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European vocational training 'systems' - some thoughts on the theoretical context of their historical development

There are few long-term studies in which the development of vocational education and training (VET) is placed in a larger societal framework. Consequently, there is limited understanding as to why VET has evolved quite differently even in countries with similar economic and social development. In his reflections on a possible theoretical framework for analysing the historical development of European VET systems, Wolf-Dietrich Greinert takes a three-step approach searching for common principles of the various systems. VET is firstly embedded in national work cultures manifest in labour law. It is the work cultures which form the basis of specific VET regimes. Work cultures and VET regimes in turn come with leading ideas, which legitimise a certain didactic orientation. Based on a diachronic analysis from the Industrial Revolution onwards, three general types of VET systems are identified: the liberal market economy model in Britain, the state-regulated bureaucratic model in France and the dual-corporate model in Germany.

'The transition from school to the world of work is very different in Germany and Britain. The contrast between these two countries is probably the most marked in Europe, although the British seem to feel that all mainland countries south of Scandinavia use a watered-down version of the German system or a variation on its theme. We consider that Germany has the most pronounced version of what we would call the typical continental model.' These comments by Liverpool sociologist Ken Roberts (Roberts 2000, p. 65 et seq.) may not be purely objective, but we believe that their pointedness does demonstrate the difficulty even experts have in portraying the European vocational training landscape in a way that is easy to comprehend. If this applies to the variety of existing training systems, how much more difficult must it be to reduce the highly complex historical development of these qualification systems to a common denominator to which experts from various disciplines can relate? The European Centre for the Development of Vocational Training (Cedefop) has risen to the challenge in its project on the History of Vocational Education and Training in Europe in a Comparative Perspective (<http://history.cedefop.eu.int>). How might one go about finding solutions to the problem?

I.

Historian Hermann Heimpel claims that what makes Europe so European is that its history is the history of nations. However, this perception of nations as the building blocks

of European history acknowledges that they not only established themselves during their gradual development processes but also depended on their relationships to one another as productive partners and competitors (Zernack 1994, p. 17). Numerous factors shape relationships between nations. These include common borders and the exchange of goods. Certain international and universal historical trends are particularly decisive. The most influential factor governing the genesis of qualification procedures for the working masses is undoubtedly the Industrial Revolution or the general industrialisation of the European nations. It not only triggered far-reaching economic and technological change, but also profoundly altered the structure of society, social interaction, lifestyles, political systems, types of settlements and landscapes. In the wake of the revolution the system of 'replenishing human resources' underwent radical restructuring in all European countries.

Paradoxically, the process of industrialisation in Europe did not produce one uniform vocational training model. On the contrary, it more or less destroyed the roughly homogeneous craft/trade-based vocational training methods which had established themselves over the centuries, and replaced them with a myriad of 'modern' education systems, which at first glance seem to have very little in common. Given their diversity, however, it would be wise to be careful with the term 'education and vocational training system'. Walter Georg rightly pointed out that academic system theory can only refer to a 'system of vocational training' if the practice in question 'has become independent and



has permanently established itself as a selective communication network in the process of social differentiation of specific functional subsystems. This requires a large degree of self-referential unity and disassociation from internal social structures' (Georg 1997, p. 159).

Georg states that these kinds of independent vocational training systems, characterised by self-referential internal structures and processing mechanisms, exist purely in German-speaking areas under the name 'dual system'. In other countries, both school-based educational methods and forms of in-company initial and continuing training are founded on the logical processes of different social subsystems. In the case of school-based vocational training it is the meritocratic logic of the general education system; in the case of in-company training it is the logic of company-based production and work organisation. Georg concludes, 'The unique German approach of maintaining a self-referential vocational training system independent of schools and businesses makes any attempt to compare it with other "systems" seem like an ethnocentric misunderstanding, because usually no common means for comparison can be found' (Georg 1997, p. 159).

Georg believes that the model for explaining specific national differences in job training for the masses must be expanded to incorporate the constellations of the prevailing cultural and functional-structural relations within a society, that is culture and structure. A society's values, norms, attitudes, convictions and ideals shape education systems, work organisation and professional relationships as well as the more or less stable interaction between specific national job training and other social subsystems such as general education and the various employment system paradigms.

If we take the objections raised above into account, we can extend or refine the criteria for international comparisons of vocational training so that we can distinguish clearly between 'vocational training systems' and 'vocational training models'. The term 'system' should only apply to genuinely independent, self-referential vocational training models. Additionally, a category superordinate to vocational training methods is necessary to define operationable structural models and the interaction between

the social subsystems relevant to vocational training. We propose the term 'work culture'.

II.

The concept of 'work culture' encompasses a series of methodological problems, however. How can we classify the internal correlations between these national subcultures appropriately? Which principles of orientation and which paradigms are decisive? How can we avoid oversimplified idiosyncratic interpretations or biased paradigms?

While seeking a viable way of narrowing down this highly complex topic, we came across a study by Bercusson, Mückenberger and Supiot (1992). They attempt to establish a methodical approach to comparing legal and work cultures (Mückenberger 1998). They used a double testing procedure to examine selected fields in Britain, France and Germany. One aim was to discover what impressions of dependent work jurists from the three countries have which influence their actions and decisions ('work culture' in day-to-day legal routine). Another was to learn what impressions and experiences social competitors in the cited countries have of 'the law' in general and of 'labour law' in particular ('legal culture' in everyday working life).

The study (Bercusson et al., 1992) resulted in the presentation of three paradigmatic contexts incorporating the labour legislation of the three countries. Each paradigm lends shape and form to the prevailing legislation it describes (Mückenberger 1998, p. 37 et seq.).

□ 'In Britain the production relationship is regarded as no more than a market process in which the market participants are members of society, i.e. employees, employers and partners to collective agreement. The image of law is correspondingly negative, characterised by abstentionism, or non-intervention in the market process. "Rule of law, not of men" is the appropriate paradigm.'

□ 'In France even the production relationship is seen as a political entity. The players involved are the state and its executors, known as *inspecteurs de travail*. This emphasis on the political aspect finds expres-



sion in the recognition of the *ordre public social*. This is a regulation giving central control of working life to the state (not to the market as in Britain or to the interplay between private autonomy and the legal system as in Germany). The paradigmatic background to this Republican version is the *majesté de la loi*, the greatest achievement of the *Grande Révolution*.'

□ 'In Germany the production relationship is regarded as a kind of community which has a tradition of reciprocal responsibility and consideration of the whole. The rules of this social community are, as in Britain, seldom imposed directly by politicians. The social competitors themselves set, elaborate and correct them to some degree. However, they play a more active role than social players in Britain, following a cautious, specific case-related process of adaptation, which arises from interaction between judges and jurists. The paradigms of the "civil constitutional state", private autonomy and supervision by the law characterise this.'

The three countries also have different priorities in the area of industrial relations and labour law. In England there is a primacy of economics, in France a primacy of politics and in Germany a primacy of society. The authors of the above-mentioned study feel that these also encompass the countries' differing priorities of 'security' and 'freedom'. Social security was developed earlier and more completely in Germany than in France and Britain. However, it is accompanied by a loss of freedom. In France the right of political articulation, action and organisation, even militancy, have priority over social security. In Britain freedom also takes precedence over security, not in the same way as in France, but in the form of market activity and collective bargaining. According to the study, in France freedom is the domain of politics. Freedom is achieved within (and through) the state. In Britain the issue of freedom from the state dominates (Mückenberger 1998, p. 38).

This model illustrates that 'work culture', like culture in general, actually conveys a 'vague idea in a consistent context' (Georg 1997, p. 161). The methods for approaching the specific national differences have certainly not been exhausted in the above discussion. However, we can already deduce something that culturalistic-oriented investigations have

confirmed as a general tendency: the incredible persistence of culturally inherent values and traditions and national mentalities (e.g. Hofstede 1993). These factors have made the transformation of social systems notoriously difficult.

Applied to our task of identifying European vocational training models, this would mean that although they represent a specific response to changing technical socio-economic and political problems, their structural change processes are governed by a considerable and dogged tendency to cling to tradition. Tradition and modernity are not adversaries. They are actually identical. We can talk of a specific tradition-bound modernity.

III.

Of course, we could consider individual countries in isolation when describing the historical development of vocational training in Europe, and restrict ourselves to examining and compiling as complete a summary of the relevant sources and their inherent interpretations as possible, thus presenting an account of historical events. However, the academic and practical use of such a small-scale venture would be limited. As already mentioned, this study is concerned with expounding specifically European aspects. This requires us to analyse dialogue and cooperation which may have occurred between European nations, and of which we knew little or nothing until now, on reshaping their vocational training under the influence or pressures of the changes sparked by industrialisation. What specific principles, organisational forms and learning concepts from this dialogue have proved to be trend-setting and have left their mark in the form of national institutions?

To date historical vocational training research has been able to identify three 'classical', i.e. exemplary, European training models, which formed during the first phase of the Industrial Revolution in response to the erosion of the craft/trade-based vocational training model (Greinert 1999). They are: the liberal market economy model in Britain, the state-regulated bureaucratic model in France and the dual-corporate model in Germany.

The liberal model, first realised in Britain, forms a market relationship between the



functional subsystems of labour, capital and education emerging from the social evolution process influenced by industrial capitalism. The main protagonists of labour and capital, who should be freed from traditional restraints as far as possible, also maintain free market relations with the new education subsystem. Structural disadvantages prevent workers from using the education subsystem to market themselves as a 'qualified' production factor. Thus they must sell themselves as mere human resources and accept the social consequences, which can be disastrous (e.g. child labour).

The corresponding market model of professional qualifications has the following characteristics:

(1) The quantitative relationship between training supply and training demand is regulated by the market. Those supplying various skills and those demanding them can meet on a voluntary basis in a - in principal - 'free' market (i.e. training market not primarily controlled by the state).

(2) The type of professional qualifications (qualitative aspect) ultimately depends on their projected application on the labour market and in the actual businesses and authorities. The transferability of professional qualifications between companies varies according to the market, but is usually fairly limited.

(3) Training practices are not particularly standardised. Schooling, in-company training, alternating school and in-company training and organisationally and technically advanced training methods can all be marketed (e.g. as distance learning courses or via e-learning). However, few widely accepted examinations and certificates exist.

(4) The cost of training is borne individually, usually by the person requiring training. However, businesses also often pay fees if they are supplying the training themselves. In this case training courses - usually only partial occupational qualifications - are subject to the principle of cost minimisation.

(5) Countries with market models of vocational training distinguish sharply between general vocational education and specific vocational training, both as definitions and within institutions. Vocational education is always conducted in state schools, vocational

training stems from voluntary agreements between market players.

The bureaucratic, state-regulated model, first implemented rigorously in France, uses the new education subsystem to create a political, power-based relationship between capital and labour. For general socio-political reasons, structurally disadvantaged workers are 'qualified' with the help of a state-regulated and state-financed education sector (which also includes vocational training!). Workers can then confront the capital subsystem, again within a state-regulated framework. This model contains the risk that vocational training institutions may be too strongly influenced by the logical structures of the general educational system and degenerate to a subordinate branch of it.

The corresponding school-based model of vocational training has the following characteristics:

(1) The quantitative relations between training demand and concrete vocational training are determined by state bodies or bureaucrats. Since this kind of demand planning cannot go into great detail, it functions most effectively when it is based on a limited contingent of basic professions.

(2) The types of occupational qualifications (qualitative aspect) are less dependent on their immediate application in companies. Abstraction, verbalisation and theorisation usually form the central principles of vocational schools' curricula. Simple occupations characterised by practical activities cannot implement these principles in a desirable fashion.

(3) School training models are usually characterised by a clear differentiation of individual training course types. Admission to the various schools, which are starkly scaled according to qualification demand and the leaving certificate obtainable, normally depends on the various leaving certificates from general education schools or on special entrance examinations.

(4) Vocational training in schools is financed by the state budget. Their inherent limitations do not, as a rule, allow extension of vocational schools to accommodate all members of a school year. Seen also from this perspective, school vocational training models seem mainly to embody an elitist system



which primarily focuses on imparting higher-level professional qualifications.

(5) School vocational training models are almost necessarily subject to the 'escalator effect', i.e. their courses have a tendency to keep moving up the qualifications ladder, at least in the medium term. Consequently, new training courses or institutions must constantly be devised to replace the lower qualification levels. Thus, vocational training for all is in an almost permanent state of crisis.

The dual-corporatistic model, which only exists in German-speaking areas, uses a new independent 'vocational training' subsystem as a means of communication between labour, capital and state. The intervention of legally revived, traditional 'intermediary' institutions (the state-regulated chamber system), which administer and manage the qualification of workers on behalf of the state, at least allows some limitation of state and market deficiencies in one important public field of conflict. However, the clear organisational and legal detachment of the vocational training system particularly from the 'higher-level education' system (grammar schools, universities) does create considerable problems.

The corresponding dual-system model of vocational training has the following characteristics:

(1) Dual vocational training systems are largely isolated from the general education sector. They have their own organisational structure and training regulations as they are mainly run privately. Their twofold market and bureaucratic regulation pattern requires complicated coordination.

(2) Companies are the primary learning location in this 'cooperative' system. Young people sign a private training contract with the company as employees with special trainee status. As they also attend vocational school they are subject to the rules of the general education system.

(3) Employers, trade unions and state bodies jointly decide on career profiles and training ordinances in a regulated process. They are legitimised through an act of parliament.

(4) Individual companies usually pay for the training. The costs can be declared as operating expenses for tax purposes. The company provides its trainees with a 'remuner-

ation' which is fixed by collective bargaining. Vocational schools are financed by the public sector.

(5) Dual vocational training systems have a traditional, craft-based background. Three traditional principles have endured to this day. The principle of vocation (Berufsprinzip), the principle of self-administration, which applies to the main, in-company part at least and the principle of learning while working.

We believe that these three vocational training models constitute prototypes, which the European nations' search for new ways of approaching vocational training for all in the wake of industrialisation has generated (Greiner 1999). We feel that this process does not contain any further models which Europe could employ as a point of reference and maintain that all other vocational training models which arose in the various European countries throughout the 19th and 20th centuries are variations and/or combinations of these three prototypes or basic models.

IV.

The European dimension of conceptual reflection in the formation of specific basic types of vocational training in the industrial age becomes clear if one attempts to question the findings outlined in Sections II. and III. with regard to the ideational context. One is tempted to adopt the characteristic Western dialectic of thinking in threes, since our search process can effortlessly identify three ideas which specifically interact. They are tradition (the vocational principle), rationalism (the academic principle) and liberalism (the market principle).

Thus three central legitimisation principles of European thought form the ideational context to the three vocational training models. The principles do not only apply to the models' regulatory level, but also structure their operational level, i.e. the actual vocational training activities of the specific learning types. This approach has much in common with the three ideal 'qualification styles' devised by Thomas Deißinger (Deißinger 1998). However, there are several pertinent differences.

We define our typology of legitimisation models for European vocational training as follows:



(1) Vocational orientation: According to the modern, post-Enlightenment view, this legitimisation model is ideally based on tradition, i.e. on the one hand on real vocational practices implemented in Europe since the Middle Ages, on the other hand on occupations as a tried and tested way of categorising organisational forms of human resources. From this perspective, occupations are understood as specific combinations of the elements work, qualifications and earnings. The activities they involve are determined according to traditions and social arrangements.

The core elements in the individual occupations are grouped into characteristic exchange models. On the one hand, as a standardised social exchange model a profession forms the central link between social relationships, which are determined according to their 'role'. On the other hand, professions are the primary source of self-identity, i.e. of the image individuals have of themselves and through which they present themselves to their environment. This has not changed fundamentally in Europe.

The 'profession' category allows a training model to develop the capacity to transfer economic, social and pedagogical issues and problems to a system-based logical framework and to process them productively. This capability, which modern system theory terms 'self-reference', can engender an independent training system.

(2) Academic orientation: This legitimisation model is based on the conviction that academic rationality should apply when setting the organisational didactic principle for vocational qualifications. Practical access to the material world should no longer be gained by retrospectively applying scientific findings to the tradition-bound experiences of individual companies and professions, but by subjugating all practices to scientific monitoring and experiments.

The concept of attaining vocational qualifications via an academic approach is an immediate product of the Enlightenment and thus embodies the spirit of modernity, that is, that science, particularly mathematics and the exact natural sciences, will rule the world, especially in the field of technology. 1795 saw the foundation of the Ecole Polytechnique in Paris as the central initial training institution for engineers. This was the start-

ing point for the standardising didactic principle of vocational training through specialised academic training as a framework for all levels of vocational qualification.

Strictly knowledge-based vocational training models are most effective in so-called 'higher-level', theory-oriented (i.e. academic) professions. However, achieving the necessary integration of intellectual qualifications and the acquisition of the relevant practical skills remains a problem.

(3) Market orientation: This legitimisation model is based on the teachings and principles of economic liberalism and classical national economics. The central postulate is that people are capable of organising their social interaction efficiently, particularly their working life, on the basis of their own reason and insights.

Along with the principles of a consistent decentralised economic order, private property, free-market competition, free choice of profession and job, the merit principle, etc., economic liberalism rejects any state intervention in the economy, which is in the hands of autonomous individuals, and demands that state policy be limited to satisfying a few basic general requirements. This includes the avoidance of compulsion (e.g. imposition of legally regulated 'duties'). Strict consideration of the individual's responsibility for him/herself should not only be interpreted as an element of freedom. It also entirely fulfils liberals' expectations of the function of a social adaptation mechanism.

Market-oriented qualification systems impart only marketable qualifications, i.e. company-specific practical knowledge, skills and attitudes needed for concrete positions. Young people are not required to gain any particular qualification after completing compulsory schooling. Their integration into the social and labour system is primarily dependent on market pressures.

The three legitimisation models of modern vocational training approaches in Europe outlined above are based on central ideas which can be seen as the new principles of order for human interaction and modern interpretations of the world since the Enlightenment. However, in cases of tradition orientation, significant doubts may surface. We feel they are unfounded. The most famous Bildungsroman of the modern age,



Jean-Jaques Rousseau's *Emile*, deals with the problem of religious orientation. In view of the Enlightenment's philosophical relativity of all religions, Rousseau saw no rational reason for one particular choice. All religions of revelation presented equally plausible options. However, Rousseau surprisingly recommends his pupils to stick to the religion of their ancestors and justifies this by referring to tradition. Viewed critically, this position could be seen as overtaking the Enlightenment. The vocational training expert Herwig Blankertz made the following comment: 'Tradition is the arsenal of values which we acquire not because our sense tells us to, but because we believe in it thanks to the heritage that previous generations have passed down to us (...). Rousseau's pedagogical approach did not overtax the mind but inserted the power of tradition into the rational system of natural upbringing as the last word on legitimising human orientation to norms' (Blankertz 1982, p. 78 et seq.).

We believe that vocational, academic and market orientation should be considered as didactic orientation examples in all European vocational training models, even in those in which a specific structural or regulatory model seems to dominate. In the German system, the principles of market orientation (e.g. in vocational continuing training) and academic orientation (in practically all vocational schools) join the vocational principle as important factors at the operational level. The French training model incorporates occupational and market orientation alongside academic orientation. Even the strongly market-oriented British training model is also structured according to occupations and according to the specialist vocational subject system in the country's further education institutions.

Anyone wishing to compare the profile of the European method with an alternative professional training model need look no further than Japan, particularly Japanese big industry. This is something completely different. One of the striking contrasts is the lack of any kind of vocational orientation. In contrast to Europe, Japan has no 'work culture'. Neither the employment system nor the education system is structured according to specialist vocational models. 'In Japan the focus of the qualification process is not on specialist content, as is the case over here, but more on the social context of the activity. Mastery of one's 'subject' does not

bring social acceptance. Instead the Japanese value readiness and the ability to productively fit into the concrete working situation, i.e. in the employing company' (Deutschmann 1989, p. 240). In Japan corporate identity has replaced 'work culture'. 'The company's own organisational and qualification structures replace external standardisation of work and training, professional identity is replaced by unconditional loyalty to the firm' (Georg 1993, p. 195).

V.

To summarise, the observations we have presented so far have produced three structural models of vocational training in Europe. Viewed from three different perspectives, each demonstrates characteristics which can be combined into a higher typological unit.

(1) From a work culture perspective, in Type A the economy takes priority. The qualification model is regulated primarily by market orientation. At the operational level, the actual learning level, the functional needs of the company or the actual position are the leading didactic principle.

(2) From a work culture perspective, in Type B politics take priority. The qualification model is primarily regulated by bureaucratic control (on a legal basis). At the operational (learning) level, the academic principle is the main didactic tenet.

(3) From a work culture perspective, in Type C society takes priority. The qualification model is primarily regulated by dual control, i.e. a combination of market and bureaucracy. At the operational (learning) level, the vocational principle is the determining didactic orientation.

These three types of vocational orientation for the working masses have been the building blocks for vocational training models in various European countries since the Industrial Revolution. As we stated, they have a great tenacity. A universal decisive move away from this tradition cannot be perceived in Europe. The modernisation and reform of vocational training models in Britain and France in the last 20 years of the 20th century provide evidence of this. In both cases it is clear that the central reform initiatives (National Vocational Qualifications and al-



ternance training respectively) adhered strictly to the traditional patterns of qualification models developed in the 19th century (Greinert 1999). Politicians in both Britain and France tried to push through alternatives, but ultimately they had 'no choice'. The European structures and control models established in the first Industrial Revolution are displaying remarkable endurance. Despite changing technical and socio-economic influences, even despite wide-ranging explicit political attempts to replace the traditional model with allegedly more attractive and more effective alternatives, the typical procedures and organisational structures of the classic European models presented here maintain the upper hand in the countries in which they originated.

This experience is likely to be repeated in the case of the dual system in German-speak-

ing areas, although to date no generally accepted conclusive concept for transforming this qualification system has emerged. This is not because no one has put forward any convincing ideas and proposals on how to take this necessary step. The German dilemma is simply a result of the fact that, since the Vocational Training Act of 1969, politicians have refused to assume their defined role in the 'cooperative' division-of-labour vocational training system of adapting vocational qualifications to constantly evolving technical and socio-economic circumstances. The last two German governments provide excellent examples of politicians' unwillingness to act. Several years ago a renowned politician remarked that in general Germany did not have a problem with devising concepts, but with implementing them. This also seems to hold true for vocational training.

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