at that of their employers), they open the way to such jobs as technicians, foreman or even engineers. Generally, they are validated by a diploma and are recognized in collective agreements, and constitute an increasingly important element of worker advancement and, thus, extend the prospects of vertical mobility offered by the dual system. Individual initiative and the principle of certification dominate. These kinds of individual study from the point of view of social and professional advancement existed in France. However, they have declined considerably in the last thirty years and were, in any case, never sufficiently developed to influence the educational strategies of families as they were oriented towards vocational education and subsequent access to jobs by promotion.

- Lastly, German firms currently organize more and more firm-specific further vocational training. It is usually short, aimed at adapting to technical and organisational change and primarily addressed to management. This type of training greatly developed in the eighties, sometimes to the detriment of the two earlier types. It is, in contrast, the principal kind of further vocational training in France (Géhin and Verdier 1987; Méhaut 1990).

Thus one can observe a system of further training⁵ in Germany that is characterised by opposed tendencies: on one hand, increasing fragmentation, loss of transparency, and an increased emphasis on individual dimensions; and on the other, the persistence of a segment, apprenticeship, which continues to provide opportunities for qualification and advancement, and which continues to attract many young people.

If recent changes are taken into account, and especially if we consider further training, the traditional image of the place of the enterprise in vocational training in France and Germany is disturbed.

Monographic studies and statistical data converge to underline that the educational investment of large firms (of more than 2000 employees) in the two countries is now comparable (around 5% of the wage bill at the end of the eighties). However the educational strategies are sharply contrasted: in Germany firms of all sizes are heavily involved in initial training but less so in further training whose cost and responsibilities are largely left to individuals and public bodies. In France, the educational investment of firms generally takes the form of further training in which it plays an important and central role⁶.

⁵ The French observer tends indeed to highlight the articulation between the different actions and their general coherence.

⁶ In some recent research on the food industry, Mason, Van Ark and Wagner (1993), while concluding that the productivity differential between German and French workers was explained by initial vocational training, have been led to relativize this conclusion once account is taken of further training.

The educational strategies of firms in the two countries differ therefore in the type of training, initial or further, which relate to the training options of the workforce, before or after recruitment, and thus to the characteristics of labour markets in the two countries.

2. The key features of the German system: high coverage by vocational qualifications and an occupational basis for labour markets.

Most observers agree on a stylized representation of the German labour market where an occupational logic dominates, in contrast to the French one where the importance of the enterprise internal markets is underlined (cf. notably Marsden 1991).

The German occupational labour market thus rests on the importance of training and diplomas: access to skilled jobs at different levels is based on this criterion and the inter-firm mobility is possible without downgrading whenever the diploma is recognized. Thus in Germany young workers are more qualified than the average employee while in France the opposite is true: in Germany the 'Facharbeiter' (skilled worker) diploma provides a high probability of access to skilled jobs at younger ages and thus plays, in the access to jobs, a strongly discriminating role. In France the chances of occupational downgrading at the moment of employment are higher (Moebus and Sevestre 1991). The German occupational model gives, in a way, employment guarantees but the career prospects within the same category are slim, except when changing categories (eg. changing to foreman). On the other hand, the typical model of the internal market attributes great importance to lower level entries. The firm creates vertical mobility according to its own rules (eg. seniority). Further training is only generally applied 'ex post' in order to reinforce qualifications gained by experience, and to validate promotions based on other criteria.

Let us look more closely at some crucial points of the German occupational model⁷.

a) A first key point lies in the continuity between the production of basic skills of blue and white collar workers and those of intermediate levels (Meister, Techniker (foreman/women and technician)). Most of the access to intermediate levels is through promotion and, increasingly, with a corresponding diploma: according to Drexel (1992) from 1975 to 1987, more than 90% of the access to 'Techniker' posts came through internal promotion (for a small majority with an apprenticeship diploma only, and for a minority of growing importance through the Fachschule and technicians' diploma acquired by further training). In France, at the same time, the fast growth in the technician category was due, on one hand, to promotion often without diplomas, but significantly, on the other hand, to external recruitment of young holders of the DUT or BTS diplomas.

⁷ By the occupational model, we mean the conjunction of an educational system where vocational training is quantitatively and socially dominant and of an occupational type labour market, which requires the possession of a diploma for access to the main skilled posts. The conjunction of these two characteristics highlights a significant difference between the German and the English occupational models. In the latter, organised vocational training is markedly weaker.

In quantitative terms the result is analogous: the two countries have been able to cope with the expansion in the intermediate categories in the last three decades. On a more qualitative scale the effects are quite different.

In terms of mobility, in Germany, this rising use of formal qualifications for both access to employment and promotion has strengthened the basic occupational logic of the labour market, notably facilitating inter-firm mobility when promotion occurs. Zighera (1987), using aggregate European data for 1979, 1981 and 1983, concludes that for the totality of external job movements (entering employment, leaving it, becoming unemployed, changing sector) France is just on the European average and Germany significantly above. This phenomenon can be explained, among other things, by the maintenance of a high level of inter-sectorial mobility in Germany: for 100 stable males, 5.7 would have changed sector in France, against 12.8 in Germany. In contrast the movement between inactivity and unemployment is slightly higher in France. The continued high rate of inter-sectorial mobility in Germany, despite a sharp rise in unemployment, can be explained by the greater individual guarantees offered, in the case of external mobility, by the 'occupational' logic of the labour market.

However, it would be mistaken to conclude that seniority rules play no role in large German firms. Thus for example, looking at the *Facharbeiter* (and skilled workers in France), respectively 17% and 10.5% of skilled workers have a length of service greater than 20 years. Attachment to the firm is thus strong in the two countries. The lower percentage for France can be explained by a rapid reduction in activity rates of those aged over 60 (lowering the retirement age) and by the size of age-related measures (in big firms retirement at 50 is common). In contrast, the figures for supervisory staff are very different: promoted on-the-job, the French foreman/woman has a significantly higher length of service than the German *Meister*.

In terms of work organisation, in Germany, promotion has provided a link between blue collar skills and those of intermediate categories: sharing the same basic training, and the same work experience eases cooperation while guaranteeing at the same time a relative proximity to the intermediate categories, and a distance made legitimate by increasing certification. In France, the growth of the technician category, fed largely by school-leaver recruitment, translates into a greater distance from blue collar categories, because of heavy employment of technicians in indirect functions (work study, maintenance, organisation/planning ...) reinforcing a number of the traits of French 'taylorism'.

Employers' concern about initial vocational training in Germany is self-reinforcing. Recruiting the core of their intermediate categories from among blue collar workers and with no other path, the German employers could not afford to neglect the quality of blue collar training (and thus of apprenticeship). In contrast, faced with a regularly growing supply of young DUT or BTS level students, French employers could be less concerned about blue collar skills because these were not the key to intermediate categories. In any case, French firms were already only modestly concerned with the initial training of young people. Moreover in Germany, the existence of these promotion opportunities contributed greatly to the appeal of

apprenticeship for young people, including for example those coming from the Realschule, providing an alternative means of advancement to that of further secondary education.

b) A second point to be considered is that of the overall management of human resources by firms. One of the more intriguing aspects for the French observer is the apparent stability of apprentice intake by firms including during periods of lay-offs. We might add, until the beginning of the nineties, that employment adjustment was 'gentler' in German companies: less sensitivity of the volume of employment to the economic situation; greater hesitation concerning mass lay-offs (even if, and we will come back to it, this has changed in more recent years). The economic difficulties are of course different in the two countries. Indeed the employment policies in France have greatly accentuated such phenomena by emphasizing the use of early retirement schemes. Nevertheless, in employment adjustments a short term perspective, both up and down, is apparently more noticeable in France than Germany.

Interpretations linked to the financial horizon of firms, and to the role of the banks, have been put forward (Soskice 1991). They can probably be complemented by two features of the dual system.

First, the involvement in initial training (and the aforementioned need to guarantee worker qualifications) creates an irreversibility, limiting the ability of employers to stop or reduce drastically the flow of apprentices. A good example is the steel industry, which, in both countries, saw a notable fall in the labour force, especially in France. In Germany, apprenticeship has been maintained and even developed; in France, the industry has become almost totally closed to young people. Secondly, the existence of occupational structures in the labour market facilitates voluntary mobility and enables companies to count on a relatively regular flow of wastage, even in difficult economic circumstances⁸.

We may then try to re-situate the paradoxical observations about further training made in the first part. The heavy involvement of employers in 'initial' training in Germany is accompanied by long further training, which although certified and bringing promotion, relies largely on individual initiative. The quality of worker qualifications, like the importance of occupational rules, did not call for or permit the development of firm specific further training schemes. In France however, the primacy of 'general' education, the relative weakness of the worker qualifications and the existence of internal markets obliged companies to engage in a sustained investment in further training from the 1970s in order to adjust to technical and organisational change.

However, in the two countries, the economic situation, the dynamics of initial training, further training, and organisational change have contributed to the destabilization of the two models.

3. Destabilization and Dynamics of the German Model.

⁸ While in France voluntary mobility has remained blocked (Silvestre 1986).

We saw in the previous section how the German vocational training system was shaped by a 'societal' logic, directing in particular the strategies of the actors and the ways of hiring the workers in the labour market. This configuration, built historically and socially on the system of vocational training, cannot be considered totally stable. Even if the dual system has shown undoubted flexibility in recent decades, the question today concerns its ability to adapt to certain large scale changes in both the short and long term.

The first challenge is demographic. At the start of the eighties, in a difficult employment situation, the dual system succeeded in absorbing a huge number of young people, products of the baby-boom, by considerably raising the number of apprenticeships available. Today the context is radically different and the fall in population is evident, even if it has been slowed by the integration of the new Laender from the East. Major recruitment problems of apprentices may appear. Now, as underlined by Marsden (1990), the occupational system, as it exists in Germany, is fragile since it is based only on social consensus. If, in a difficult labour market situation, some firms do not play the game, for example, increasing wages to attract apprentices or, alternatively, poaching apprentices trained in other firms, then the whole system may progressively be brought into question.

This scenario is all the more likely if the social demand for long-term schooling increases. Thus, the percentage of young people staying on in secondary schools is rapidly rising, even though this proportion remains lower than in France. This change occurs to the detriment of the 'Hauptschule' which has traditionally been the main source of recruitment for the dual system⁹.

More generally, the dual system finds itself today trapped between two tendencies:

- On one hand, the strong growth in the demand for general and theoretical training expressed by a large number of the young, their families, and by the productive system, destabilizes its educational and organisational functions. In fact, initial socialisation into an occupation, one of the major attributes of the dual system, does not mean the same for 20 year old high school graduates as for classical apprentices, entering industry at 16. In sum, these developments challenge the whole logic of the system, which is founded on recruitment principally by means of the apprenticeship qualification¹⁰ and the promotion of the most competent, and which is based largely on individual investment in further training.
- On the other hand, the notable rise in skill requirements of the productive system tests the capacity of the dual system to meet these demands. From this point of view, two problems arise: on one side the increase in apprentice numbers in the eighties came partly in the less skilled sectors, thus constituting a stock of unskilled employees with little chance of finding work; on the other, the widening of the internal divisions in the school system and the rise in the school failure rate

⁹ One factor of this potential crisis in Germany that could be mentioned is the debate triggered by the statistical observation that in 1992 the number of university students exceeded that of apprentices for the first time.

¹⁰ Or of skilled white collar workers.

within the 'Hauptschule', notably for second generation immigrants, has created a flow of young people who cannot be easily integrated into the classical apprenticeship.

- The dual system faces a third challenge arising from the technical and organisational changes in the productive system, taking the form, notably, of the development of multi-skilling, functional de-compartmentalisation and the rise in skill requirements. In this context, the majority opinion is that the needs for theoretical, general and vocational training are increasing and will continue to do so (Kern and Schumann 1989). The classic form of industrial apprenticeship thus has its limits. From this point of view, the development, in German firms, of innovative vocational training practices (still a small minority) in recent years, contains the seeds that could destabilize the whole system. Therefore, the increasing use of young holders of the 'Abitur' not only has pedagogic consequences for the new expectations and behaviour of this category of apprentices, but also tends to reinforce the internal segmentation of the dual system. Because the apprentices holding the 'Abitur' seek to continue their studies in order to accede more quickly to technical and managerial posts, without starting work as skilled workers, they are in direct competition with less educated apprentices hoping to follow the traditional path of worker advancement.

This risk of breaking with the classic paths for promotion to managerial posts is also present in the introduction, by some large firms and economic sectors, of new tracks within the dual system which do not lead to manual qualifications or skilled blue collar positions, but give direct access to posts of technician or engineer (Drexel 1992). This is true of the 'Berufsakademie' (vocational colleges), which provide dual training to 'Abitur' holders leading, after 2 years to an assistant engineer diploma, and after an additional year, to the 'Berufsakademie' engineer diploma¹¹. Although this training is widely criticized in Germany, notably by trade unions and engineering schools, one can see in it an attempt to introduce direct access to higher technical posts, on similar lines to the advanced technician schools or university technology institutes present in France for the last 20 years. There would then be a break with the dominant 'societal' logic because, until now, there has been no initial vocational training in Germany for these posts.

The recent development of enterprise further training is also not without risk for the German occupational model and could constitute a fourth challenge. At the direct initiative of employers this training is explicitly related to the demands of production, and, in particular, to changes in production methods, products and organisation. The emphasis on the specific and operational character of this training is seen through their strong orientation towards management to the detriment of blue collar workers, whether skilled or not. The significant growth in this type of training¹² poses several

¹¹ An option chosen by the majority of young people engaged in this channel.

¹² More particularly noticeable in certain categories of the company; thus we showed that the further training budget of some large firms in advanced sectors had overtaken that of initial professional training, in the late 1980s.

questions about the future of the traditional further training practices, characterised by individual initiative, the acquisition of diplomas and the recognition of acquired qualifications. On these different aspects, the logic which underlies specific further training is clearly visible: individual employer initiative; strong orientation to production needs; and the principle of non-recognition in terms of job classifications and salary.

The case of the unskilled or semi-skilled workers provides a clear indication of these tensions. In fact, the requirement of a recognised qualification for access to the post of 'Facharbeiter' restricts opportunities for unqualified blue collar workers (Angelernte and Ungelernte). Certainly, a significant fraction holds an apprenticeship from other sectors than that of their current job. Their 'lack of skill' is therefore relative. However, the chance of promotion to 'Facharbeiter' is small. In Germany, as in France, unskilled workers are especially threatened by technical and organisational change. For the French observer, the neglect of this problem by the social actors in Germany is striking. And, unlike in France, the vertical mobility of these categories seems low. Further training policies have been initiated for the retraining of these employees (internally, or at the time of social plans (Bosch and Villeval 1992)), but their development is often limited by restrictions on public intervention. Moreover, some firms embarking on this path today get round the rules of the dual system and introduce firm specific plans (Gruenewald and Sauter 1992). In France this question has been the object of public debate and large scale initiatives (notably large public subsidies). Many firms have undertaken retraining policies emphasizing formal qualifications (Feutrie and Verdier 1993).

Faced with these signs of destabilization, there is uncertainty about the dual system's ability to respond and about the directions its adaptation to new demands could take. These demands concern, among other things, the rise in the level of general training, permanent adaptation to change or even to the development of intermediate technician categories (Drexel 1992). At the same time, the dual system has to maintain its central position as point of reference for workers' skills and their certification.

We are thus led to ask whether these changes represent a cumulative departure from the occupational model, sliding, on one hand, towards more scholastic types of training, and on the other, towards the internalization of occupational labour markets. A certain number of observations at the enterprise level lead us to expect changes to take the form outlined in Diagram 1 below.

Diagram 1

4. Towards an Occupational Model in France? its Construction and Contradictions.

Two distinct conclusions may be drawn from this analysis of the dynamics and evolution of the training system in Germany. The first is a real doubt about its durability and thus, even more, about the relevance of its present form as a model for the 21st century. The second concerns the use of 'occupational' models and the general conditions of their existence outside Germany today.

It is with this second question in mind that we would like to re-examine several aspects of the French model, and more widely the alternative conditions for the successful operation of what we have called the occupational model of training and employment.

The importance of initial vocational training

The first aspect, perhaps paradoxically the most problematic in France, is that of the balance between general education and vocational training. No one denies the global quality of the French system of general education nor the need, bearing in mind the evolution of work and society, to maintain, and even reinforce, the quality of initial general education. Yet the experience of the German dual system shows the

importance of vocational training in the construction of an effective 'occupational model'.

A school system with strong technical and professional education, complemented by significant use of further training, can achieve the same ends. With its vocational schools providing diplomas such as the CAP or BEP, the vocational baccalaureate, and professional training within higher education, France offers an educational structure which is not so different from the full-time vocational schools in Germany, whose role today is increasing (see also Campinos and Grando 1988). The basic difference lies in the fact that, at all levels, these channels prepare for direct access to employment. The technical and professional channels however remain socially undervalued and the trend towards a growth in schooling could be highlighted by a boost in the general baccalaureate. Two alternative scenarios are in fact possible.

In the first, the growth of initial schooling is accompanied by the maintenance of the elementary and undervalued vocational tracks such as apprenticeship today. The weakness of basic vocational training is manifest for the blue collar categories from these tracks and for high school drop-outs. The tendency to recruit externally on the basis of initial general education and to supplement this with firm specific further training would reinforce the internal labour market model.

In the second, the changing structure of the educational system, and the progressive organisation of the transition into work on the lines of alternating enterprise and school-based training, reinforce the basic vocational training of the workforce, while progressively supplementing it with certified further training. France would then move towards an occupational market logic, but built on different bases to those of the German model, relying on the certification of initial school-based training and further training. It is towards this second model that public policies of training are evolving, even though their emphasis on the 'renewal' of apprenticeship after the German model represents a misunderstanding of both the German situation and of scope for transferring it to France. It is also probably, from the firm's point of view, the method that would achieve both better basic vocational training and a lower cost. But its likelihood depends on a fundamental change in the schooling behaviour of young people and their families, for whom the attraction of vocational tracks lies in employment and a career. This presupposes that the management policies fully recognise vocational training and manage their human resources on 'occupational' lines¹³.

The organisation of entry into skilled jobs

A second aspect lies in three functions fulfilled by the dual system in Germany: its strength lies less in the quality of the training as such as in its ability to ensure jointly the acquisition of knowledge, and in-company socialisation into work and the access to first jobs. In a way the dual system presents a superior form 'of the social

¹³ From this point of view, the government's attempt to introduce last year the 'CIP', a kind of minimum wage for young workers, which would have especially concerned the holders of vocational education diplomas, clearly indicates the degree of political hesitation and the refusal to think globally about the role of vocational training.

organisation transition into the labour market' (Rose 1984) which facilitates access to employment (see the comparison between the US and Germany of the access to jobs and the unemployment of the young by Büchtemann, Schupp and Soloff 1994). The institutional mechanisms, underlying the training-employment relationship, imply a plurality of actors (in the training system and the enterprise) not easily envisaged in a school system such as existed in France in the 1970s, which was dominated by the state and by general education.

In contrast, the rapid development of forms of training alternating between school and enterprise, whether as school pupils (training periods in the enterprise and school/enterprise links) or as employees or on special contracts (eg. the success of the Training Contracts) herald a different model to that of Germany. That is to say, the development, at the margin of the educational system, of a means of socialisation into work and allocation to first jobs: two functions provided by the German dual system. Of course, the problem of allocation of cost remains. In the absence of a significant differential between young and adult wages (as in the German apprenticeship), only a public subsidy or a collective response by firms could guarantee the widespread participation and high quality of training within such a system, and enable it to go beyond measures whose initial purpose was to reduce unemployment. The obligation to spend on further training, resting initially on an agreement between the actors stabilized by legislation, and possibly supported by public subsidies, opens up a 'French' path in this field. However, two options are possible: should the 'redistribution' be done between employers or individuals (in the form of a trainee wage)? The present debate on the impact of employer subsidies does not give a clear answer: the British experience of subsidies to individuals does not seem conclusive either in forms of outcomes or with regard to equity criteria.

Certification

Owing to its system of skill certification for both general education and vocational training, the French system is able to assure, formally at least, the general standard of qualifications, which are essential to their wider recognition in the labour market. Two main obstacles remain today.

On the one hand, the extent of certification of further training (and more generally that of the validation of work experience) remains very limited. The school-based tradition, under which training in schools alone is recognized as valid, and the strength of internal markets (expressed as much by employee 'insiders' as by their employers) block the recognition of further training. There are, however, two powerful forces for change. The first lies in the dynamics of the 'new' and highly productive forms of post-taylorist work organisation which call for a revaluation of training, whether or not it is integrated into the act of work, and a change in the methods for appraisal of both individuals and groups. The second is the impact (and the cost) of the low levels of voluntary labour turnover on the management of the human resources in the firm. It is therefore not surprising to see, albeit in experimental form, the growth of different forms of certification based on public diplomas or forms of individuals' 'skill portfolios'.

On the other hand, pay and job classifications continue to be dominated by earlier patterns of organisation. But there too changes at the margin reveal tensions in the system. In certain industries, reforms of the classification systems have started to move clearly from grading 'jobs' towards the evaluation of individuals taking account of their training. Furthermore, the linking of wage systems and promotion to 'group and individual competencies' presupposes more objective measures of skill and equivalence which depend to varying degrees upon some form of certification, even though these are far from having the characteristic transferability of occupational skills as in the German model. Nevertheless, the accumulation of these small changes heralds, at least for some companies and industries, the slow construction of norms and rules of a more occupational nature.

Tripartite institutions (state, firm, and union) are essential to these two questions. For example, without increasing the involvement of these actors in the design awarding of vocational diplomas, there could be little prospect of their more systematic integration into collective agreements.

The linking of initial training with further training

In its capacity to combine initial training, further training and mobility, at least for some categories of workers, the German system has undisputedly led the field. It is generally recognised today that, taking account of the speed of technical and organisational change, there is the utmost need for workforces to be capable of permanent adaptation.

Many countries stress further training and certification. But as concerns apprenticeship, and even more so for training leading to recognised qualifications, there is no 'natural' commitment by firms in this field. By imposing a mandatory levy for the further training of employees, France gained an important advantage. On the one hand, this levy provides a powerful regulator of the tensions between firms; and on the other hand, in a country where the tradition of in-company training was dying out, it set off a process of organisational learning within firms and encouraged them to set up the necessary mechanisms. Finally, it facilitated the development of institutions providing further training (of which a large part is based on business organisations such as the Chambers of Commerce and employer organisations). Further training provides the base from which France is evolving towards a more occupational model. However, powerful obstacles remain. Unlike the components of further training in Germany which lead to upgrading, in France, the institutional linkages, whether in terms of training content or its articulation with initial training, remain weak. Moreover, a definitive system for certifying training experience has still to be resolved. Finally, a strong contradiction remains between the 'natural' tendency of firms to prefer direct recruitment from different levels of the school system (often with occupational down-grading at the moment of employment) and the potential for mobility as a result of further training. However the strengthening articulation between training and these organisational pressures could limit this tendency.

Conclusion

The strength and flexibility of the German model of 'occupational' skills can thus be attributed to the conjunction of three phenomena: the importance given by all the actors to initial vocational training and the consensus surrounding dual training, of which, let us remember, a key factor is employers' widespread acceptance of responsibility for the employment of young people; the existence, outside apprenticeship, of channels of skill certification; and regulation of the labour market along occupational lines. Apprenticeship has only recently assumed such a predominant role in training¹⁴. Now, however, changes in schooling behaviour, in the forms of work organisation and in firms' employment policies challenge certain founding principles of the model.

On the French side, the difference with the German model was very marked at the start of the 1970s. However, a close examination of the system and of current changes leads to a twofold relativization: that of the initial gap once account is taken of the factors affecting further training; and relativization in the long run, if one looks at initial schooling (growth of vocational tracks) and, although still fragile, the forces leading to a reorganisation of the labour market on more 'occupational' lines (growing role of diplomas, changing practices of certification in further training, and changes in some job classifications). To some extent, and by different routes, both countries find themselves at a turning point between their established models and the newly emerging ones. The roots of the crisis of the traditional French model go back further and it is perhaps the length of time that France has been 'between two models' that explains some of the poor performance of young people's unemployment in France.

However, placing the transformations already achieved into perspective enables us to sketch a view of a 'French model' of occupational skills which, by different paths, would converge with the strong points of the German system. There is, in fact, a double process of reorganisation: internal changes in the educational system (growth in the importance of initial vocational training) and changes affecting the foundations of the labour market (wider acceptance of expenditure on training, and of the key role of firms in providing first employment, development of new mobility practices, and integration of further training to the responsibilities into personnel management).

Bearing in mind the organisation of the national educational system, and the weakness of corporate vocational training structures, attempts to copy the German model by the French (and indeed by many other European countries) is doomed to failure from the start. Nevertheless, three sets of conditions appear in this article concerning policies for reform:

- the need to recognise the strength of socio-political influences on the architecture of the initial training system and the decisive role of public policy¹⁵, and the difficulties experienced by the state in fulfilling its permanent responsibility for

¹⁴ From both the point of view of those concerned and from that of the industrial sectors.

¹⁵ Taken here in the general sense, the state, but also to an increasing extent the regions in France, and in Germany the Länder and the unions.

training while, at the same time, seeking to involve firms and other actors more fully;

- the need to build effective bridges between initial training and the expanding sector of further training;
- and finally the need to impose rules on the labour market, notably through systems for the certification and grading of skills.

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