

An actor-centered institutionalist approach to flexicurity: the example of vocational education and training

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Abstract

This paper applies the actor-centered institutionalist theoretical framework to research into flexicurity strategies. The first part summarizes the actor-centered institutionalist framework, as developed by Renate Mayntz, Frits Scharpf and others. The second part illustrates how this framework can be used to sharpen both research questions and their hypothetical answers on the flexicurity research agenda. For illustrative purposes, this part focuses on the specific theme of the institutionalisation of markets for intermediate skills (cf. Van Lieshout, 2008).

1. Introduction: education and training institutions as a flexicurity arrangement

A high skill level of the workforce is considered to be an important condition for continued socio-economic growth. Not only does it stimulate welfare at the macro level, but good training and a decent set of skills contributes to individual employment security as well. In addition, training increases flexibility, in different ways. One of the mechanism through which better training can increase worker's employment security is by increasing their chances at internal and external job mobility – and thus, by enhancing their potential external flexibility. In addition, a better skilled workforce is considered to greatly benefit firms by increasing their internal flexibility in the deployment of that workforce, allowing them to react swiftly and decisively to changing external market circumstances. Because training can, at least theoretically, simultaneously strengthen the employment security of citizens and the (internal) flexibility of firms, (education and) training institutions can be seen as a flexicurity arrangement (van Lieshout & van Liempt, 1999; 2001; van Lieshout & Wilthagen, 2002). At least to some extent, European policy have increasingly included skills acquisition as a modern, activating form of social security that would be preferable to more traditional forms of social security.

There is, however, a potential downside: flexibility and training may conflict (van Lieshout & van Liempt, 1999; van Velzen, 2004). When a firm invests in training, it recoups training costs by increased worker productivity down the road. If a worker leaves the firm upon training completion, the firm that has sponsored the training is reaped of its benefits. To the extent that external labour market flexibility increases, firms will become more reluctant to invest in (broader) skills training, because of the increased risk at a premature departure of trained workers. In particular human capital theory (Becker, 1993) has explored this theme theoretically. Firms can opt to train themselves (and run the risk of losing their investments through a premature departure of trained workers) – or they might choose to forego training and instead aim recruit skilled workers in the external labour market (and save training investments along the way). This way, firm's training investment decisions have all the characteristics of a classic prisoner's dilemma (Finegold, 1991): while all firms benefit from an ample supply of adequately trained

workers, it may appear rational for each of them individually to not (substantially) invest in training. If most firms opt to go for the 'safe' road of external recruitment ('hire') over ample training investments ('train'), they may very well find themselves facing skilled worker shortages because the labour market in which they operate will spin into a low-skills equilibrium. While training is not a collective good, markets for in particular costly intermediate and higher skills face the threat of market failure (Ryan, 1991). This explains why market interventions – by the state and/or associations of firms and workers – is generally accepted, and why academics as well as policy makers are interested in training institutions and forms of regulation that can help prevent such market failure.

Rather than looking forward to draft modern flexicurity arrangements, this particular paper looks back to increase our understanding of how skill acquisition can be institutionalized, and differently institutionalised markets shape individual and firm's skill investment policies. In section 2, this chapter will introduce the paradigm of actor-centered institutionalism as it has been developed by Frits Scharpf and Renate Mayntz as a theoretical framework to shape studies into this policy field. In section 3, we apply the paradigm to the empirical analysis of markers for intermediate skills in Germany, the U.S. and the Netherlands. We will use markets for intermediate skills as an exemplary topic of labour market regulation to show how different institutional environments can shape actor's strategies – and how actor's strategies can shape institutional environments. Section 4 draws some conclusions that should provide a common ground for modern flexicurity strategies.

2. Actor-centered institutionalism

2.1 Introduction

Mayntz & Scharpf (1995) propose to combine methodological individualism with institutionalism in a framework they label 'actor-centered institutionalism' (also cf. Scharpf, 1997). Actor-centered institutionalism offers '...a tailor-made approach for research on the problem of governance and self-organization on the level of entire social fields' (Mayntz & Scharpf, 1995: 39), in particular in fields related to state intervention. The basic assumption underlying actor-centered institutionalism is that an analysis of structures without reference to actors is as handicapped as an analysis of actor's behavior without reference to structures (Mayntz & Scharpf, 1995: 46). Instead of assuming a dominant role for either institutions or actors, the sharp distinction between institutions and observable actions in actor-centered institutionalism tries to integrate both action-theoretic or rational choice and institutionalist or structuralist perspectives (Mayntz & Scharpf, 1995: 46; Scharpf, 1997: 36). Actor-centered institutionalism thus preserves the principle of methodological individualism while connecting it with institutionalism (Scharpf, 1997: 1):

“...as it proceeds from the assumption that social phenomena are to be explained as the outcome of interactions among intentional actors (...) but that these interactions are structured, and the outcomes shaped, by the characteristics of the institutional settings within which they occur.”

Actor-centered institutionalism offers a framework of how to proceed with empirical studies, rather than a fully specified theory (Scharpf, 1997: 37). It provides us with a descriptive language, and an ordering system that describes the location of, and the potential relationships among, more limited 'causal mechanisms' that we draw upon for the theoretically disciplined reconstruction of our nearly unique cases

(Scharpf, 1997: 30; 37). The remainder of this section further elaborates the main characteristics of the 'descriptive language', 'ordering system' and 'causal mechanisms' provided by actor-centered institutionalism: institutions, actors and actor constellations. In explaining social phenomena, actor-centered institutionalism sees observable behavior by (individual or composite) actors as a 'proximate' cause, while the institutional context functions as a 'remote' cause (Mayntz & Scharpf; 1995: 46-47).

2.2 *Actor-centered institutionalism: overview and explanatory approach*

The first step to explanation is to identify the set of *interactions* that are to be explained, as this constitutes the unit of analysis. This then allows us to identify the *actors* that are actually involved, and whose choices will ultimately determine the outcome (Scharpf, 1997: 43). Actors are assumed to be capable of making purposeful choices among alternative courses of action (Scharpf, 1997: 7). They are assumed rational in the sense that they will attempt to maximize their own self-interest (in terms of payoffs); but they are not assumed to be perfectly rational. Actors have specific *capabilities* and *action orientations* (Scharpf, 1997: 43). In particular an analysis of sectoral governance and self-organization in state-related fields will often have to focus on the interactions between *composite actors*, such as political parties, labour unions, and firms, rather than on individuals acting on their own account (Scharpf, 1997: 39). The notion of a composite actor implies a capacity for intentional action at a level above the individuals (Scharpf, 1995: 52). Since, however, only individuals are capable of having intentions, the capacity to act at the higher level (e.g. a union) must be produced by internal interactions between individuals (its members and staff). The result is the *multi-level* character of any conceptualization of actors above the level of individuals of at least two levels. On one level, a composite actor (e.g. a union) has certain resources that it employs in strategic action *vis-à-vis* other (composite) actors (e.g. an employers' association); on another, that same composite actor is an institutional structure within which individuals (union members and staff) interact to produce the actions ascribed to the composite actor.

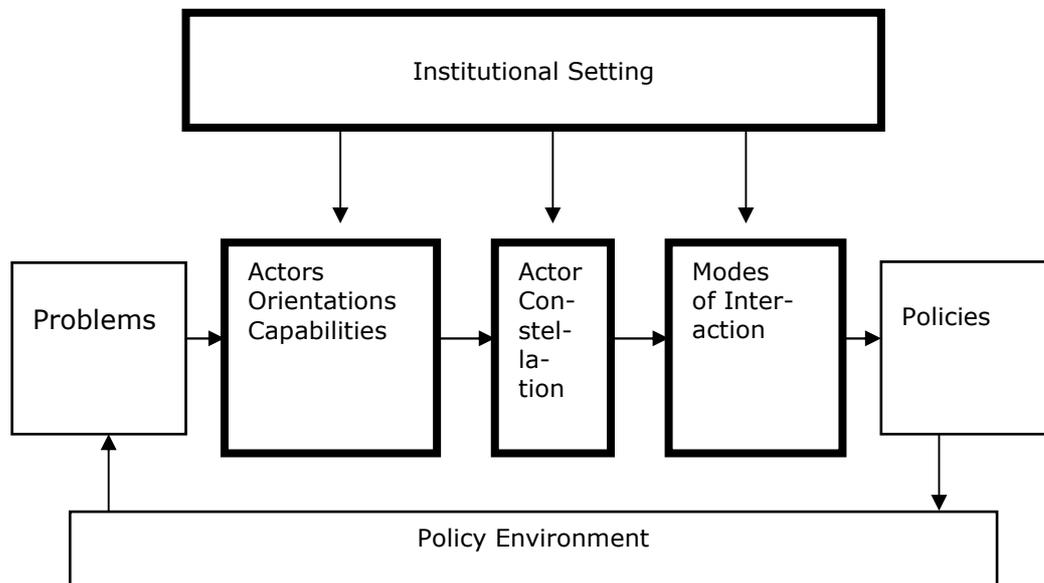
The courses of action available to an (individual or composite) actor are labeled *strategies*. More often than not, strategies available to different actors in the same field are interdependent, in the sense that the *outcome* of a particular strategy chosen by an actor will simultaneously depend upon the choices of other actors (Scharpf, 1997: 7), and the other way around. Outcomes in turn reflect *payoffs* for actors. Payoffs represent the valuation of a given set of possible outcomes by the preferences of the players involved (Scharpf, 1997: 7).

When strategies of different actors are interdependent, what is important is the *actor constellation* among the plurality of actors involved. The constellation describes the actors involved, their strategy options, the outcomes associated with strategy combinations, and the preferences of the actors over these outcomes (Scharpf, 1997: 44-45). The actor constellation describes a static picture, rather than actual interactions producing outcomes. These actual interactions can differ widely in character: any given actor constellation can correspond with a variety of *modes of interaction* (Scharpf, 1997: 45-47). It matters, for example, whether the same group of people will interact within a system of majority voting, or under hierarchical direction (a boss decides) to achieve a particular outcome.

The proximate cause (observable behavior by actors) is influenced by the remote cause (institutions) in many ways. The institutional context constitutes (in particular composite) actors and actor constellations, structures actors' disposal of resources, influences their orientations, and shapes important aspects of situations that confront individual actors (Mayntz & Scharpf, 1995: 49). But it does

not constitute all types of action and action-relevant factors, and where it does, it does not completely determine action. Real situations will simultaneously contain numerous non-institutional incentives.

Figure 1: The domain of interaction-oriented policy research



Source: Scharpf (1997), p. 44

Scharpf (1997: 5-10) emphasizes the importance of thinking game-theoretically when connecting proximate and remote causes in explanations. His emphasis is on *thinking* game-theoretically: "It is sufficient that the basic notions of interdependent *strategic action* and of *equilibrium outcomes* be self-consciously and systematically introduced into our explanatory hypotheses." (Scharpf, 1997: 6-7). Strategic action implies that actors are aware of their interdependence and that in arriving at their own choices each will try to anticipate the choices of the others, knowing that they in turn will do the same (Scharpf, 1997: 10). Equilibrium outcomes are outcomes in which no player can improve his own payoff by *unilaterally* changing to another strategy. Together, these concepts provide the basis for counterfactual 'thought experiments' that systematically explore the outcomes that would have been obtained had the parties chosen other courses of action. If it can be shown that the actual outcome was indeed produced by strategy choices that, for all parties involved, were the best that they could do under the circumstances, one has a persuasive explanation (Scharpf, 1997: 10).

2.3 Institutions in actor-centered institutionalism

The framework of actor-centered institutionalism emphasizes the influence of institutions on the perceptions, preferences, and capabilities of individual and composite actors and on their modes of interaction (Scharpf, 1997: 38). Actor-centered institutionalism restricts "the concept of institution to systems of rules that structure the courses of actions that a set of actors may choose." (Scharpf, 1997: 38). This definition does not only include formal legal rules that are sanctioned by the court system, but also social norms that actors will generally respect and whose violation will be sanctioned by loss of reputation, social disapproval or withdrawal of cooperation and rewards (Scharpf, 1997: 38). Mayntz &

Scharpf (1995: 45) point out two important consequences of this approach to institutions. First, this way institutions are not simply treated as the given result of a previous evolutionary development, but as things that can be intentionally created and changed through the actions of specific actors. Second, restricting the definition of institutions to specific regulatory aspects is an important step in realizing the premise that the institutional context enables and restricts, but not fully determines behavior. Mayntz & Scharpf (1995: 45-46) correctly point out that when one would, for instance, also include daily routines into the definition of institutions, there would be little room left for individual actors to maneuver outside of the scope of institutions. The term 'institutional setting' or 'context' serves as a shorthand term to describe the most important influences on those factors that in fact drive the explanations: actors with their orientations and capabilities, actor constellations and modes of interaction (Scharpf, 1997: 38-39).

Institutions have explanatory value because they reduce empirical variance. In the extreme case, sanctioned rules will effectively reduce the range of potential behavior by specifying required, prohibited, or permitted actions (cf. Ostrom et al., 1994: 38). More often, however, positive and negative incentives attached to institutionalized rules will merely increase or decrease the payoffs associated with the use of particular strategies, and hence their probability of being chosen by self-interested actors (Scharpf, 1997: 39).

But institutions do more than constrain feasible strategies: they also constitute composite actors, and shape the valuation and perception of (possible) outcomes. As to the first: composite actors are institutionally constituted because they were created according to pre-existing rules (e.g. schools according to education laws) and they depend on rules for their continuing existence and operation (e.g. the state education budget). Composite actors only exist to the extent that the individuals within them are able to coordinate their choices within a common frame of reference that is constituted by institutional rules. Such rules define the membership of composite actors, material and legal action resources they can draw upon, the purposes they are to serve and the values they are to consider; they are of particular interest within actor-centered institutionalism (Mayntz & Scharpf, 1995: 48; Scharpf, 1997: 39). Likewise, some institutions create arenas where various actors could interact, as well as occasions or reasons to do so (Mayntz & Scharpf, 1995: 48). Where institutions ascribe tasks to actors, and put actors into a particular constellation with one another, one can also speak of social differentiation (Mayntz, 1988). Second, as rules also (co-)define interests and values, they will (co-)determine how outcomes will be evaluated by the actors involved. Thus, they (co-)determine the preferences of these actors. Moreover, institutionalized responsibilities also influence actors' perceptions. Actors with different responsibilities will often focus attention on different phenomena, and may have different views on the causes of the same phenomena. Once we know the institutional setting of interaction, we know a good deal about the actors involved, about their options, and about their perceptions and preferences (Scharpf, 1997: 39-40).

Again, it is important to note that actor-centered institutionalism does not have a determinist view on institutions: institutions influence repertoires of more or less acceptable courses of action, and as such leave considerable scope for strategic and tactical choices of actors (Scharpf, 1997: 42). But if we have to consider all institutional as well as non-institutional factors influencing all actors involved, explanation and empirical research is in danger of becoming overly complex, and evolving into specific historical reconstructions. Actor-centered institutionalism therefore uses an institutional variant of the rule of *diminishing abstraction* (Lindenberg, 1991). It makes pragmatic sense to reduce levels of abstraction only gradually in the search for theoretical explanations. Therefore, we should begin with

institutional explanations; and only when there are clear indications that institutionally shaped perceptions and preferences will not provide satisfactory explanations, should we look for empirical information on more idiosyncratic, actor-centered factors – such as a change in CEO (Mayntz & Scharpf, 1995: 66; Scharpf, 1997: 42).

Institutions are created by human action (either through evolutionary processes of mutual adaptation or purposive design) so there is no reason to assume convergence towards one best solution – if that should exist at all. Institutional development is *path-dependent* in the sense that where you end up is strongly influenced by where you started from; and where you end up is not necessarily an equilibrium, let alone a Pareto-efficient one. Once institutions have been installed, and actors have come to rely on their coordinating function, institutional change will be costly. This makes institutions hard to reform or abolish even if the circumstances that brought them about and originally justified them, no longer exist (Scharpf, 1997: 41, also cf. Simitis, 1994)¹. This of course, is of vital importance when analyzing flexicurity strategies. On the one hand, flexicurity strategies entail the conscious creation or change of labour market institutions. And second, since the currently existing institutions have been the result of conscious previous strategies from the state and social partners, they may limit change in certain directions in at least two ways. Similar goals of institutional change may be much easier to achieve from one existing situation than from another. In addition, if important composite actors (such as social partners and the state) have long rallied their members or their citizens along certain principles and for certain institutions, it will be harder for them to suddenly shift gears and rally them along other principles or against current institutions.

2.4 *Actors in actor-centered institutionalism*

As composite actors will typically figure prominently in actor-centered institutionalist analysis, it is important to discuss the conditions under which it is appropriate to apply actor-centered concepts to units that include several or many human beings (Scharpf, 1997: 51).

To begin with, we will discuss some cases where one might be tempted to apply the concept of a composite actor where one should avoid to do so. It is common practice to use *aggregate* categories for describing parallel actions of populations of individuals who share certain salient characteristics, such as 'the farm vote' or 'capital flight'. But there, the explanation in the end rests exclusively on the individual level, and the more simple aggregate description is justified exclusively by the assumed empirical similarity among individual choices. The same holds for more complicated micro-macro links than mere aggregation, such as the situation when similarity between individual actors' choices does not stem from similar characteristics or preferences, but where certain acts by some will increase or decrease the likelihood that others will act in the same way (for instance, bandwagon effects in election campaigns). In both cases, the aggregate effect is a result of individual choices from individual actors acting from their individual action perspectives and with regard to their individual expected payoffs; but it is not in itself an object of anyone's purposeful choice. These aggregates are thus not capable of strategic action; but one could model such aggregates as responding in a predictable fashion to the moves of (individual or composite) actors that are capable of strategic action (Scharpf, 1997: 53-54).

To qualify as a composite actor, an actor must have the capacity for strategic action – which is to say that on the basis of accurate perception and adequate information-processing capacity, it is able to respond to the risks and opportunities inherent in a given actor constellation by selecting those

strategies that will maximize its interests. In the *cognitive* dimensions, composite actors therefore depend on interpersonal information processing and communication. Strategic capacity increases as the worldviews and causal theories of relevant subgroups converge on common interpretations of a given situation and of the options and constraints inherent in it. In the *evaluative* dimension, the capacity for strategic action presupposes the integration of preferences. In general terms, this implies a capacity to accept some losses in order to obtain larger overall gains (or to avoid larger overall losses). The capacity for strategic action thus depends, on the one hand, on the preexisting convergence or divergence of relevant perceptions and preferences among the members of the composite actor, and, on the other hand, on the capacity for conflict resolution within the collective unit. Empirically, we are likely to find composite actors that are by and large capable of strategic action in those areas in which they are routinely engaged. Differences in strategic capacity will primarily show up when existing collective actors are confronted with novel problem situations that cannot be handled successfully within the existing repertoire of strategies (Scharpf, 1997: 58-59).

The term composite actor is thus reserved to constellations in which the 'intent' of intentional action refers to the joint effect of coordinated action expected by the participating individuals; they intend to create a joint product or to achieve a common purpose (Scharpf, 1997: 54). Composite actors build the context for action for these individuals, in the same way as the institutional environment builds the context for the organization's actions. This implies that in principle the same empirical phenomenon must be analyzed from two perspectives: from the outside as a composite actor and from the inside as an institutional structure within which individual actors interact to produce the actions ascribed to the composite actor (cf. section 2.2.3). If it were necessary to extend every analysis to the latter micro level each and every time, the concept of composite actors would be pragmatically useless (Scharpf, 1997: 52). This is where, as we saw in the previous section, Lindenberg's (1991) rule of 'diminishing abstraction' is taken to imply that, first, one should not seek to explain things by referring to actors' peculiarities what one can explain through institutions, and second, even when pursuing an actor-centered explanation, one should first work with simple assumptions and only test these empirically, when one cannot explain behavior otherwise (cf. Mayntz & Scharpf, 1995: 66). In particular composite actors are operating within institutional settings in which they are much less free in their actions than autonomous individuals might be; as a consequence, these actors are likely to find themselves in relatively stable 'actor constellations' that can be analyzed with the help of game theoretic concepts (Scharpf, 1997: 12).

Composite actors are further divided into 'collective' and 'corporate' actors. Collective actors are highly dependent on and guided by the preferences of their members, while corporate actors have a high degree of independence from the ultimate beneficiaries of their actions, and their activities are carried out by staff members whose own private preferences are supposed to be neutral (cf. Coleman, 1974). Collective actors may be further differentiated by two dimensions. The first is the degree to which critical action resources are either controlled individually by the members or have been collectivized and are controlled at the level of the collective actor. The second dimension refers to the action orientation. Unlike individual or corporate actors, collective actors are not autonomous in their choices but dependent on the preferences of their members. But these members' preferences may either be related to the separate goals of these members or refer to purposes that can only be defined at the level of the collective (Scharpf, 1997: 54-56).

Corporate actors are typically 'top-down' organizations under the control of an owner or hierarchical leadership representing the owners or beneficiaries. Even if they have 'members' in the formal sense, these are not actively involved in defining the corporate actors' course of action but rather have at the most the collective power to select and replace the leaders. Strategy choices are disengaged from the preferences of membership, and corporate actors may thus achieve identities, purposes and capabilities that are autonomous from the interests and preferences of the populations they affect and are supposed to serve (Scharpf, 1997: 56-57).

It is important to note that there are no sharp dividing lines separating the analytically defined categories of actors (cf. Scharpf, 1997: 58). But the distinctions are useful in alerting us to the fact that the degree and method of integration of composite actors varies widely, and that it is necessary to identify the conditions that may justify the simplified assumption that a plurality of individuals could, for certain purposes, be treated as composite actors. Therefore, the previous typology of actors is not comprehensive, in the sense that there are solutions that separately institutionalize structures of collective and corporate actors and combine these to serve complementary purposes. The prime example is the democratic *state*, which uses the associative structure of general elections, party competition, and parliamentary responsibility of ministers to control the power of a bureaucratic machinery, which is largely immunized against immediate interventions from political processes in its day-to-day operations (Scharpf, 1997: 57). At that level, state departments largely operate as a top-down organization – and hence resemble a corporate actor, with the Minister or Secretary heading the department as its 'owner'². At the same time, however, this Minister is restricted by parliamentary control.

2.5 *Actors' capabilities and action orientations*

The view on actors and their orientations within actor-centered institutionalism differs from rational choice theories such as neoclassical economics (Scharpf, 1997: 19-22). Actor-centered institutionalism avoids the extreme assumptions of neoclassical economics. Neoclassical economics (in its purest form) assumes actors to be exclusively motivated by economic self-interest (maximization of profits for firms, maximization of wealth for households). It also assumes actors to perceive the economic environment in the same way as the researcher; to have complete information on the situation they face; and to have computational capacities good enough to select the course of action that will maximize their self-interest. But it is not realistic to think of human actors as being omniscient and single-minded self-interest maximizers who will rationally exploit all opportunities for individual gain regardless of norms and rules. So in contrast, actor-centered institutionalism assumes:

- that actors do not act on the basis of an objective reality but on the basis of a *perceived reality* and of assumed cause-and-effect relationships operating in the world they perceive;
- that they do not only act on the basis of objective needs, but also on the basis of preferences reflecting their *subjectively defined interests and valuations* and their *normative convictions* of how it is right or good or appropriate to act under the circumstances;
- that, more often than not, they will not have complete information on the situations they face;
- and that their computational capabilities are limited.

Intentional action therefore cannot be described without reference to the subjective 'meaning' that this action has for the actor in question (Scharpf, 1997: 20; 60). But actor-centered institutionalism

simultaneously seeks to avoid the opposite extreme of a 'social construction of reality' (Berger & Luckmann, 1966) that ensures the convergence of cognitive orientations through social norms and institutionalized rules that shape and constrain the motivations or preferences of all participants in social interaction (Scharpf, 1997: 21-22). Actor-centered institutionalism does not see these two extremes as mutually exclusive. Human action cannot exclusively be explained by reference to cultural beliefs and institutionalized rules of appropriate behavior – people are intelligent and have views, interests and preferences of their own, which sometimes brings them to evade or violate the norms and rules they are supposed to adhere to. So the rational-actor paradigm may indeed capture the basic driving force of social interaction. Simultaneously, human knowledge is limited and human rationality is bounded, and much human action is based on culturally shaped and socially constructed beliefs about the real world. Most human action will occur in social organizational roles with clearly structured responsibilities and competencies with assigned resources that can be used for specific purposes only. Action within a role is practically impossible to explain without reference to cultural and social definitions of that role and to the institutionalized rules governing it (Scharpf, 1997: 21-22). Role definitions and self-interest maximization can therefore best be seen as two poles simultaneously shaping actor's choices; more precisely, it is the actor's *perception* of both role expectations and his self-interest maximization that drives his choices³.

In actor-centered institutionalism actors (both individual and composite) are characterized by specific capabilities and action orientations (Scharpf, 1997: 43-44). *Capabilities* are all action resources that allow an actor to influence an outcome in certain respects and to a certain degree. They include personal qualities, physical resources, technological capabilities, and privileged access to information. As mentioned in section 2.2.4, particularly important here are action resources that are created by institutional rules defining competencies and granting or limiting rights of participation, of veto, or of autonomous decision. *Action orientations* are, roughly, the characteristic perceptions and preferences of a particular actor. They can be subdivided into three components: unit of reference, cognitive orientations and preferences (Scharpf, 1997: 60-66).

As individuals will not always act on their own behalf, but often in a representative capacity for or from the perspective of a group (family, state), it is important to relate individual behavior to the appropriate *unit of reference* on whose behalf action is undertaken and from whose perspective intentional choices can be explained (Scharpf, 1997: 61). Such role positions are associated with role-specific norms and expectations that will generally be supported by effective sanctions, ranging from social disapproval to criminal prosecution. In role-related action, perceptions and preferences will be derived from the perspective of the social unit on whose behalf the action is performed⁴. We must of course remain alert to the possibility that individual self-interest may become so important in the case at hand that explanations will fail if we do not take them into account (Scharpf, 1997: 61). Even binding rules may sometimes be violated by actors who are willing to pay the price or who think they can get away with it (cf. Scharpf, 1997: 42).

Finally, there is a relational dimension to actor orientations, labeled *interaction orientations* (Scharpf, 1997: 84- 89). The standard assumption within actor-centered institutionalism as well as rational choice theories is individualism: actors are only concerned with their own gains and losses. Contrary to conventional rational choice theories, actor-centered institutionalism allows for the fact that actors are not always entirely unconcerned about the payoffs received by other actors involved. If gains to another party objectively increase or decrease the expected payoffs to one actor, there is no need to conceptualize this dimension separately: it can simply be included in the payoff specification. The concept

of interaction orientations is used for subjective redefinition of the 'objective' interest constellation. A relationship may assume a character of its own for an actor that affects the valuation of 'real' gains and losses and that distinguishes this relationship from others that are objectively similar. Examples are: solidarity (gain to another actor is positively valued), competition (another's loss is equally valued as one's own gain), altruism (own gain is irrelevant, only the others' gain is considered a positive outcome) and hostility (own gain is irrelevant, only the others' losses are considered a positive outcome).

3 *Analyzing markets for intermediate skills: different hands*

3.1 *Introduction*

Van Lieshout (2008) has applied the actor-centered institutionalist framework to analyze and compare how empirical markets for intermediate skills operate under different governance regimes. Such governance regimes consist of a combination of different governance mechanisms that influence each other and the choices actors make. The institutional order, actors' strategies, and their interaction, were analyzed for markets for intermediate skills in (West-) Germany, the American state of Wisconsin, and the Netherlands as they operated in the early and mid nineteen nineties. The existing VET options and the rules and actors governing them were described and analyzed, culminating in an analysis of how the interaction between those rules and actors helps explain the empirically observed choices of young people and firms in those countries.

Different governance regimes result in different strategies available to actors and/or in different expected benefits to similar strategies. In this sense, institutions can help explain different behavior by similar actors in different markets. Simultaneously, actors in training markets are not just passive respondents to incentives posed by certain external rules. Actors have their own action orientation, their own conception of control on how to operate effectively in their environment to acquire the skilled workforce they need. A conception of control is simultaneously a worldview that allows actors to interpret the actions of others and a reflection of how the market is structured (cf. Fligstein, 1996). Such conceptions of control are influenced by past and present institutional aspects of the actor's environment (e.g. the industrial relations system in which they operate) and the incentives it implies in terms of the expected benefits of certain strategies. But conceptions of control are also interdependent: action orientations of some actors will in turn help shape those of others. For instance, firms' typical skill strategies in a certain sector in a certain region will result in particular types of job openings and training options being available. The historic availability of such options will in turn shape the action orientation of (future) workers concerning their own strategic choices. Different action orientations of similar actors will result in different reactions to certain rules or reforms, and therefore help explain the relative stability of major differences between different markets. Governance regimes should thus not be interpreted exclusively as if pure and perfect stimulus-response relations would exist between external rules (institutions), the incentives they entail, and the resulting actors' strategies. Comparing markets for intermediate skills shows the delicate balancing of the quasi-objective incentives posed by the institutional environment and actors' own strategies in markets for intermediate skills. Crouch et al. (1999) have used a similar approach in their book on the skill creation in advanced industrial countries.

This section will summarize main characteristics of the operation of markets for intermediate skills in the three countries, the regimes that govern them, and the skills equilibriums they support. It

will subsequently reflect on the theoretical perspective that we used to analyze our three cases. In particular, it addresses the question if and how it was worthwhile to use a governance approach that explicitly targets multiple alternative coordination mechanisms (markets, firms, state, and associations) and their interaction. Couldn't we achieve similar results with a less extensive typology of governance mechanisms? We reflect on the role of the specific governance mechanisms (firms, state, markets and associations) in our analysis of the cases: if and how is each of these specific governance mechanisms relevant for our analysis of the cases?

3.2 Three different markets for intermediate skills

German, American and Dutch markets for intermediate skills show substantial differences in their operation, despite some similarities such as the existence of apprenticeship legislation.

3.2.1 Germany

The German market for intermediate skills has continued to attract much international attention because it is one of a very few where individual firms' investments in formal VET account for the majority of VET investments. We followed the rest of the literature (e.g. Casey, 1986; 1992; Steedman; 1993; Soskice, 1994) in distinguishing between larger and smaller firms when explaining why so many German firms choose to train apprentices. For smaller firms, apprenticeship costs are so low as compared to (in)direct benefits, that it is plausible that this firms will already recoup their costs during the training period, or if only a small number of apprentices stay on for a short while upon graduation. Larger firms on average incur significant costs during the training period, which is why additional reasons beyond short-term cost-effectiveness are needed to explain their persistent training efforts.

Soskice (1994) distinguished two conditions which help to explain these larger firms' training investments. First, if firms do not recoup the full costs of training over the training period itself, the retention rate of apprentices becomes important. The more apprentices stay on for a longer period, the more additional (in)direct benefits of training will be recouped. The other crucial factor is the relative price of training as compared to the price of alternatives. Firms will train as long as the costs of apprenticeship training are less than the costs of firm-specific training for external recruits plus the costs of risking recruitment of a 'lemon' (a person hired in the external labour market that turns out to be less than adequate). With this second factor, the choice of other actors become a core ingredient into the decision making process: as long as most firms choose to train, it is not only feasible but smart to train yourself (because of the substantial 'lemon' risk of not training yourself).

Within the German institutional (education and labour market) environment, it does not only make sense for the large majority of German firms to invest in apprenticeship training, but for the large majority of German youngsters as well. The key reason is, that German firms predominantly recruit their future skilled workers as apprentices they train themselves. Soskice (1994: 33) has pointed out that German apprenticeship is a rank-order tournament. Not each apprenticeship position is equally attractive, and school-leavers rank apprenticeship across sectors, firms, and even within an individual firm. German youngsters actively compete for the best apprenticeship positions, as career prospects differ with the occupation and firm in which one is trained. (The more attractive) Firms carefully screen school performances of applicants, and often administer their own tests as well. This creates an important

feedback effect: German children are stimulated to work hard in school in their early teens, as they will be rewarded for their efforts by a more attractive apprenticeship position in their late teens.

And this feedback effect causes another feedback effect: because young people tend to work hard in school in the years before apprenticeship, German firms get apprentices with a relatively decent (general) skills basis. This helps them to keep training costs low, as compared to firms in countries where 16-years-olds are not as qualified.

The German case shows that as long as children already start working hard in school, and firms reward their efforts with the more attractive entry jobs with related career prospects, a stable high-skills equilibrium in the market for intermediate skills is possible. We noted that this high-skills equilibrium is achieved through a market that is free (in the sense that firms as well as apprentices are free to enter the market) but regulated (through apprenticeship legislation and related regulation such as skills standards for training occupations). And we noted that it achieves overlapping occupational and internal markets that tend to combine advantages of both.

3.2.2 The American state of Wisconsin

Our next case, the U.S. shows us why such a high-skills equilibrium is harder to achieve than the German example might seem to indicate. The U.S. suffers from what has been labeled a 'missing middle' on its labour market (Berryman et al., 1992: 1).

An important cause for the difficulty that American young people experience in finding career jobs lies in the functioning of American labour markets. On the one hand, occupational labour markets are underdeveloped. On the other, American internal labour markets have typically not demanded high skills from new recruits, but have relied on gradual informal on-the-job learning for incumbent frontline workers.

The small size of apprenticeship is a case in point for the underdevelopment of occupational labour markets. Only in unionized construction has apprenticeship traditionally provided a basis for occupational labour markets. Outside unionized construction, apprenticeship positions are either completely lacking (as in the banking sector) or reserved for the training of a small incumbent worker elite (as in the metalworking sector). This German-Wisconsin difference is all the more intriguing as the Wisconsin (adult) apprenticeship regime was explicitly inspired by the example of German apprenticeship legislation from the early 20th century (cf. Van Lieshout, 1996b)⁵. Apparently, mimicking (apprenticeship) legislation will not necessarily lead to similar results. While there were differences in apprenticeship legislation between both countries in the mid-nineties, other factors seem more important to explain the diverging paths both apprenticeship systems took.

For one, the lack of multi-firm collective bargaining agreements that set relatively high minimum wage rates across sectors and regions in Wisconsin implies that Wisconsin firms can more readily train regular workers informally at lower wage levels than their German counterparts. Because starting wages for regular workers can be lower in Wisconsin than in Germany, and because apprentice wages are relatively higher, there is a substantially slighter (if any) benefit (in terms of lower training costs) in apprenticing somebody over hiring him/her as a regular worker to train informally on-the-job.

A second important factor is the fact that American firms face few constraints on lay-offs as compared to their German counterparts. The combination of both enables American firms to more readily pursue business strategies focusing on low wages and numerical flexibility. Tayloristic work organization

and Fordist production methods originated in the U.S. and shaped work organization in American firms. Important evidence for its effect on training policies and apprenticeship in particular comes from Parker's historical research on the attempt to create a German-style apprenticeship system in Wisconsin metalworking in the Milwaukee district in the first decades of the 20th century (Parker, 1994; 1996). Parker discovered that while these metalworking employers had been active in organizing apprenticeship in the nineteen twenties, they were at the same time eroding the basis for it by gradually adopting Tayloristic and Fordist production methods that would leave the majority of their workforce in semi-skilled jobs. Thus, they subsequently had less need for intensive apprenticeship training to the journeyman level. In the nineteen nineties, the lower levels in the work hierarchy in many metalworking and other industrial firms were still relatively low-skilled.

Third, higher wage differentials make it easier to poach trained workers than in Germany. 'Poaching', is not necessarily a pirating action by another firm, but may very well be a consequence of a worker's own choice to leave, as some historical explanations for the decline of American apprenticeship in the nineteenth and early twentieth century have argued (cf. Elbaum, 1989; Jacoby, 1991; Elbaum & Singh, 1995).

Furthermore, Wisconsin's technical colleges provide a quality school-based alternative to apprenticeship training, whereby the cost of training is shared by the student and the state.

And finally, one cannot neglect the fact that the image of apprenticeship as an institution in the U.S. has always been strongly connected to union involvement (more so than in Europe) with the prestige of American unions being much lower than their German and Dutch counterparts (cf. Jacoby, 1991).

Internal labour markets can be seen as a mechanism to prevent poaching, since these limit access to the most attractive jobs to those who stay with their firm (Sako, 1991). American internal labour markets have been characterized by the aforementioned Tayloristic and Fordist tradition of work organization in American industry. First, jobs on the lower rungs of the internal career ladder are relatively low-skilled. Second, promotion is often granted according to formalized job ladders and seniority rules. Outsiders are typically hired predominantly on the bottom rung(s) of these job ladders. Since these entry-level jobs are not apprenticeships, young people are as expensive to hire for those jobs as adult workers. This is why American employers have generally preferred to hire adults with some relevant work experience for such positions (Osterman, 1980).

Theoretically, an ample supply of quality school-based training and a massive participation in it could compensate for a lack of work based training for young people. But American internal labour markets have given young people little reason to enroll in demanding school-based VET courses:

- First, opportunities for entering other firms on higher job rungs are scarce, so VET certificates do not directly qualify for more attractive occupational labour markets; of all workers, a staggering 94.2% of German workers indicated they had needed qualifications to obtain their current job, as compared to only 55.8% of their American counterparts (OECD, 1994b: 144);
- Second, entry-level positions in American internal labour markets typically don't require many skills;
- Third, formal general or vocational credentials have typically counted less than seniority for promotion to higher rungs on internal career ladders;
- Fourth, pay-rates are based solely on the characteristics of the job, not on that of the worker – or his/her credentials. As an indicator, the relative importance of human capital variables to industry

variables in explaining inter-industry wage differentials is substantially lower in the U.S. than in Germany (Bellmann & Möller, 1995: 153).

Most non-college bound youngsters have therefore historically opted to directly enter the labour market, accept an un- or semi-skilled job as attractive as can be found, and slowly work their way up from there.

While American labour markets on average do reward high school graduation somewhat in terms of a wage premium, American firms do not put much trust in a high school diploma per se. Apparently, the lack of competency standards lets schools for younger age groups simply pass their failures and problems up to the top of the system (Tucker, 1994b: 3). And this lack is not compensated by rigorous screening of high school records by employers when they hire youngsters and young adults. For first employers, a certificate in itself tends to be enough. There was no relation between school performance and the attractiveness of first jobs in the U.S. (Rosenbaum & Kariya, 1991). And by the time that the young adult finds an employer that offers him a more (career) promising entry-level position on an internal labour market, this employer will find an applicant's last job(s) and any (technical) college courses taken since high school graduation more informative than the students' high school transcript of a few years ago.

While American labour markets thus do not exactly encourage young people to work hard in secondary school, four-year colleges do. The number of high school graduates that transfers to a (prestigious) four-year college has traditionally been the most distinct benchmark to measure the performance of American high schools. This has made college prep the dominant track in American high schools, and has allowed an underdevelopment of VET programs – particularly, as they are relatively expensive for the (on average) small school districts. The general American dislike for tracking young people in separate tracks has kept the parents of this 'forgotten half' from demanding such VET programs. And to complete this vicious circle: with few high school students graduating from quality vocational programs, American firms have had little reason to aim their recruiting efforts for their more demanding entry-level positions at high school graduates.

It is, in this context, easy to understand why America's two-year colleges, such as Wisconsin's technical colleges, have been a relative success story (Brint & Karabel, 1991): they offer quality training in a low-skills environment. They do, however, (so far) not supply the large majority of non-college bound youngsters with a smooth school-to-work transition the way the German apprenticeship system does. In Wisconsin, relatively few people enroll in WTCS programs immediately after high school. Only about a third of WTCS FTE enrollments were in vocational programs that train frontline workers (Rogers et al., 1991). Furthermore, the lack of binding national or statewide (skills) standards and assessment procedures does not guarantee a certain minimum quality of VET. And, the dispersion of VET across various independent and decentralized systems that are only weakly linked does not make the available options very transparent for young persons, parents or adult workers. In short, there are problems of too little coordination and cooperation in these areas (Rogers & Streeck, 1991: 11).

It is in this context that American and Wisconsin policy-makers have embarked on ambitious attempts to 'build the middle' (Berryman et al, 1992) in the nineties. They developed reform efforts that generally tried to improve the school-to-work transition for American youngsters through the development of coordinated industry-wide VET systems. Specifically, these efforts have included some policies inspired by Germany. But rather than to strive for a copying of the German market (as some had

put forward) the ambition eventually amounted to trying to build partial German-style institutional arrangements - be it national sector skills standards partnerships, local school-to-work partnerships or specific youth apprenticeship programs.

3.2.3 The Netherlands

Chapter five analyzed the Dutch case. The Dutch case resembles the German one in that it, too, constitutes a high-skills equilibrium with most youth enrolling in (and many but not all graduating from) multi-year VET tracks. Dutch work organization and firms' recruitment practices have put a premium on substantial initial VET for youths much like in Germany. But while in Germany incentives channel young persons into apprenticeship, the Dutch governance regime offers more ways, both to firms and youths. For one, both firms and young people can opt for work-based and (primarily) school-based tracks offering a full vocational credential. Second, firms and young people both have the alternative of regular low (youth) wage employment much more readily available to them than their German counterparts - more like is the case in the U.S.. While German low-wage youth employment is predominantly institutionalized as apprenticeship training (and thus includes training rights), there are some Dutch sectors that employ a large share of young people at low wage levels below the adult minimum wage in regular jobs not linked to formal training provision. Both the prominent role of fully qualifying school-based VET and the more prominent role for regular youth employment without training in some sectors help explain the smaller supply of apprenticeship training in the Netherlands as compared to Germany.

When compared to the U.S., of course, Dutch firms still do invest substantially in formal work-based VET themselves: through the supply of apprenticeship positions and through the supply of internship position for those enrolled in (predominantly) school-based VET tracks. Within the Netherlands, the relative importance of dual, more school-based initial tracks and regular youth employment differs significantly between different sectors in the context of similar national legislation. This underlines the importance of sector level variables, including differences in conceptions of control of firms and other relevant actors.

3.3 Firms as a coordination mechanism

3.3.1 Explaining training investments

Firms' training investments (or lack thereof) themselves were central to the analysis throughout this book. We want to understand if, how and why firms will invest in training. We have analyzed if, how and why firms choose to train youth (or not) within the institutional context of Germany, the American state of Wisconsin, and the Netherlands.

Differences in external incentives certainly go a long way in explaining differences in firm's training investments as rational responses to different external environments. For smaller German firms, apprenticeship costs are so low as compared to (in)direct benefits, that it is plausible that these firms will already recoup their training costs during the training period, or if only a small number of apprentices stay on for a short while upon graduation. Larger firms can afford to incur significant costs during the training period, because most apprentices will stay on with these larger training firms beyond their graduation (which generates additional benefits) and because not recruiting apprentices means risking a

substantial recruitment problem down the road. The lack of equivalent school-based VET tracks next to apprenticeship in Germany helps explain the fact the (work-based) training investments of firms for initial VET are relatively higher in Germany as compared to the Netherlands.

If, to an important extent, we can already understand national differences in firms' strategies as logical responses of firms to a different external institutional environment, why not just 'model' the firms as an owner-manager that rationally responds to external incentives, instead of going the more complex route of including the firm not just as an actor, but as a governance mechanism? Why not just leave the rest of what goes on at the firm level a proverbial black box?

A closer look at Soskice's explanatory model already begins to answer that question. Soskice (1994) distinguishes the retention rate of apprentices and the price of training relative to alternatives as two important factors explaining firms' training investments (or lack thereof). Firms will train as long as the costs of apprenticeship training are less than the costs of firm-specific training for external recruits plus the costs of risking recruitment of a 'lemon' (a person hired in the external labour market that turns out to be less than adequate). Through both factors, firms' choices already move beyond a pure response to an external incentive. The retention rate of apprentices is not a completely exogenous factor: while it is dependent upon the choices of the apprentices themselves, the high retention rate of German apprentices is also a consequence of conscious firm strategies. German firms (in particular the larger ones) plan to retain a large share of their apprentices, and this intention is a prominent part of their reason to hire these apprentices.

In addition, an anticipation (based upon past experience) of choices by other actors is an important factor entering into training decisions. Two instances of such anticipations are important in the explanation of the substantial training investments by German firms. The first is the anticipation that most apprentices will continue to stay with the training firm when giving the opportunity, as they have in the past. Second, the anticipation that the very large majority of (larger) firms will again hire a substantial number of apprentices this year to satisfy their own future skilled worker demand - and be able to retain them upon graduation. This enters the training decision equation as a push factor towards training investments: if we do not hire apprentices today, the cream of the crop of this generation will continue to work for our local competitors.

This way, a closer look at the explanatory model for German firms' apprenticeship investments already shows that a somewhat more comprehensive analysis of firms is required to adequately understand their training investments. When one would focus the analysis on understanding the reasons why firms do (or do not) opt to invest in initial work-based VET within one single country, at the very least we have to incorporate the anticipation (based on past experiences) of the behavior of other actors into the analysis.

3.3.2 Work organization

When we focus on differences in training investments between firms in different countries, it becomes even more important to include other factors into the explanation. A prime case in point is the case of (adult) apprenticeship in Wisconsin. The institutional regime for that apprenticeship was explicitly modelled on the German example of the early twentieth century from which, obviously, also the modern German apprenticeship system emerged. But we have seen that both regimes have resulted in very different market outcomes. While modern German apprenticeship constitutes an almost perfect monopoly

on the school-to-work transition for German youth, its Wisconsin sibling (with the exception of the construction sector) evolved into an elite incumbent worker training system in a minority of sectors.

Even if differences in modern apprenticeship legislation had emerged between the German and Wisconsin apprenticeship governance regimes by the nineteen nineties (cf. Van Lieshout, 1996b), these differences themselves do not appear to be most important factor in explaining the German-Wisconsin differences in training behavior by firms and young people. They may very well be the result of these differences: since Wisconsin (adult) apprenticeship failed to achieve a significant market share throughout the economy, it is understandable that its regulations has not been the subject of serious public scrutiny (from the general population, social partners and political parties) and reforms as in Germany, where the law came to govern the large majority of skills training in the large majority.

There are other external institutional differences between Germany and the U.S./Wisconsin governance regimes to be considered, such as the lack of sector-level collective bargaining in the U.S. outside of unionized construction, and lack of strict constraints on dismissals in the U.S. (cf. van Lieshout, 2008). But these factors are best analyzed as possible remote causes of the resulting international differences. The proverbial elephant in the room, and the readily available proximate cause of international differences in training behavior between German and Wisconsin firms are differences in the organization of work.

The demand for labour and, thus, for particular sets of qualifications, is shaped first and foremost by the organization of work. And with most employment taking place in firms, the firm is the most important single actor shaping this organization. Matched establishment comparison in various economic sectors show relevant international differences in work organization as well as workforce qualifications and labour productivity, and the links between them (cf. van Lieshout, 1999b, for an overview). Firms shape their training policies on the basis of their work organization - a work organization they have developed within their particular institutional context. And it is this causal chain with which adequate explanations of national differences in firms' training investments start.

Parker's historical research on the attempt to create a German-style apprenticeship system in the metalworking sector in the Milwaukee district in the first decades of the 19th century provides us with an excellent example (Parker, 1994; 1996). Parker observed that while these employers were active in organizing apprenticeship over the nineteen twenties, they were at the same time eroding the basis for it by gradually adopting Tayloristic and Fordist production methods that would leave the majority of their workforce in semi-skilled jobs. His analysis points us to the credible hypothesis that the core of an explanation for the very different paths of Wisconsin (adult) apprenticeship and German apprenticeship with their similar legislative roots may very well be changing firm strategies towards work organization than in external institutional differences.

Of course, firms do not develop their work organization in a splendid isolation, and exploring the causes of national differences in work organization will in turn lead us to (possibly institutional) remote causes. If, for instance, firms happen to find themselves in a country where the education system in general (and possibly an apprenticeship system in particular) provides an ample supply of skilled workers, a high-skill strategy is a much more viable option. Firms shape their training policies (and their human resources policies in general) in a particular institutional context in a particular region at a particular point in time. Many of the rules that influence their choices are to an important extent set at a relatively high (national) level. The prominent role of work organization therefore does not diminish the importance of external institutions; in fact, it requires us to consider a broader range of institutions,

rather than overstate the importance of individual institutions within the training markets themselves. Given the fact that firms in different countries have different action orientations, they can respond differently to similar institutions in the training market itself. As work organization is an important proximate cause that helps us to understand and explain such differences, it becomes interesting to consider the remote (and possibly institutional) causes of how such differences in work organization have emerged.

From a theoretical standpoint, the important role of work organization as a proximate cause for differences in training policies is one important reason why international comparative research on different skill equilibria and school-to-work transition patterns is well-served by a multilevel approach that includes the firm level as a separate topic for analysis. Firms' work organization is the result of previous choices that will shape their subsequent training choices as a proximate cause. External institutional factors at the sector and national level will previously have influenced their choices in work organization, and will currently interact with the demands and consequences of that work organization to shape current training choices.

3.3.3 Recruitment

German-Wisconsin differences in the operation of the apprenticeship market lead us to additional evidence for the importance of including firm-level research and analysis into a comparison of markets for intermediate skills. As important as work organization is, it is not the only aspect to consider at the firm level: recruitment policies and practices are another relevant variable to consider. The concept of 'ports of entry' to firms internal labour markets (Kerr, 1954) reminded us that not all jobs are effectively open to outsiders. Recruitment is a vital intermediating variable that shapes the operation of labour and training markets, and their social and economic effects.

Prime case-in-point is the very different effect of the (adult) apprenticeship governance regime in Wisconsin in general, and in the metalworking sector in particular, from that of its German counterpart. At first, it was kind of puzzling to come from an analysis of Germany with an apprenticeship system governing the school-to-work transition, to arrive in an American state that a) has an apprenticeship law that does not generate much training and b) was trying to improve its school-to-work transition by (among many other things) building a separate youth apprenticeship system. It was, of course, obvious from the low number of apprentices that Wisconsin apprenticeship only played a minor role in the school-to-work transition. During the field work, however, we learned that even a substantial share of apprenticeship does not address the school-to-work transition! Firm visits and interviews indicated that Wisconsin metalworking apprentices typically had already been working for the firm and were promoted from an entry-level job within that firm to an apprenticeship position. Because the majority of (adult) apprenticeship recruits in Wisconsin metalworking firms are not (high) school graduates but (incumbent) workers, the adult apprenticeship system obviously did not even function as a (direct) school-to-work transition mechanism there.

Theoretically (as well as for public policy purposes), this little fact teaches us two lessons. First, it provides an additional argument to argue our case that firm strategies/internal labour market aspects may significantly alter the operation of an apprenticeship system and therefore the firm level has to be separately included in the empirical and theoretical analysis.

Second, we learn that apprenticeship systems do not by definition govern the school-to-work transition. They only do so if and when firms opt to recruit school graduates as apprentices, instead of those who have entered the labour market. Realizing who metalworking apprenticeship started as a new youth training system almost a century ago, and evolved into an elite incumbent worker training system, it seems that school-based education systems are that may 'drift' from their original goals. In this sector at least, this Wisconsin adult apprenticeship appears to have experienced a small but relevant 'work experience' or 'age' drift. The drift is understandable given Parker's analysis of the role of changing work organization in those firms by the nineteen thirties. As work organization gradually developed to require many semi-skilled jobs and fewer skilled jobs requiring apprenticeship training, mass apprenticeship for all new recruits was no longer required. But, simultaneously, apprenticeship then becomes a possible route for upward mobility for incumbent semi-skilled workers. Both human resources management and a union would soon agree that apprenticeship opportunities should first and foremost be made available to incumbent workers. For management, the lack of comparable high school vocational credentials also makes it safer to recruit incumbent workers whose talent and skills and competencies they have been able to observe themselves for a while, than high school graduates.

The metalworking sector was not the only one to find an indication of the importance of recruiting policies and practices for different training patterns. While teller jobs in both Dutch and German banking were 'career' jobs for those lacking a college education, our (limited) field work on this sector in Wisconsin suggested that tellers there were often recruited from the college student ranks. Instead of career jobs, teller was often a 'side' job to help support a college education. The high general education level of the students helps to limit banks' training costs; the downside may have been that the shallower bank-specific skills of tellers may offer one explanation why American banks have not been as successful in capturing the rapidly developing personal financial service market, as Keltner (1995) argued. Keltner's argument in fact was that American banks, because of their work organization and human resources policies, failed to develop the type of professional needed to capture the rapidly developing high-end market for financial advice.

3.3.4 Firms' action orientations as a proximate cause

Firms' policies are shaped, but not completely determined, by their current institutional environment. Within that context, firms (and other actors) are obviously free to choose their own policies, to train or not, and to hire whomever for whichever job description they choose. The institutional context makes some options more attractive than others. Thus, institutions and regulation matters because the influence costs and benefits of alternative options, and may cause national differences.

But institutions do not directly determine firm's training choices. They provide an environment to which firms respond - but firms may respond differently to similar environments. Because they do not just face an external environment: their current (work) organization and workforce are as important in shaping their training choices. National differences in firm's internal make-up may therefore be objective causes for the fact that different firms respond differently to similar external incentives. Section 3.3.2 provided us with the example of how differences in work organization seem a key factor responsible for the diverging paths of similar apprenticeship systems in Wisconsin and Germany.

Firms do not constantly meet and weigh the impact and balance the effects of such internal and external incentives, and the costs and benefits they imply for their training strategies. Such

strategies are relatively stable; and they are generally the result of any detailed accounting. While firms make conscious decisions regarding training, it was instructive to note that firms in neither country tended to make cost-benefit calculations of training and alternative options. For Germany, this is what von Bardeleben et al. (1994a; 1994b; 1995) learned when they embarked upon empirical research to determine such costs and benefits. In addition, von Bardeleben et al. and others that have made such cost-benefit analyses have had to include an important category of so-called indirect training benefits such as lower recruitment and selection costs, lower risk of wrong recruitment decisions and a positive image for training firms. These costs are needed to explain why it may be rational for larger firms to invest in training beyond the direct benefits they will receive from such investments. But even in such research, these indirect categories are only roughly estimated. The point is that (German) training firms apparently think such indirect benefits exist, and that the balance of their training investments is positive for their firms, without having actually made detailed cost-benefit analyses of their substantial training investments themselves. Training decisions are generally not the outcome of a detailed and exact analysis, but rather reflect a more qualitative strategic decision.

Theoretically, the notion of an action orientation of firms towards training fits in well with this empirical evidence. Both external institutions and internal will have shaped firms' action orientations regarding training. And, rather than to make any detailed analysis of if how and why particular internal or external changes would have to lead a change in training policies, firms respond to such changes from these action orientations. Given the fact that such action orientations can differ substantially between countries (and sectors), a similar change in an external environment will illicit different responses from firms with different action orientations.

The best example is offered by firms' reaction to the possibility of more state intervention with VET in Germany than in the Netherlands. When, in the days of Dutch Secretary of Education Mr. Ritzen, firms feared that the government might use its dualization proposals as a pre-text to scale back public VET investments (a claim that, to be sure, has always been strongly claimed to be unfounded by that government), preventing that became an important goal of employers' associations (and unions) in reform debates and covenants that were concluded. In the German case, firms and their associations react as strongly to a possible change in state intervention – but, contrary to their Dutch counterparts, they are up in arms when the state threatens to intervene more in funding issues (i.e. by imposing a levy system). German firms share an action orientation where they believe that there is no satisfactory functional equivalent to firm-based training under a regime governed (to an important extent) by their own associations. They will even counteract their short-term self-interest in the short term (by hiring additional apprentices they will not need themselves) to preserve that system. While some Dutch and Wisconsin firms may feel as strongly about their own apprenticeship system, the majority of firms in those countries do not have that conviction. They consider school-based training a satisfactory functional equivalent.

3.3.5 Conclusions

Firms are more than just actors that respond to incentives posed by external institutions. Apprenticeship training, by its very nature, is a conscious choice to not rely on recruitment in the external labour market. Apprenticeship training implies that the firm chooses to start a long-term relation with a (future) worker who does not yet command all the skills needed for the job he is projected to fulfill a few years

down the line, and to systematically train him to acquire those skills in the near future. Apprenticeship training, in this sense, is a perfect example of how a firm can act as an alternative coordination mechanism to an (external) market. The choice to train (and how) is influenced by external incentives (e.g. apprenticeship legislation), by expected behavior by other actors (e.g. other firms), and by internal aspects of the firm itself (e.g. work organization). We have seen that even apprenticeship training, based on similar legislative roots, can take quite different forms in different countries – and in different sectors, as we will further elaborate in the next section.

3.4 The role of associational governance

Besides firms, the other governance mechanism we specifically included in our theoretical approach was associations. Streeck et al. (1987) had already pointed out the important roles German employers' associations and unions have in the governance German apprenticeship in terms of regulation, financing, implementation and supervision and control. Both the German and Dutch high-skills equilibrium comes with important governing roles for these associations. In Germany, the strong role of associations in apprenticeship governance was cemented in the 1969 Vocational Training Act. In the Netherlands, the formal role for Dutch employers' associations in VET governance has been steadily enlarged since the nineteen eighties, both at the sector and the national level. The governing roles they already had with the old Dutch apprenticeship were expanded to roles regarding school-based vocational training, and these new roles were cemented in the new 1996 Act. The American low-skills equilibrium generally lacks governing roles for associations. Even apprenticeship governance in Wisconsin is generally a case of the state monitoring individual firms, rather than an example of associational governance.

But the one exception we find in Wisconsin is, therefore, particularly intriguing. In unionized construction, apprenticeship forms a German-like monopoly on training for young persons (unionized construction). And in this sector, employers' associations and unions do play important governing roles in the apprenticeship system. Joint apprenticeship committees are the sponsor of apprenticeship programs, and they place the apprentices with individual firms. The funding comes from a levy on union workers' wages. This example shows that even in the U.S., it is indeed possible to create a flourishing apprenticeship system through sector-level and regional supports. In addition, we found a non-union employers' association creating its own apprenticeship system for non-union construction sector. Associational governance for apprenticeship does, thus, not always include union involvement.

Important as associations are for an analysis of training governance regimes, one should be careful not to overstate their case. Katz & Ziderman (1990), for instance, hypothesize that German chambers of commerce (which basically are employer's associations that also perform some public tasks) strongly and effectively discourage competition for skilled workers among firms. While there is certainly some peer pressure under German employers to each train their own apprentice, this appears to be a vast exaggeration of the extent to which this actually happens. German firms train apprentices, first and foremost, because they perceive it to be in their individual interest. Peers may play an additional role in shaping that opinion: the mental barrier to stop training is certainly higher if you would be the only one in your regional association to not train your own apprentices. But German firms are not coerced into training because by their associations. In fact, it is because German firms want to train themselves that they have asked their associations to govern and uphold the system.

Overstating the role of peer pressure through associations in Germany also neglects the important role that conscious union strategies have played in shaping a governance regime for the German market for intermediate skills that supports a high-skills equilibrium. German unions have always pressed for an apprenticeship system that guarantees high quality training for all (future) workers. They try to strengthen their power by maximizing the homogeneity of the workforce they represent, which explains their interest in keeping the level of both horizontal and vertical external differentiation in apprenticeship low (cf. Streeck et al, 1987). And they are willing to make apprenticeship training affordable by allowing firms to negotiate low apprenticeship wages with them for their (future) members. The broadness of those German industrial unions in combination with their conviction that a more homogenous workforce strengthens their bargaining power has led them to champion significant reorganizations of a large number of separate training occupations over time into lesser occupations with more overlap in their basic training content⁶.

These in fact have an additional incentive to pursue high-skill training policies: as their members' firms compete with non-union firms that can charge lower prices to the extent that they pay lower wages, the union sector's claim to offer higher quality craftsmen is vital to their local competitive position. The resemblance between German industrial unions and these craft unions lies in the vigor with which they strive to maintain apprenticeship as the general port of entry into their occupation – although in both instances, employers and their associations generally seem to agree with that goal.

Another observation is relevant here. While associations play important roles in the governance of German apprenticeship, there is one important role they do generally not fulfill. In many apprenticeship systems an important part of the training costs is covered through training funds that are created in sector level collective bargaining agreements. In our three countries in this study, such funds exist for apprenticeship in Wisconsin construction and in many Dutch sectors. With the exception of the construction sector, however, such funds are conspicuously lacking in Germany – with the exception of the construction sector. While such funds are considered important institutional supports for apprenticeship systems, the world's most famous apprenticeship system apparently can do without.

Having cautioned against overstating the importance of associations, the conclusion remains that associational governance plays an important role in successful markets for intermediate skills, particularly those where work-based learning plays a key role. Collective bargaining can help to keep training affordable by defining low training wages as compared to (semi-)skilled wages. The other side to that coin is to give the trainees rights, e.g. by guaranteeing training quality up front (through binding skill standards), and by institutionalizing entitlements to reward training completion (e.g. high skilled worker wages). And, thirdly, employers' associations can indeed function as a stabilizing factor in maintaining the consensus in a particular regional and sectoral business community that it is in their members' long-term interest to continue their training investments. The example of apprenticeship in unionized construction in Wisconsin shows that associational governance can effectively support an apprenticeship system in a national environment where that system normally flounders. It is, therefore, understandable that countries trying to stimulate work-based learning have attempted to strengthen the potential for associational governance. Examples in our cases were the expansion of associational governance into Dutch school-based VET, American subsidies for national partnerships to develop skills standards and for local school-to-work partnerships, as well as the emergence of a Wisconsin Regional Training Partnership (cf. van Lieshout, 2008).

3.5 *Market mechanisms*

The importance of firms and associations as alternative governance mechanisms does not negate the operation of market mechanisms. But the role (or lack thereof) of these other governance mechanisms does shape how and why market mechanisms operate within in particular country. And, in fact, such alternative governance mechanisms may help market mechanisms to function adequately.

Empirical markets for intermediate skills themselves are not adequately modeled as one single market with a simple, uniform product (skilled labour) supplied by one uniform type of producer (schools) and demanded by one uniform type of consumer (firms)⁷. Skill acquisition takes place over more years over an individual worker's career. Some of it will take place in (public or private) schools; a lot of it will take place through formal or informal learning on various jobs (that may be closely related or differ distinctly in their contents); and some of it occurs in other spheres of life. Because of the importance of firms as both producers and consumers of skilled labour, supply and demand side of markets for intermediate skills cannot be distinguished as neatly as in (most) commodity markets.

In fact, modeling markets for intermediate skills as one single market would underestimate the importance of market mechanisms: market mechanisms play an important role at several points in time across a school-to-work transition. We at least have to distinguish between a market where students (or young workers) choose between VET (and academic) options, and a market where VET graduates search for jobs they have been training for. These two markets are linked through the VET tracks if and when progress through tracks – but they nevertheless remain different markets that citizens enter at different points in time.

If and when the training occurs in firms, in analytical terms this is where choose for 'hierarchy' as a coordination mechanism in house, rather than to purchase skilled labour on the external market. Even then, however, this does not mean that the external market does not play a role. Quite to the contrary: the fact that firms commit to apprentices for a while results in focused matching process. Take the metalworking sector in the German state of Baden-Württemberg for an example. The large majority of metalworking firms train their own apprentices to an extent that typically matches their future (skilled) labour market demand. Since they invest heavily in this training, they have a vested interest in recouping their investments by retaining most graduated apprentices as regular skilled workers upon their graduation. Thus, they tend to be careful and thorough in their apprentice recruitment. For the young people, the apprenticeship monopoly implies that interesting career openings tend to arise as an apprenticeship. When successfully progressing through that apprenticeship training, chances are that a suitable vacancy will be available for the apprentice upon graduation – and when the apprentices has done well, he will get the job. But this simultaneously implies that that vacancy will never be open to anyone looking for employment from outside that firm. Thus, young people have a vested interest in acquiring an apprenticeship position. And, since their school record will be an important part of the evaluation process.

The interesting thing here is that the result is what Soskice (1994) has labelled a rank-order tournament. Not each apprenticeship position is equally attractive, and school-leavers rank apprenticeship across sectors, firms, and individual firms for a particular training occupation. The interesting thing is that German apprenticeship shares this aspect with the most famous system of higher education: the American market for higher education. Despite the formal equality of American college diploma's and German appenticeship graduation, informal differences in status of those college and

training firms results in active competition between American youngsters for access to the best colleges, and between German youngsters for access to the best internal labour markets through an apprenticeship position. When comparing the German apprenticeship market to the American market for intermediate skills, the difference is certainly between an organized and an unorganized market. And the organized market seems to bring out the best behavior of both firms and young people.

The German apprenticeship system is conducive to the operation of the labour market, too. The reliable credentials provided by apprenticeship provide a solid basis for external mobility for skilled workers. The fact that inter-firm mobility under apprenticeship graduates is not very high is not a reflection of the impossibility of mobility, but a reflection of the fact that most firms already have trained their own and are happy with the results. The overlapping of occupational and internal labour markets seems to combine the best of both worlds for young workers.

3.6 States and their different playing fields

International differences in the role of firms and associations as governance mechanisms in markets for intermediate skills implies that states play different fields when governing VET markets. The fact that German firms continue to train apprentices, and will oppose attempts at increased state intervention in the training market, makes the governing task for the German state distinct from its Dutch counterpart, let alone its American one. American states faced a situation where young people enroll in high schools focussed on college preparation, and without an apprenticeship system of any quantitative significance. The German state faced a situation where they can effectively coerce firms to up their apprenticeship training efforts above their immediate individual need by threatening to take over the responsibility for and provision of VET from the social partners.

We saw how similar attempts at apprenticeship legislation may still lead to quite divergent results, due to differences in work organization. We also saw that in a country where the apprenticeship volume overall is almost negligible, sector-level governance may still make it very relevant in a particular sector, as we saw in unionized construction in Wisconsin. For states, governing the market for intermediate skills is thus more complicated than 'just' setting the legal incentives right. Legal incentives may still achieve different results in different countries. And, vice versa, different countries may benefit from different legislation. Just as we cautioned against overstating the importance of associational governance, we have to caution against overstating the autonomous power of the state in governing VET.

With that caveat, there are still things states can learn from a careful analysis of how various markets of intermediate skills operate. For instance, there are basically three important aspects that help explain the Dutch and German⁸ school-to-work transitions, as well as the apparent attractiveness of organized VET to young people:

- firms do actively recruit young people;
- firms actively screen young people and include close scrutiny of their school performance as an important indicator;
- young persons are actively helped at the local level with their school-to-work transition – although the Netherlands has been much weaker here than Germany.

While states cannot directly influence the first two aspects, they can at least try to stimulate this type of behavior by firms. For instance, they can try to build a reliable skills standards system to make it easier

to screen young people's credentials, and easier screening may stimulate recruitment. They can directly try to help youth with their school-to-work transition at the local level.

One important consequence of the importance of other governance mechanisms such as the firm and associations is that labour market governance is at least as important as educational/VET governance in the narrow sense markets for intermediate skills. This is a lesson relevant for both academic analysts as well as policymakers. VET governance in general, and work-based VET governance in particular, is a way to potentially help shape internal labour markets into potentially occupational labour markets, and thus ensure that there are organized training opportunities available that can effectively serve as ports of entry into firm's internal labour markets for young people. This insight can also help generate additional possible policy options. To give one example: when the Netherlands tried to stimulate work-based learning, the debate focused on increasing the work-based component of school-based tracks. But the Dutch state could have tried to stimulate apprenticeship beyond its boundaries at the time had it aimed by focusing not on school-based tracks, but on low-wage regular youth employment as a source for that growth. By allowing low-wage youth employment without guaranteed training rights (such as included in apprenticeship contracts) a considerable share of Dutch youth employment takes that form, rather than the form of an apprenticeship as is the case in Germany. Limiting low youth wages to apprenticeship could thus result in a growth of Dutch apprenticeship.

Institutionalizing (VET) schools and their operation is obviously another major part of the role of the state – and one that it does fulfill quite autonomously, in the end. In Germany, VET schools are distinctly a junior partner to assist the firm with the training of its apprentices. An important junior partner, which deserves and receives a lot of respect – but a junior partner nonetheless. Given the fact that apprenticeship is the centre around which the various types of full-time VET are organized, related instruction for apprenticeship is central in their policies.

The role of Wisconsin's technical colleges is different. They are the dominant supplier of organized VET in their region. Only for a limited number of occupations and a limited number of apprentices does that supply consist of related instruction. School-based VET is the core business of these colleges, with many students employed and following specific courses next to their job, rather than multi-year programs. In addition, since the initiative to develop new pathways or programs does not reside with (employers') associations and unions as in Germany, they have an entrepreneurial role in organizing the VET supply for their region.

The Dutch ROCs developed through a series of mergers between various small schools with sometimes quite different identities. These differences stemmed from the type of tracks the different establishments offered (related instruction, or adult education, or MBO) and the economic sector they offered VET for. The resulting large ROCs more closely resemble the Wisconsin Technical Colleges, which should not surprise us as American two-year colleges served as the example on which the Dutch ROC formation was explicitly based (cf. Van Lieshout, 1996c: 5). As compared to the German VET schools, the primary difference is that overall, school-based training makes up a larger part of Dutch VET supply than work-based training. Dutch ROCs are better described as the senior training partner, with firms as junior partners providing internships – and the work-based component of apprenticeship. Nevertheless, there are at least two crucial differences with their American/Wisconsin counterparts. First, while the schools may be senior training partner in the Netherlands, and while state policies have intended to increase their autonomy – the supply of VET is consciously limited to particular tracks, for which binding sets of skills standards are developed by the LOBs/KBBs in which they have to cooperate with the social partners. This

by definition limits them in their entrepreneurship relative to their American counterparts. In addition, the role of the Dutch state (i.e. the Department of Education) provides for a permanently different playing field from the WTCS, where under the supervision of an independent board the association of colleges themselves governs their sector.

The different roles of schools within the three national VET systems are an indication of broader differences in markets for intermediate skills. Closer scrutiny in an historical analysis might, however, reveal that previous choices in the institutionalization of schools may have helped these markets to develop in their distinct fashions they way they did.

4. Conclusion: different hands – and different flexicurity pathways.

Governance regimes for VET consist of much more than states and their VET legislation and related policies. At the very least, an effective analysis of VET governance regimes considers at least four potentially equivalent coordinating mechanisms: market mechanisms, hierarchies, states, and associational governance.

For states, the consequence of their lack of autonomy in unilaterally defining an effective governance regime translates into the notion that there is not *one* identical invisible hand that governs VET markets in a similar fashion in each and every region and sector. There are 'different hands' that govern (cf. Van Lieshout, 2008). The hand that governs actual markets for intermediate skills is a specific combination of the four aforementioned governance mechanisms. Similar state policies can lead to distinctly different results because of differences in the role of the other governance mechanisms, and vice versa.

This is one important reason why we have not used single governance mechanisms as labels to identify national governance regimes. Tempting as it may appear to label the German apprenticeship governance regime as associational because associational governance does play a pronounced role in it, it runs the risk of being misinterpreted to imply that the other governance mechanisms are less important. But as we have analyzed, the role of firms as a governance mechanism is probably even more crucial to understand that German regime. And the distinct roles of firms and associational governance as governance mechanism do not eliminate the role of market mechanisms, but may strengthen them, since the result is a highly competitive rank-order tournament for the best apprenticeship positions and the best apprentices.

Alternatively, one might be tempted to label the Dutch regime as a school-based regime. While the regime is certainly more school-based than its German counterpart, work-based learning and therefore the firm as a governance regime play a major role for a significant minority of Dutch VET tracks, and a significant minor role in the form of internship in the majority of tracks. Associational governance in the Netherlands also plays a prominent role, and the fact that the scope of associational skills standards systems has been expanded to cover (primarily) school-based track is an interesting innovation.

Both Germany and the Netherlands have governance regimes where the four coordination mechanisms all play an important role; the difference is in the particular mix of those governance regimes, and their interaction. With the U.S., one of the four governance mechanisms, associational governance, is less developed than in Germany or the Netherlands. Even adult and youth apprenticeship do not involve employer's associations and unions as prominently, with the notable exception of the

construction sector. With the underdevelopment of VET in high schools, the American regime is firm-based as in Germany; the crucial difference is that of an unorganized and an organized labour market. But, in effect, the key part of that difference is that German youth will enter into a multi-year contract with a single firm that is accompanied by a formal training plan. American youth that do not go to higher education will typically have had two or three subsequent semi-skilled jobs over a similar period, with some informal training, and possibly a course or two at a two-year college. Therefore, one can hardly label the American regime as 'hierarchical', since German firms typically play a more substantial role for a longer period in training individual young persons.

National states, then, do not have a serious other option than to go their own way in developing their market for intermediate skills. International comparisons can help to identify alternative ways on how such markets can work, and inspire ideas for reform at home. The idea to straightforwardly copy one or the other aspect of another countries' governance regime, however, will seldom lead to similar results. Rather than straightforward copying of such institutional arrangements, international comparative work can result in new questions that can shed a new light on the strengths, weaknesses and peculiarities of one's own market for intermediate skills. And the same has been argued toward European flexicurity strategies: national systems – EU countries – are also pursuing their specific track, based their on past developments and particular institutional settings and responses (cf. European Expert Group on Flexicurity, 2007; Commission of the European Communities, 2007).

Moving forward, our biggest shared challenge for a flexicurity strategy towards skills acquisition continues to lie in coming up with ways to make substantial retraining an affordable and attractive option for workers beyond their twenties. For as attractive as (for instance) the German apprenticeship system remains when it comes to institutionalizing initial vocational education and training: its success may unintentionally help explain why older German workers have a hard time switching careers later on. When most firms predominantly recruit from an apprenticeship system where low apprenticeship wages hamper extensive participation of older unemployed, the latter remain on the outside looking in. And Europe will need to include these unemployed into the labour market sooner rather than later.

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¹ The QWERTY layout of typewriters and keyboards is the celebrated example of a Pareto-inefficient equilibrium outcome: we all have come to use it, though better layouts were available (David, 1985).

² Note, however, that a closer look at, for instance, daily operations of an association, such as a union, may reveal that it actually operates along these same lines as separately institutionalized collective and corporate actors.

³ Of course, it is the 'real' situation (as perceived by a hypothetical fully informed observer with unlimited computational capabilities) and not a perception thereof that codetermines the *outcome* and *payoffs* of the actions chosen (cf. Mayntz & Scharpf, 1995: 58-60).

⁴ Individuals often assume several roles on behalf of different reference units. Normally, it will be clear on whose behalf they are acting, but there may be situations where they may evaluate actions from the perspective of more than one reference unit (Scharpf, 1997: 61).

⁵ Cf. Van Lieshout (1996b) for an extensive comparison of the German and Wisconsin apprenticeship regimes.

⁶ Of course, unions were certainly not the only advocates for a general change in this direction, as both employers' associations themselves and independent research from the BIBB pointed in a similar direction. But employers' associations in this process may have to deal with factions among their constituency wanting to preserve a particular training occupation.

⁷ For an extensive argumentation: compare Van Lieshout (1999a). It points out the shortcomings of an attempt to analyze the Dutch market for intermediate skills as such.

⁸ And, for that matter, the Japanese. Cf. Van Lieshout, 1997a: 45.