

Who Will Serve? Labour Markets and Military Personnel Policy

By Lindsay Cohn

Militaries, like businesses, seem to operate under enormous pressure to converge on a “best practice” model (Kester, 1996 ; Streeck, 1996). They compete with each other, cooperate with each other, learn from one another, and in many cases form a transnational and historical professional community, all of which tend to encourage convergence (Rosen, 1995, p.15 *sq* ; Farrell, 2002 ; Goldman, 2002 ; Stone, 2002, p.189). Since at least the early 20th century, militaries in developed States have been organized deliberately along similar lines (Farrell, 2002; Stone, 2002, p.189).¹ Despite these factors encouraging convergence, certain differences in personnel practices appear to be remarkably tenacious even among militaries that engage in consistent and close cooperation (Moskos, Williams & Segal, 1999 ; Nolte, 2003 ; Gareis & vom Hagen, 2004 ; Gilroy & Williams, 2007). What explains this stubborn diversity, and what practical implications does it have?

A similar puzzle in the comparative political economy of developed States has been under discussion for decades : why, despite the pressures of globalization and classical economic arguments about unique optimum arrangements, do countries persist in organizing their firms and labour differently from one another (Dore, 1973; Crouch & Streeck, 1997; Hall & Soskice, 2001; Martin & Thelen, 2007) ? One group of scholars argues that the difference is part of a larger variation in clusters of institutions. This school of thought, now known as “Varieties of Capitalism” (Hall & Soskice, 2001), holds that a number of institutions including those of education, finance, and industrial relations are complementary and mutually reinforcing (Crouch & Streeck, 1997 ; Culpepper & Finegold, 1999 ; Dore, 2000 ; Hall & Soskice, 2001 ; Thelen, 2004). Due to their interlocking relationships, these clusters tend to constitute stable equilibria. The variation in firm organization is tied in with variation in a number of other political and economic institutions, and is likely an almost unintended result of the forms which political mobilization and coalition formation took in different States (Iversen & Soskice, 2001 ; Gourevitch & Shinn, 2005 ; Iversen & Soskice, 2006). These arguments point to the importance of institutional interaction within a State’s economy – and how difficult it is for any given firm or institution to engage in off-equilibrium behaviour.

¹ Militaries are generally organized into services and branches (e.g. infantry), units (e.g. brigade), roles (e.g. non-commissioned officer), and ranks (e.g. sergeant). For accounts of the evolution of military organization, the reader may find Andreski’s *Military Organization and Society*, Howard’s *War in European History*, Parker’s *The Military Revolution*, or van Creveld’s *Technology and War* useful.

Volunteer-based militaries must recruit on the same labour market as other firms, a fact which raises the possibility that the above-mentioned arguments for military convergence are both correct and misleading. Correct, because militaries do share common manpower requirements ; misleading because similar needs will not necessarily lead to similar practice if the context differs. How a military achieves its manpower needs will depend in part on how the surrounding national economy produces and manages manpower. If every State's economy were structured the same way, then it might be reasonable to expect military practice to be the same everywhere. However, there is diversity even among developed economies, and military practice may be expected to differ accordingly. As States in Europe and the post-Soviet sphere move away from conscription and towards volunteer militaries (Gilroy & Williams, 2007), and as volunteer-based militaries in States such as the USA and the UK come under greater recruiting pressure, it becomes more important to understand what factors affect military manpower management within and across States.

I argue that military human resources management will be shaped by the interaction of the military's functionally-derived personnel needs with the human resources system dominating in the surrounding economy. More specifically, a country's labour market structure, particularly market flexibility (turnover) and the provision and significance of skills training and certification, will have a systematic effect on the ways the military assigns, trains, and separates its personnel. These patterns of personnel management influence recruiting and retention – both quality and quantity – because they define the cost-benefit balances an individual faces when choosing to join or leave the military (Rosen, 1992, p.227 *sq*). In short, they determine to a large extent who will serve. This argument does not deny the impact of cyclical economic factors such as unemployment, but States rather that structural factors will influence the context in which cyclical and other factors can take effect.

This theoretical puzzle is relevant to scholars of both political economy and security studies. The insights of political economy can be extended fruitfully beyond the private sector, and many explanations relying on organization theory could benefit from a better understanding of how human resources dynamics work in government agencies. Certain strands of Comparative Political Economy have strong potential to drive new understanding of political development by establishing the linkages among economic and political institutions. Students of security issues, on the other hand, recognize that who chooses to serve in the military and how service-members' career behaviour is incentivized have implications for a number of domestic and international political problems (Rosen, 1991 ; Brooks and Stanley, 2007). It can affect the political-military interface at the foreign-policy-making level, the organizational and operational character of the military, the way that doctrinal development and budgeting requests emerge, and relations between the military and general society – especially public opinion about the military.

Turnover, Training, and Institutions

In any economy, the production of goods and services requires employees to have certain skill sets, and requires firms to have a certain mix of skills among their employees. The acquisition of skills, however, is not costless, and the literature on Human Capital has explored various possible modes of skill production and its relation to compensation and job tenure. Becker (1975) indicates that under the conditions of classical free market economics, firms will not engage in skills training which could be of value to other firms.² This yields an equilibrium situation of high worker turnover and low firm-based vocational skills training. A number of later scholars tackling the puzzle of why some firms do in fact provide vocational skills training argue that, under less-than-pure market conditions, training can be rational for firms (Greenwald, 1986 ; Stevens, 1994 ; Acemoglu & Pischke, 1998). Acemoglu and Pischke (1998) demonstrate that there are in fact two possible turnover-training equilibria: one where – as Becker predicted – turnover is high and vocational skills training is low, yielding a mobile workforce where the majority of workers rely on their general ability to learn on the job rather than on a particular set of vocational skills, and one where turnover is low (most likely due to employment regulations) and firms engage in vocational skills training, yielding a highly-skilled but less fungible work force.

These equilibria also affect the way in which firm-specific training is handled. Firm-specific skills are those which increase the worker's value to the training firm, but not to any other firm (for example, firm-internal operating procedures or military combat skills). Usually, the portion of any given employee's skills that is truly firm-specific is small. As that proportion grows, however, so do the incentives of both firm and employee to continue the employment relationship (Cantor, 1990 ; Jaggia & Thakor, 1994, p.283 *sq.*). Firms in low-turnover situations can better afford to train in firm-specific skills, and workers can better afford to devote time to them. Firms in high-turnover situations will find the cost of hiring and training a replacement for a specifically-skilled worker high, and will thus prefer modes of production which do not require high levels of firm-specific skills (Becker, 1975 ; *cf.* also Mincer, 1962, p.69 ; Stevens, 1994, p.555 *sq.*). For “firms” like militaries, whose modes of production are relatively inflexible and who cannot relocate, it is important to reduce the rate of turnover in non-market ways, when the surrounding equilibrium is adverse.

In sum, according to the theoretical literature, the turnover rate, due to political choices about labour regulation, is inversely related to levels of firm-based vocational and firm-specific skills training. Furthermore, the rate of labour turnover appears to drive firm decisions

² Becker divides skills into those which raise the worker's marginal productivity by an equal amount for all potential employers (general skills) and those which raise the worker's marginal productivity only in the training firm (firm-specific skills). Subsequent scholars (esp. Stevens, 1994) have identified skills which are neither perfectly general nor perfectly specific, i.e. vocational skills, which may be equally useful to a large but finite number of firms. I use the terms “vocational” or “transferable” to refer to skills such as metalworking or computer programming ; where I use the term “general”, it refers to skills such as literacy, numeracy, or self-discipline.

on whether to provide vocational training (Acemoglu & Pischke, 1998) and whether to pursue production models requiring high firm specificity (Finegold & Soskice, 1988, p.28; Jaggia & Thakor, 1994; Estevez-Abe *et al.*, 2001, p.148 *sq.*, p.162 *sq.*).³ The inverse relationship is important because, as will be discussed below, militaries need moderate levels of turnover as well as high levels of vocational and firm-specific training. The origin of the cycle in general rates of turnover helps to explain why the military finds itself constrained to adapt to its surroundings, rather than the other way around.

The “Varieties of Capitalism” school, focusing on the empirical differences between developed State economies, has found evidence of both of Acemoglu and Pischke’s training-turnover equilibria. It has named them “Liberal or Anglo-Saxon” Market Economies (high turnover/low skills training) and variously “Rhenish”, “Organized”, or “Coordinated Market Economies” (low turnover/high skills training) (Dore, 1973; Finegold & Soskice, 1988; Albert, 1993; Berger & Dore, 1996; Crouch & Streeck, 1997; Crouch *et al.*, 1999; Culpepper & Finegold, 1999; Dore, 2000; Hall & Soskice, 2001; Thelen, 2004). Mutually-supporting institutions such as the school system, finance system, and labour relations system appear to cluster certain forms with a given skills-turnover equilibrium. Furthermore, there is some evidence that policy directed at regulating the rate of turnover is more fundamental to this divergence than, for example, factor endowment (Iversen & Soskice, 2001; Iversen & Soskice, 2006; Gourevitch & Shinn, 2005). Of course, there is still diversity within these equilibrium groups – especially across sectors and among the “coordinated” markets, as the modes of coordination differ – but broadly speaking most developed market economies fall into one group or the other. The “Liberal Market Economies” are made up of States with strong Anglo-Saxon heritage or influence (UK, USA, Ireland, Australia, Canada); the “Coordinated Market Economies” are typified by Germany, Japan, the Netherlands, and the Scandinavian States.⁴

Hall and Soskice and their contributors argue that it is this institutional variation, not simply factor endowment, which forms the basis for comparative advantage. Businesses with certain skills and turnover requirements will thrive or fail depending on whether national institutions support that skills/turnover combination (Finegold & Soskice, 1988; Streeck, 1996, p.144 *sq.*; Hall & Soskice, 2001, p.26 *sq.*; Thelen, 2004). Their argument indicates that a firm which, like the military, needs rates of training or turnover which do not accord with the institutional support structure, will be unable to meet those needs efficiently. Thus certain types of businesses ought to thrive in one environment, but not in the other (Hall & Soskice, 2001, Figures 1.5 and 1.6, pp.42-43). Militaries, which do not generally go bankrupt from inefficiency, ought to attempt to adapt as far as is compatible with their needs.

³ Although the turnover-training relationship is clearly self-reinforcing, the literature implies that turnover rates are more basic than skills training. Cf. Becker, 1975, p.29; Miyazaki, 1977, p.408; Greenwald 1986, p.330 *sq.*; Stevens 1994, p.541 *sq.*

⁴ There are potentially significant variations in modes of coordination among Japan, Germany and the Netherlands, France, and the Scandinavian countries (Hall & Soskice, 2001; Martin & Thelen, 2007, p.3 *sq.*). In this paper, I concentrate on Germany and the Netherlands as a “most similar” comparison.

Military Needs: Training and Turnover

When Huntington introduced the concept of a functional imperative, he used it to describe an essential link between the danger, uncertainty, and violence of the military mission and the courage, discipline, and self-restraint that mission demanded of military officers (Huntington, 1957, p.2 *sq.*, p.59 *sq.*). Charles Moskos, in his criticism of the “Institutional/Occupational” shift, was in a sense claiming that the military mission places a functional imperative not just on the military’s culture, but also on its organizational and personnel structure (Moskos & Wood, 1988). Both were implying that the military needed to be different from a business. However, the micro-links constituting this functional imperative, or “need to be different”, remain poorly articulated. I posit that the nature of the military mission requires both a wide range and significant numbers of vocationally- and firm-specifically-skilled workers, and moderate to high turnover – aspects which appear to belong to different labour equilibria.

Military effectiveness, like firm success, depends on how well employees can accomplish the required tasks. Most firms concentrate on producing one type of product or service, outsourcing any aspects of production which would detract from their efficiency. Militaries, on the other hand, value systems interoperability and reliability under stress and hence prefer to maintain control over a significant part of the “chain of production” under a single organizational hierarchy (*cf.* Coase, 1937 ; Williamson, 1985 ; Kester, 1996, p.118 *sq.*). In order to avoid potentially exorbitant transaction costs, they incorporate a large range of functions in a way that most firms would not. In effect, militaries are self-sustaining societies. To do the tasks required, they need personnel who collectively provide a wide spectrum of skills (Williams, 2004, p.12 *sq.*). Militaries must either recruit people who already possess these skills, or recruit people capable of reaching those skill levels and provide them with training.⁵ Although many of these skills are useful on the civilian labour market, some of them are purely firm-specific to the military (e.g. infantry rifleman), and all military personnel regardless of specialty will be obliged to dedicate a significant portion of their work experience and skills profiles to firm-specific tasks such as military discipline and weapons handling.

The nature of military activity also places demands on the physical fitness of personnel. Their strength, endurance, reaction time, and general health are important to the efficiency and success of their missions, whether these are combat, peacekeeping, or humanitarian assistance operations (Cohen, 1985, p.32 and p.87 *sq.* ; Rosen, 1992, p.230 *sq.*). At base, the military’s requirements for relative youth and physical fitness constitute preparedness for the unpredictable and potentially urgent. Thus, while militaries maintain

⁵ Mincer (1989, p.32) notes that more highly-educated personnel (secondary school certification and above) are more efficient than less-educated personnel, and the newer the technology or equipment, the greater the efficiency gains of using educated personnel. Higher-“tech” militaries should always prefer more educated people, but these are also more expensive to recruit.

some flexibility on age limits in order to expand their manpower bases when there is urgent need, most of the time they place strict limits on age and length of time in service or rank, in order to funnel older personnel out.⁶ While it is open to discussion whether this focus on turnover is absolutely necessary, developed States' militaries generally act as though it is.

Militaries favour a hierarchical structure because it improves decisive and coordinated decision-making as well as cooperation among units – factors which can be crucial to military mission success. Such a structure requires large numbers of low-ranking personnel, and ever-fewer numbers of higher-ranking personnel. In order to maintain a balanced profile of fitness, rank, and experience, militaries must encourage moderate to high levels of turnover in most specialties (Rosen, 1992, p.232 *sq*). Militaries could use an up-or-out system in which members are shed as they fail to advance, get too unfit for the rank they have reached, or become redundant – this safeguards fitness and streamlined rank profiles at the expense of experience. Another option is mandatory retirement ages, which are a compromise between fitness and experience at the expense of a streamlined rank profile and more limited performance incentives (as promotion becomes rarer).⁷ A third option is lifetime employment, which maintains experience at the expense of both fitness and rank profiles, as well as the absolute cost of keeping many people on the rolls who are no longer needed (Cf. Rosen, 1992, p.232 *sq* ; Dore, 1996, p.13 *sq*). The third option is clearly sub-optimal ; in the other two cases, large numbers of personnel will either reach unfitness or become redundant well before retirement age. This need for turnover sets up the difficulty with a need for firm-specific and vocational training.

Theory

The above review of the literature indicates that the military's twin requirements of vocational/ firm-specific skills training and turnover are in economic tension with each other, and that neither standard institutional equilibrium will yield what the military needs. Thus we should expect that militaries that value effectiveness and therefore pursue both training and turnover will have difficulty functioning with perfect economy, will not look exactly like firms in either equilibrium (which are following the equilibrium pattern of high turnover/low training or vice versa), and will not look exactly like one another, as they will attempt to utilize the advantages of their surrounding markets while counteracting their less helpful tendencies.

⁶ Retirement with benefits is allowed in some cases as early as 12 years of service (Ireland), and in most cases after only 16 to 20 years of service, when an individual might be in his or her late 30s or early 40s. See e.g. Queen's Regulations (QR) Ch. 9, esp. 9.098a, 9.307, 9.413 ; UK Pay Warrant, 1964, clause 246 ; Defence Forces Regulations (DFR) A 10 Part I Para.s 10, 11c, DFR A15 Part III para 14 ; 10 U.S.C. Subpart A Part II ; AR 600-8-24 "Officer Transfers and Discharges" 6-13(a)(3), 6-25(a)(c)(d), and 6-27 ; Soldatengesetz (SG) §40, §45; Soldatenlaufbahnverordnung (SLV) ; Atsma, 2005 ; Algemeen militair ambtenarenreglement (AMAR), 39.

⁷ Interview Cooney, 2006.

Military practice strives toward a functional ideal but is constrained by its economic environment. This means that militaries' HR strategies for achieving their similar personnel needs will vary systematically and predictably by national market economic equilibrium, because that defines the levels of skills and labour turnover available to the employer and expected by the worker. The independent variable is "Labour Market Type", measured by "Flexibility" (the general level of labour turnover), "Training" (whether skills training is self-provided or primarily firm-provided), and "Contracting" (whether work contracts are generally short-term and flexible or long-term and secure). "Liberal Market Economies" (LME) are characterized by high flexibility, self-provided training, and short-term, flexible contracts. "Coordinated Market Economies" (CME) are characterized by low flexibility, firm-provided (or publicly provided) training, and the general prevalence of long-term, secure contracts (Crouch & Streeck 1997 ; Culpepper & Finegold 1999 ; Hall & Soskice 2001). Although this paper tests the theory only on well-established representatives of each economic type, there is no reason other market types could not be characterized and analyzed using these factors. The dependent variables (HR strategies) are "Military Occupational Specialty Assignment" (how a military assigns people to different jobs), "Skills Training" (whether the military trains only in the skills it requires, or provides "extra" training), and "Terms of Contract" (whether the military offers short- or long-term, flexible or secure contracts). These all affect the individual's calculation about joining, staying in, or leaving the military, and are thus key factors in recruiting, retention, organizational character, and organizational effectiveness (Rosen, 1992 ; Gilroy & Williams, 2007, p.2).

The mechanism is essentially a rational choice strategy, in which the employer sets up its incentive structures in anticipation of the employees' expectations and the employer's needs. If employee expectations differ from State to State because of different economic equilibria, and employer needs are relatively constant, then the employers will have to use different incentive structures depending on the economic equilibrium in which they find themselves.

In an LME (high-turnover/low-skills) context, a "normal" firm would spot-hire on a contractual basis for the skills and positions it needed filled, and would generally either expect the employee not to have vocational skills and to learn on the job, or expect the employee to have invested his own resources in acquiring vocational skills (Finegold & Soskice, 1988, p.26 *sq.*). Militaries, however, also want people to acquire a large basket of firm-specific skills, which they can do at an acceptable cost to both parties only if the employee remains with the military for at least a medium-term period (Cantor 1990, p.1; Jaggia & Thakor, 1994), so that at-will employment is sub-optimal for both parties. Militaries as public institutions are also budget-constrained and may not be able to offer compensation high enough to induce individuals who have invested in their own skills training to join. Thus, militaries located where Labour Market Flexibility is high, Training is low, and Contracting is generally short-term and flexible will have to subsidize Skills Training in a way that firms do not, and will

have to have less flexible Terms of Contract in order to make firm-specific skills-acquisition efficient. Militaries located in these LMEs are unlikely to have difficulty in shedding people from the organization, precisely because there is a general expectation that one can and will change jobs multiple times during the working lifetime and because those individuals for whom the military has subsidized vocational skills training (or higher education) will then be able to find higher-paying jobs in the private sector. Thus the military will not be constrained to go to significant extra expense to make it possible for people to get civilian jobs. In order to keep turnover somewhat lower than usual, however (i.e. at a moderate rather than high level), the military will have to make leaving somewhat more difficult than is usual in an at-will environment.

In a CME (low-turnover/ high-skills equilibrium), on the other hand, most young people with a decent secondary school education would expect to be hired on a probationary training contract, with the likelihood of an indefinite contract once training was over (Crouch & Streeck, 1997; Culpepper & Finegold, 1999).⁸ While the military does promise to train these young people, it cannot promise them indefinite contracts. This is problematic for two reasons. First, it makes the military a less attractive source of vocational training than any other firm would be. This is not only because of the added inconveniences of military life, but because of the limited career options and the significant amount of time which is likely to be spent on firm-specific skills, making individuals less competitive on the labour market than their peers who have spent most of their time on vocational skills. Second, it means that most people who join the military will have a strong desire to stay, and will therefore require help and incentives to leave: the military will have to tailor policies and expend resources just to make it feasible for people to leave.

Hypotheses

Occupational specialty assignment is the way the military distributes human resources through the organization to facilitate total capability. The military would prefer to control occupational assignment so that it can ensure that crucial and less-popular specialties are staffed. Recruits, however, will always prefer to have more rather than less control over their job assignments, and there may be a value point at which the recruit prefers not to be employed rather than to be employed with an undesirable specialty. If recruits' preferences for control were normally distributed around a value below that tipping point, then militaries could vary their policy on recruit choice depending on the difficulty of recruitment (more recruit choice should improve recruitment). However, if there are conditions in a country which cause all recruits to have a high value for specialty choice, militaries in those contexts will be constrained to offer choice as a constant in order to attain recruiting success even roughly equivalent to lower-value contexts.

⁸ Firms also generally hire some employees on a temporary basis to do unskilled work. These individuals receive no training and tend to remain in the unskilled high-turnover sub-class.

As noted above, young people in high-turnover environments expect both to have to change jobs and generally to learn each job as they do it rather than receiving formalized training. They therefore would like to have some choice about what skills they learn, but are likely to place more value on having some form of employment than on choosing what form that employment takes. In low-turnover environments, on the other hand, most young people engage in specific vocational training at the secondary level, and the type of initial training and employment frequently determines what that person will do for the rest of his or her life (Dore, 1973 ; Crouch & Streeck, 1997 ; Van der Linden & Van der Velden, 1998, esp. p.118 ; Culpepper & Finegold, 1999). Young people in such a situation will place a consistently high value on maintaining control over what kind of skills training they receive.

Hypothesis 1: Militaries in CMEs should be constrained to offer recruits control over the job assignment process, because those recruits have a very high stake in the kind of training and job experience they get. Militaries in LMEs, on the other hand, may offer recruits a choice as an incentive to quality recruitment, but will not be constrained to do so.

A second observable implication of the theory relates to the military's provision of vocational skills training *beyond what is necessary to the individual's assigned military function*. Militaries in both contexts will have to provide training for the skills they need their employees to have. However, militaries in LMEs should seek efficiency by providing only that training which is required for a person's military function. Further (unrelated) skills training should be available as a reward for good service or a means of retaining high-value personnel, but access to such training should be limited and competitive, as the LME military has little need to provide specific incentives and resources to get people to leave the service. Their resources are better spent on targeted incentives for desirable personnel to stay.

It has already been noted that CME militaries are likely to be less attractive trainer-employers than regular firms, because they cannot hold out the standard promises of probationary-training-to-permanent-contract progression. If the military is to have any hope of attracting mid- to high-quality people, it must convince them at the outset that they will be able to find work if the military cannot keep them on. While CME militaries can take advantage of the unskilled labour market to provide short-term unskilled labour at the lowest enlisted ranks, they will have to train anyone they would like to retain for longer or offer a higher rank, regardless of whether that person's military function requires vocational training.

Hypothesis 2 : Beyond that training necessary for an individual's military function, CME militaries will offer civilian vocational training to all service-members except those on the shortest contract terms ; LME militaries will offer such additional vocational training only on a limited and competitive basis.

This discussion of training raises questions about contract terms. As mentioned above, LME work contracts allow for either employer or employee to terminate the employment

relationship at will (with some provision for notice periods or severance pay). In CMEs, contracts are either temporary (for a specified period), probationary, or indefinite. Temporary contracts usually do not involve the promise of training and are always limited by law such that a company may not employ a particular person over and over again on a temporary contract. Usually the employee must either be released from employment after a short period or a certain number of contract renewals, or offered an indefinite contract. Probationary contracts are also temporary, but generally involve training and an expectation that indefinite employment is being considered. Indefinite contracts mean that the individual may choose to leave his or her employment (conditioned upon a significant notice period), but it is very difficult for the employer to terminate the person's employment.

These general practices would result in LME militaries in personnel unpredictability, difficulty training and preparing for operations, and difficulty retaining quality personnel, and in CME militaries in bloat, distorted age and rank profiles, lack of career advancement, and overwhelming personnel costs. Both militaries must alter the way job contracting is normally done. Militaries in LME contexts will need to introduce more structure into their contracts, allowing both the organization and the individual less choice than usual, and militaries in CME contexts will need to maintain a recognizable structure, but alter it to allow the organization to terminate the employment relationship with more freedom than is usual.

Hypothesis 3 : In CMEs, militaries ought to be able to offer fixed-term (i.e. temporary) contracts for longer periods than private-sector employers can.

Hypothesis 4: In LMEs, militaries will offer greater job security (less opportunity for firing or “involuntary separation”) than private-sector employers generally do.

Alternative Explanations

My explanation stands in contrast to two main alternative arguments. The first comprises all variables believed to lead to increased similarity or convergence among militaries. This includes the influences of functional similarity and competition, and homogenizing factors such as transnational contacts and emulation. The argument from functional similarity/competition is premised on the ideas that there is one best way to fight wars, all militaries are mainly war-fighting tools, and therefore all modern militaries will be working towards that ideal. Competition is expected to force all militaries to place supreme value on military success, ignore structural market imperatives, focus on their functional needs, and manage personnel according to a (presumed) single objective best practice (Goldman, 2002, p.41 *sq*; Farrell, 2002, pp.69-70). The emulation or diffusion argument produces an expectation that militaries or governments seeking political legitimacy will model themselves on their ideal regardless of whether this is functionally necessary or not (Goldman, 2002).

The second alternative explanation is Forster's argument that mission posture determines military organization (Forster, 2006). This argument denies the functional

similarity assumption that all militaries seek to do the same thing. Forster indicates that militaries focused on deployability and high-intensity (“expeditionary”) operations will behave differently from those focused on territorial defence or low-intensity peacekeeping operations (“territorial-defence/ late modern”). His explanation subsumes arguments focusing on States’ political attitudes toward combat. Where appropriate, this paper tests hypotheses yielded by these alternative explanations.

One alternative explanation I do not test explicitly is the argument that personnel policies are driven by cultural factors. There are three possible “culture” arguments to be made: an organizational culture argument, a national security culture argument, or a national culture argument. An organizational culture argument would claim that differences in the ways militaries perceive their roles and missions would affect how they assign people to jobs, offer training, and/or structure contracts. The main problem with this argument is that it would be difficult to show that organizational culture preceded and was independent of personnel practices. My argument that military personnel practices are driven by the national economic system as opposed to the military organizational culture is both plausible and less susceptible to the charge of endogeneity.

The national security culture argument – that a State’s attitude towards the use of military force in international relations will determine its military structure – is essentially the same as the mission posture alternative and will thus be tested where possible. The national culture argument is the strongest potential alternative, as it would suggest an omitted variable bias in my proposed explanation: that some cultural element was driving both military and private sector personnel practices. This argument accepts and even assumes that the cultural and economic indicators co-vary, and as such it becomes difficult to claim which one is the root cause. There is a growing body of research indicating that cultural, political, and economic structures may have causal or constitutive linkages (Dore, 1973; Dore, 2000; Hall & Soskice, 2001, p.12 *sq* ; Iversen & Soskice, 2001; Gourevitch, 2003; Gourevitch & Shinn, 2005; Iversen & Soskice, 2006; *cf.* also Esping-Andersen, 1990), but nothing that indicates that economic practices are a mere epiphenomenon of independent cultural understandings. Furthermore, a national culture argument would fail to explain why military practices sometimes differed from civilian practices, but an economic rationality mechanism accounts for it. The contribution of this paper is not to show that culture does not matter, but rather to articulate and test a clear rational mechanism. That culture may have created and may reinforce the differences in economic structures does not take away from the explanatory value or policy relevance of economic rationality.

The theory will have little explanatory power in States where there is no functioning market economy, and will not be able to explain or predict human resources practices in countries where the military is shielded from the market by use of mass conscription. Conscription is a rational response when security needs appear to outstrip what the market can provide (Cohen 1985, p.25 *sq* ; Warner & Negrusa, 2006; CBO, 2007, p.9), and as such is

compatible with the theory presented here. Mass conscription is, however, a concrete obstacle for testing such a theory, precisely because it is designed to interfere with normal economic behaviour. My case selection takes this into account, but it is worthwhile to note that, up until the end of the Cold War, the distinction between State militaries which operated on a principle of voluntarism and those that operated on a principle of institutional conscription fell out almost exactly along the LME-CME divide.⁹ It would be overreaching to claim that the economic categories I use to explain specific personnel policies also explain the type of conscription a State chooses to use. It does, however, seem reasonable to think that whatever leads a society to prefer low or high rates of State regulation could also lead it to prefer low or high rates of State control with respect to military service.¹⁰ It is also reasonable to believe that economic factors may play a direct role. Ross notes that countries with a larger starting deadweight tax loss (e.g. from extensive social programs, characteristic of CMEs) “*will find a volunteer system more costly than a nation with a low marginal deadweight loss*” (Ross, 1994, p.118 sq). Ross also notes that “*the more heterogeneous the reservation wages of those eligible for military service [wage heterogeneity being generally greater in LMEs], the greater the advantage of the volunteer system*” (Ross, 1994, p.120). If – as I argue – there are systematic national differences in the ways that short- to medium-term military service affect the economic life of the individual, that ought to contribute to the economic and therefore political calculus of whether and how to implement conscription (Ross, 1994, p.130). In the meantime, understanding the dynamics of military manpower in volunteer systems is an important theoretical and practical question in its own right.

Design and Definitions

Because this argument depends on a market mechanism, initial development and testing should take place within the small domain of countries whose markets have been extensively studied and specified. Should the theory demonstrate purchase, it can be applied to other economies as their markets are better understood.

As this is a qualitative study, case selection is important for the robustness of the findings. Initially, I chose four countries, in two groups of two. Each group of two was chosen for “most similar” criteria, and the two pairs were chosen to be “most different” from one another on the relevant measures. The United States and the United Kingdom are generally considered the two best examples of high-turnover/low-skill economies (Dore, 1973; Finegold & Soskice, 1988; Dore, 2000; Hall & Soskice, 2001), and Germany is usually considered the archetypal high-skills/low-turnover economy (Finegold & Soskice, 1988; Crouch & Streeck,

⁹ Voluntarist States (LMEs, e.g. the UK) use conscription as a temporary measure to produce extra manpower for a specific threat or conflict, often using conscription deliberately to induce higher rates of voluntarism (Flynn 1998, p.5). Institutional States (CMEs, e.g. Germany) traditionally see conscription as a total socio-political institution and simply adjust selection criteria as manpower needs fluctuate.

¹⁰ There are other co-varying factors which may also contribute to both the economic and the military distinction, e.g. maritime vs. continental strategic orientation.

1997; Culpepper & Finegold, 1999; Dore, 2000; Hall & Soskice, 2001).¹¹ The Dutch economy is structured very much like the German, and makes a good “most similar” case (Auer, 2000; Berkowitz & Müller-Bonanni, 2006).¹² In order to investigate the mission posture argument, I included Ireland – also a good example of the high-turnover/low-skills economy (Finley *et al.*, 1998; Auer, 2000; Hall & Soskice, 2001), but with a mission posture similar to that of Germany and the Netherlands.¹³ This group of countries allowed me to see whether similar countries behaved similarly, different countries behaved differently, or whether there was no pattern apparent at all (*cf.* Lijphart, 1971, pp.686-691). This group also constitutes a hard case for my argument *vs.* the convergence argument, as all five of these countries are bound to one another by strong institutional ties – NATO and/or the EU – and are thus under significant convergence pressure. The argument can be extended to other OECD countries, and the specific variables I develop should be easy to identify in other market types. I cover all ranks, but land combat forces only.¹⁴ These five militaries do not differ appreciably in terms of military leadership style – an aspect of organizational culture which might have an impact on personnel needs.¹⁵

I analyzed military codes and regulations for each country and carried out extensive structured and semi-structured interviews with military personnel, defence civil servants, and

¹¹ Conscription in Germany was phased out in 2011, after data collection for this article was already completed. Even during the period of data collection, however, conscription in Germany had become so attenuated that military service there was already practically voluntary (Haltiner, 1999, p.23 *sq* ; Kuemmel, 2007, p.203 *sq* ; Forster, 2006, p.71, note 2).

¹² The Netherlands suspended conscription in 1993 and conscripts were phased out of service by the end of 1996.

¹³ Forster classes Ireland as “post-neutral” and Germany and the Netherlands as “late modern” (p.47 *sq*). The distinction he makes between “late modern” and “post-neutral” rests primarily on the extent of a country’s involvement in international peacekeeping (p.53), with the former being heavily involved and the latter not. I disagree with Forster’s claim that Ireland is not significantly involved in international peacekeeping (see <http://www.military.ie/overseas/ops/index.htm>), but even if the distinction stands it indicates that Ireland should behave *less* like the US and the UK than Germany and the Netherlands do.

¹⁴ All evidence relates solely to Armies plus the US Marine Corps, and covers officers, warrant officers, non-commissioned officers, and other enlisted personnel. Navies and Air Forces were excluded. Limiting the branches under study was necessary for manageability. The focus on land combat forces is appropriate for two reasons : first, armies are nearly always the largest of the military branches and under the most recruiting pressure, thus also where an understanding of employment and career incentives would be most useful. Second, land combat forces (including the US Marines) generally require personnel to have a larger basket of firm-specific “military” skills (as opposed to vocational/technical skills) than sea or air forces, and are therefore the most likely to struggle with balancing personnel quality and quantity. A useful further test of this theory would be to produce hypotheses and evidence relating to the specific skills-turnover needs of different services within and across countries.

¹⁵ The German, Dutch, American, and British militaries all rely to a greater or lesser extent on a decentralized leadership style, sometimes called *Auftragstaktik* or Mission Command (Nelsen, 1987). Mission Command has been official US and British Army doctrine since the 1980s (Nelsen, 1987, p.27 *sq* ; US Army Field Manual 100-5, *Operations*, 1982 and 1986 ; author correspondence with Hew Strachan, Professor of Military History, Oxford University, UK, 22 June 2009), arguably has been US Marine Corps Doctrine since the 1940 Small Wars Manual, and there is evidence of a tradition of this leadership style in both militaries going back in the British case to Lord Nelson and the American case to at least the Civil War (Lord, 2003 ; Nelsen, 1987, p.29 *sq*). The Dutch have shown a greater interest in Mission Command (*Opdracht Gerichte Kommandoovering*) in the post-Cold War/ volunteer period and codified it in doctrine (Vogelaar & Kramer, 2000, p.217 *sq*).

civilian experts where available. This allowed me to construct an HR policy profile for each country from about 1990 to 2006, taking into account the possibility that regulations and practice might not be identical. Unfortunately, at the time this study was carried out, it was not possible to get sufficient recruiting, retention, or basic personnel data from all five militaries to test any hypotheses related to outcomes such as the comparative ease of recruiting and retaining “quality” personnel.¹⁶ The theory I propose does produce hypotheses on the recruiting and retention of quality personnel, which can be summarized as follows : militaries in LMEs will (*ceteris paribus*) have less difficulty *recruiting* a high-quality pool of applicants than will those in CMEs, and militaries in CMEs will have less difficulty *retaining* highly-skilled and highly-qualified individuals than those in LMEs. Furthermore, cyclical factors such as unemployment levels should have much larger effects on recruiting and retention in LMEs than in CMEs, as CMEs tend to feature unemployment protection generous enough to make unemployment more attractive than military employment. If such data becomes available in sufficient quantities, a rigorous large-N analysis of recruiting and retention dynamics would be an excellent further test of the theory presented here.

Data problems also made it difficult to measure indicators such as turnover within the military or the distribution of skills training that was not associated with an individual’s military function. This study’s focus on policies rather than outcomes is due largely to the lack of sufficient outcomes data. However, an examination of policies is very useful, as it helps in theory testing and identifying and defining factors for later empirical work.

I do not make direct comparisons of military pay, although pay is an obvious tool for manipulating economic decisions. The primary reason is the lack of basic country-level studies of military and civilian pay structures outside of the US¹⁷ and the difficulty of getting detailed data on other countries, especially as relates to specialty pay and non-monetary compensation such as tax breaks or subsidies.¹⁸ What can be said is that most economic studies of military manpower assume that supply is a function of pay plus recruiting effort (e.g. Warner & Negrusa, 2007, p.85); this is true in an unregulated, spot-market economy such as the US, but less so in a regulated economy where labour decisions have a somewhat longer time horizon. More regulated economies (i.e. low-turnover/high skill equilibria) also tend to have less variance in the income spectrum than do high-turnover economies (Wallerstein, 1999, pp.649-650). Militaries, as public institutions, are likely to be near the average wage and also tend to feature compressed wage scales (Rosen, 1992, p.232 *sq* ; Asch & Warner, 2001,

¹⁶ Of the militaries in question, only the US military collects the relevant data systematically. The other militaries either do not collect such data, or had data going back for less than ten years, which would not have been a long enough period to account for cyclical economic factors. The only way to create sufficient data for a large-N study would be to convince the various ministries of defence of the utility of collecting such data themselves.

¹⁷ A survey of the main journal for this subject, *Defence and Peace Economics*, shows only two or three such non-US studies in the last twenty years.

¹⁸ Dr. Andreas Wagener (Institute of Social Policy, University of Hannover) indicates that there are no academic studies of German military wages because it is a political non-issue (author correspondence, 28-29 June 2009).

p.524; Williams, 2004, p.18 *sq.*¹⁹ This indicates that the difference between military pay and civilian pay in roughly equivalent occupations will be greater in LMEs than in CMEs.²⁰ In the LME context, this produces incentives for those with highly marketable skills to leave the military, and for those with less-marketable skills to stay in as long as possible (*cf.* Williams, 2004, p.6). In the CME context, there is little to be gained or lost by leaving the military. This reinforces the point that retention of skilled personnel will present a much greater problem in LMEs than in CMEs. It also indicates that LME militaries will need to pay attention to the construction of incentives for skilled personnel to stay, while CME militaries ought to concentrate on incentivizing unnecessary personnel to leave.

Results and Discussion

The first hypothesis (H1) indicated that recruits in CME contexts should have more control over their occupational specialty assignments than those in LME contexts, but that LME militaries might use choice as a recruiting incentive. To test this hypothesis, I looked at whether the decision about occupational specialty was made before or after an obligation to military service was incurred, and whether the organization had primary control over that decision, or there was a real negotiation process. In order to see whether practices were responsive to recruiting pressure, I looked at whether they had changed significantly between 1991 (or the end of conscription) and 2006. The alternative explanations would indicate either variation in all countries over time as recruiting pressures went up and down, or a division between the expeditionary militaries and the non-expeditionary, where the expeditionary militaries should be more concerned with military needs (no choice) and the non-expeditionary should be more concerned with social employment practices (choice).

Table 1: *Occupational Specialty Assignment*

	Expected	Actual
UK	No choice, no guarantee	Enlisted : choice guaranteed Officer: some choice, no guarantee
USA	No choice, no guarantee	Enlisted : Army : choice guaranteed* USMC : up to recruiter Officer : no choice, no guarantee
IRL	No choice, no guarantee	Enlisted : no choice, no guarantee Officer : no choice, no guarantee
GER	Choice negotiated and guaranteed	Choice negotiated and guaranteed before obligation for all ranks
NL	Choice negotiated and guaranteed	Choice negotiated and guaranteed before obligation for all ranks

* True for US Army beginning near the end of 2005, due to a period of recruiting difficulty associated with the wars in Iraq and Afghanistan (interview Braga, 23 January 2007).

¹⁹ Author correspondence with Wagener, 28-29 June 2009.

²⁰ This also means that militaries will overpay for low-skilled personnel (*cf.* Rosen, 1992, p.231; correspondence with Wagener, 28-29 June 2009).

The results are shown in Table 1 (“choice” refers to whether the assignment was negotiated or not; “guarantee” refers to whether the assignment occurred before obligation to service or not).²¹

Both the US and Britain allow enlisted personnel some choice. However, the American practice is limited in scope and duration, attributable to market pressure, and functioning in precisely the way this theory predicts it should if present in an LME. It is described by Army personnel as an added recruiting incentive in hard times, and the US Marine Corps, which is not facing the same recruiting difficulties as the Army, has not felt the need to offer choice or guarantee except on a case-by-case basis where a recruit is particularly desirable. The British practice is more difficult to explain, as it is of long standing and generally regarded as “the way things are done” rather than an emergency recruiting measure. There are anecdotal indications that the British Army simply fears it will not be able to recruit sufficient numbers of high-quality personnel without this incentive in place, but this is a question requiring further investigation. The rest of the evidence is clearly in line with the theory; there is no change over time in any State but the US, and no clear grouping of the non-expeditionary vs. expeditionary militaries.

The second hypothesis indicated that CME militaries would offer additional vocational training to all service-members with at least medium-term contracts, and LME militaries would offer additional training only on a limited and competitive basis (i.e. as a reward or retention incentive). This hypothesis was tested by examining the training policies and facilities of the various militaries between 1991 and 2006. Alternative explanations would predict again either similar practice across all countries, or competitive training in expeditionary militaries and widely-available training in non-expeditionary militaries.

This hypothesis was confirmed in all cases. In Germany and the Netherlands, those with the shortest possible contracts (who were exclusively in the lowest enlisted track, below non-commissioned officer status) had no claim on vocational training beyond what was necessary for their functions. All those with at least a medium-term contract, however, had a right to further training, either during their term of service or at the end as part of their re-integration to civilian society.²² All LME militaries offered places or subsidized fees at vocational and other schools, but usually either on a competitive basis and with an additional service obligation attached, or on the soldier’s own time and initiative. The only additional training and education they were guaranteed was general personal development or higher

²¹ DFR A.10. Part II para. 26(3) ; Admin Instructions (Irl) A.10. Personnel, Para 202 (b) *sq* and Annex L : AF 339 ; Bundesministerium der Verteidigung (Dtl), “Arbeitgeber Bundeswehr” (www.bundeswehr-karriere.de) para 6.3 *sq* ; AMAR Part 2 Art.10 *sq* ; interviews Arata, Bittl, Boshouwers, Braga, Buchfeld, Cooney, Delorier, Hambly, Keane, Lucey, Plaggenborg.

²² Germany : Soldatenversorgungsgesetz (SVG), e.g. §3 and §5 ; interviews Bittl, Buchfeld, Skambraks. Netherlands : correspondence/ interviews Boshouwers, Plaggenborg, Van den Heuvel.

education (i.e. non-vocational), mostly associated with promotion requirements.²³ There was no major change over time, and the patterns fell out where expected, contradicting both alternatives.²⁴

The third hypothesis indicated that CME militaries ought to be able to offer fixed-term contracts for longer periods than private-sector employers are allowed to do. Hypothesis 3 was measured simply by determining what contract terms were available to people wanting to join the military and comparing them to the situation in the private sector. In both the Netherlands and Germany, private sector employers are allowed to employ people on fixed-term contracts for up to a maximum of two (Germany) or three years (Netherlands), and must then either release the person or offer him/her an indefinite contract (Grapperhaus & Verburg, 2002, p.17; Müller-Bonanni, 2006, p.62). If the militaries were allowed to offer fixed-term contracts of longer than two or three years, the hypothesis was supported.

The hypothesis was supported in both the Netherlands and Germany. In their militaries, a large number of contracts of varying length are possible, and the point at which indefinite contracts may be offered is far later than would be the case in the civilian world. In Germany, the military offers contracts of four, six, eight, or twelve years (or 20 for pilots), and in practice most personnel do not apply for indefinite status until they are between 28 and 31 years old, when they have been in service for at least eight years.²⁵ In the Netherlands, the military offers contracts of three, five, six, and eleven years (depending on rank/track). While the post-conscription system provides for basically automatic renewal of those contracts up to the age of 35 barring misconduct or failure to meet standards, it allows the award of an indefinite contract only as the individual approaches 35 years of age, after at least ten (and usually more) years of service (Atsma, 2005).²⁶ Such contracts and practices would be strictly illegal in the private sector (European Commission, 1997).

The fourth hypothesis stated that LME militaries would offer greater job security (less opportunity for firing) than private-sector employers generally do. The military contract should give the employer various structured points at which he can release the individual, but make firing outside of these points very difficult. This offers far more job security than the

²³ Basic overviews of this information are available from the official websites of the British Army (www.army.mod.uk/training_education/education/default.aspx) and of its counterpart in the United States (www.goarmy.com/benefits/education_taking_classes.jsp). Details were obtained through correspondence/interviews with Hambly, Joy, Arata, Delorier, Cooney, Keane, Lucey.

²⁴ Programmes such as the US military's GI Bill fall into the category of a voluntary benefit (the service-member must contribute to the fund to be eligible) done on the member's own initiative, generally after the termination of service. The hypothesis refers specifically to vocational or skills training provided by the military (directly or indirectly) during one's service period.

²⁵ Interview Feldmann. Basic overviews are also available on the Bundeswehr website at <http://mil.bundeswehr-karriere.de> : Militaerische Karriere : Ihre Karriere. Legally these contracts are available to those who have served at least three years, are 24 years old, and have achieved the rank of sergeant (Feldwebel) (SLV § 21), but in practice that rarely happens.

²⁶ Interviews Van de Ven, Plaggenborg, Soeters.

normal LME contract, helping to compensate personnel for the large amount of firm-specific training they are required to undergo and to allow the military a better basis for planning. This hypothesis was also borne out by the evidence, which indicates that enlisted service-members in LMEs who make it through basic training enjoy job security under contracts lasting anywhere from two to twenty-two years,²⁷ the military's ability to fire service-members being restricted to a very specific and limited set of circumstances (mostly involving disciplinary infractions),²⁸ and rehabilitation or reduction in rank being preferred to discharge.²⁹ Officers also enjoy relative security and predictability in their jobs, provided they perform adequately.³⁰ This is very different from private-sector employment in LMEs, which is usually terminable upon short notice at the will of the employer (European Commission, 1997).

The convergence hypothesis predicts that all militaries would work the way the US military works, as the most salient successful model. The US practice, however, is unique among both LMEs and CMEs in terms of its strict up-or-out promotion policies and its offer of multiple short-term but very rigid contracts for enlisted personnel. In Germany and the Netherlands, there comes a point after several years when the individual decides whether to make the military a full career or not, regardless of his status as officer or other ranks, and (except for initial rank requirements) regardless of his ability to get promoted. Both offer contracts of multiple different lengths, which must be served out, but are somewhat easier to exit than the American contracts. In all three LMEs, practices for officers and other ranks were distinctly different from one another. The UK and Ireland both offer extremely long-term enlistment contracts in which the individual must serve an initial obligation period and is then free to quit upon notice or apply for a continuance of service, but not free to be fired at will. While both countries allow for "redundancy" firing, it is a rarely-used last-resort option, and the individual generally has the right to be transferred to another job or unit rather than be fired. Ireland was far more similar to the UK than to either of the CMEs, indicating no support for the mission posture alternative.

Conclusions

Why do militaries, under enormous convergence pressures both domestic and trans-national, manage their human resources so differently both from one another and from firms in their home countries? This paper presented a theory and evidence indicating that the structure of the national economy affects how militaries manage their human resources. It indicates that

²⁷ QR 9.073 a-e ; DFR A 10 : Part I paras 8, 10 ; 10 U.S.C. § 505(c) ; AR 601-280 para 3-16 ; interviews Braga, Delorier.

²⁸ QR 9.379-9.414 ; Army Act 1955, Sec. 180 ; DFR A10 Part III para 58 ; 10 U.S.C ch. 59.

²⁹ QR 9.231-234 ; TJAGS 2006, Ch. C (esp. C-9f.) ; interviews Arata, Bradley, Cooney, Delorier, Hambly, Hodges, Joy.

³⁰ Pay Warrant 1964, clause 246 ; AGAI 2005, ch.67 and Annex L "Guidelines for the Award of Sanctions in AGAI 67 Cases", 67L-2; DFR A15 Part III para 18 ; TJAGS 2006, C-12f. and Ch. E; MCM 2000, 1003(b)(8) ; AR 600-8-24 6-13(a)(3) ; interviews/ correspondence Cooney, Delorier, Hambly, Hodges, Joy, Lane.

there is little likelihood of militaries ever functioning with the kind of efficiency envisioned by classical economics, and that domestic economic institutions affect even the most buffered and internationally-oriented government agencies.

This research supports the literatures on Human Capital and Varieties of Capitalism, and shows how these paradigms can be usefully extended to the analysis of public sector agencies. It also fits in squarely with other work affirming that domestic variables play important and sometimes dominant roles even in such quintessentially international-security realms as the military (e.g. Katzenstein, 1996 ; Kier, 1997). The implication of this paper is that there are structural as well as cyclical constraints on a government's ability to match its capabilities to its strategic ambitions. These findings have some immediate consequences and many more potential implications for military organization and operations, foreign policy, civil-military relations, domestic defence policy, military innovation, and even alliance politics.

First, the balancing act seems to favour LMEs. It is much easier to attract high quality people to military service if they are flexible and have low expectations of their employers. While CMEs have a clear advantage in the area of retaining quality personnel, LMEs have the edge in attracting high quality (i.e. trainable) labour, increasing recruiting incentives in the face of adverse economic or operational circumstances, and targeting retention incentives.³¹ This discrepancy may reinforce the difference in CME and LME States' preferences for institutional conscription.

Second, any State wishing to transform, reform, modernize, or otherwise modify its military must pay special attention to how its new goals fit into the larger economic picture. This paper is not an argument against making militaries more efficient. It is however a caution against thinking that militaries ought to run either just like other militaries or "just like a business". The State should be aware of the trade-offs involved in making a military function more like a business. As Becker points out, pay goes only so far; it matters what other firms in the economy are doing. Policy-makers in LMEs should keep in mind that those economies are generally better at producing efficiency than medium-term skilled labour, and militaries may need more of the latter than of the former. Retention of high-quality labour is the characteristic weakness of the LME military (*cf.* Rosen, 1992, p.231), and reform efforts ought to be directed at refining and targeting retention incentives. Policy-makers in Germany and the Netherlands must recognize that their personnel patterns make it necessary for them to keep the size of the military very small in relation to the military-age population, and that the deployable portion of their militaries will also be small due to the difficulty of managing rank-appropriate fitness profiles. This is likely to impose limits on how such militaries can be used.

³¹ This is a comparative argument and is not meant to indicate that LME militaries will not face difficulties in recruiting and retention.

The particular policies examined in this paper all contribute to patterns of recruiting and retention. Policies on allowing recruit choice of specialty work to increase the recruitment of quality personnel, and are more necessary in the harder recruiting environment of CMEs. The availability of extra skills training is also necessary for recruiting in CME militaries, but LME militaries may get an advantage from the fact that skills training is a bonus to workers (rather than a minimum requirement) and that offers of extra training could work as targeted retention tools (as opposed to the way the old GI bill functioned, which encouraged exit). The high level of job security which a military offers in contrast to normal firms in LME markets is a huge boon to recruiting and improves retention, but may also present an undesirable incentive for the least-capable individuals to stay in military service, as they would be the least likely to do well in the private sector. Militaries in LMEs would be well-advised to pay special attention to promotion and other rewards systems to balance out any adverse incentives (Rosen, 1992, p.232 *sq*). Lower levels of job security associated with the military in CME States may have a dampening effect on the recruitment of high-quality personnel, but it gives the organization slightly more control over personnel profiles and quality than the average CME firm enjoys.

Some of the longer-range questions which this research raises relate to how such patterns of recruiting, retention, and career-management may affect larger policy areas. This paper indicates that militaries may be subject to more or less rigid size-quality trade-offs and operational capacities, both of which should affect governments' calculations of their foreign policies. Militaries in LMEs appear to be more flexible and better able to deal with economic and demographic pressures, which may make them slightly more reliable and flexible foreign policy tools. Militaries in CMEs may have less leeway, especially when faced with difficult recruiting conditions such as demographic troughs, and this may place stricter limits on their reach as foreign policy tools.

It is possible that these patterns of human resources practices, recruiting, and retention may have effects on general civil-military relations, especially in terms of how the military is perceived as an organization and as an employer. Future research might investigate cross-national patterns of post-military employment and/or higher education, popular perceptions of how military service affects economic status and future work life, and popular perceptions of who joins the military. It is also likely, given systematically different levels of unemployment and welfare support in Liberal vs. Coordinated Market Economies, that unemployment cycles would have a much more noticeable effect on recruiting/retention in LMEs than in CMEs.

The economic literature makes the case that different institutional constellations are the basis for comparative advantage. While it would be attractive to assume that militaries, too, will have operational comparative advantages, the picture is a bit more complex. The argument of this paper is that militaries make adjustments to their national economic templates precisely in order to attain similarity in their end results, thus attenuating any tendencies

toward specialization. Furthermore, as militaries are not subject to the market-streamlining effects of bankruptcy, they are unlikely to cluster and specialize in the way that comparative advantage predicts for national production. This does not, however, remove all possibility of some sort of operational or preference differentiation between militaries, and this could be a fruitful line of inquiry. Should such differentiation exist, it would almost certainly affect both the policy pressure which militaries exert on their governments and the behaviour of States within alliances.

One potential differentiation towards which the present argument points is on militaries' abilities to respond to change in the strategic environment. Militaries must do better than attract and retain sufficient numbers of personnel to meet national security challenges; they must also be observant of and organizationally responsive to new threats. Several studies on military innovation indicate that personnel policies such as those governing promotion and job assignment have a significant impact on militaries' ability to develop and implement appropriate responses to new threats (Zisk, 1993, esp. p.183 *sq* ; Rosen, 1991 ; Avant, 1994 ; Brooks & Stanley, 2007). An investigation into the ways that specific personnel policies affect organizational learning and innovation is likely to be particularly useful.

This paper addresses a causal relationship at the mid-point of a complex chain, and much room for investigation remains. I have argued that enhancing our understanding of how economic and political institutions interact can also help us analyze how militaries work and affect defence, security, and foreign policy. To appreciate the role of the military in the political and economic life of the State, we would do well to consider the institutional structures that determine who will serve.

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