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Let's Count and Manage – and Forget the Rest. Understanding Numeric Rationalization in Human Service Provision

Ingo Bode [*]

Abstract: »*Zählen und Managen – und den Rest vergessen. Nummerische Rationalisierung von Humandienstleistungen*«. In recent times, the development of Western welfare states has been strongly influenced by regulatory and managerial approaches that embody what this special issue refers to as 'governing by numbers'. This article delineates this development by using the example of the human service industry in Germany. The analysis is embedded in a macro-sociological perspective on blurring boundaries between the capitalistic (market) economy and the welfare state, arguing that a certain kind of (instrumentalist) numeric rationalization has spilled over from the former to the latter and sets limits to what is named 'human development rationality' within the operational core of involved organizations. Drawing on case study evidence from four different areas, it is shown in which dimensions this movement takes shape and how it fosters the crowding-out of elements inherent to this rationality. However, due to the proliferation of ever more 'perfectionist' expectations concerning quality issues, this crowding out provokes various provisional organizational and institutional responses. While the latter make production processes more volatile overall, there is no end of history regarding the struggle between instrumental rationality and countervailing forces within contemporary welfare states.

Keywords: Social theory, welfare state, instrumental rationality, human development, New Public Management, social and healthcare services.

1. Introduction

Over the last two or three decades, major Western welfare states have become subject to what this special issue refers to as 'governing' or 'governance by numbers' (Jackson 2011). This reflects a more general trend towards the use of metric norms for (re)shaping institutions and organizations in the wider society (Espeland and Sauder 2007; Vormbusch 2011; Engle et al. 2015; Rottenburg et al. 2015; Mau 2017). In this vein, quantitative indicators have also become

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employed in various areas of human service provision such as healthcare, education, and social support – which reflects the proliferation of a steering mechanism that will be labelled 'numeric rationalization' throughout this article. Being modelled on tools for business process reengineering in the private market economy, this mechanism works by various instruments, among which funding caps, deadline enforcement, or comparative benchmarking. It focuses on tangible aspects in human service endeavour, glossing over the fact that a good deal of what makes such endeavour a social intervention proves *intangible* in the sense that it is difficult to grasp, measure, and quantify.

Historically, we are dealing with a new configuration. Granted, regarding the modern welfare state, social benefit schemes have always been based on numeric standards, materializing in means-tests or (pre-)fixed entitlements. Furthermore, such standards have been used for building and maintaining the very infrastructure of welfare states, for instance when it came to creating amenities or to planning staff and material equipment. However, within many of those organizations the welfare state has entrusted with ensuring the well-being of the citizenry in other than mere economic dimensions, numeric standards had long been absent from the *operational core* of the production process. The bulk of what can be referred to as human service industry pursued a general mission of 'processing people' (McKinlay 1975; Hasenfeld 1992) by purposeful interventions viewed as adequate within the confines of extant operational capacities. The focus was on human development or social reproduction, without detailed prescriptions about how to achieve it.

Meanwhile, however, figures, indicators and metrics have become major reference points within that industry (Considine 2001; Gilbert 2002; Tilbury 2007; Frandsen 2010; Verbeeten et al. 2017; Vrangbæk et al. 2017). The design, resourcing, and evaluation of service delivery is increasingly subject to assessments of inputs and outputs, including where common wisdom suggests that these assessments capture the nature of the respective services in rather crude ways. This also applies to standardized quality inspection schemes and program evaluations, all very popular internationally (Power 1997; Dahler-Larsen 2017).

Situated at the intersection of political sociology and organization studies, this article provides both a general picture of this movement and a reflection about its internal chemistry, with a focus on how, and with which implications, numeric rationalization plays out in the operational core of relevant human service undertakings. In a nutshell, it is argued that the contemporary human service industry is affected by a blurring of boundaries between the welfare state and the capitalistic economy. This pressurizes the industry to 'factor out' intangible elements in its production process although these elements prove crucial to the human development of its target groups. At the same time, internal (or external) stakeholders are facing (or expressing) expectations to make services 'perfect'. Therefore, they attempt to compensate for what is forgotten when a production process is 'governed by numbers'. This is why human service provision eventually becomes volatile – which, in turn, puts considerable strain on the involved parties and makes the 'governing of numbers' a permanently unfinished endeavour.

The analysis starts by setting out a theoretical framework that delineates the evolving 'division of labour' between societal sectors, concentrating on the respective role of 'numbers' in these sectors. The focus lies on business-like management meeting a human service industry that is still expected to yield outcomes *different* from those in the classical market economy. From this theoretical reflection, a couple of questions are inferred concerning the implications of numeric rationalization, both at public policy level and in relevant organizational settings. The second part presents (condensed) evidence from four areas of human service provision in one big European nation, that is, Germany. The analysis is organized around categories prominent in the wider international literature exploring the evolving human service industry. Particular attention is paid to the encounter of numeric rationalization and rising expectations to make services perfect, with this entailing complex coping arrangements at both organizational and public policy level. The conclusion contains a reflection about driving forces behind the overall development and a short outlook into the future.

2. Blurred Boundaries? Movements of Rationalization across Societal Sectors

A major theme of modern social theory is how complex societies organize themselves in order to ensure social cohesion despite increasing specialization and considerable internal heterogeneity. To be sure, the respective scholarship disagrees about how social cohesion can be defined, to which extent it is achieved, and which mechanisms may contribute to it (Alliot and Lemmert 2014). However, a good deal of classical social theory departs from the assumption that modern society achieves integration by allocating specific roles to several social systems or sectors, each shaped by specific regulations. From Marx to Parsons, one important reading was that this implies a clear-cut division of labour between the (capitalistic) economy and other societal sectors that were institutionally separated from the economic world – although orthodox Marxism assumed a tight coupling of the state and capitalistic forces in the political arrangement orchestrating this division of labour.

After Marx, social history was often understood as a process of *functional differentiation* (for many, see Alexander 1997). The market economy appeared as a sphere of action dominated by company owners, whereas other societal sectors became entrusted with tasks deemed necessary to make that the market economy work smoothly. These sectors were meant either to contribute to economic endeavour by fulfilling infrastructural functions (e.g., education) or to compensate for the lack of social concern within the economic system (e.g., care for the physical well-being). In this understanding, the state (and partners from the non-profit sector) took over the role of social reproduction and human development (see below) – whereas the economic system, considered as the major productive sphere of modern society, was relieved from such responsibilities.

This reading, focusing on the relationship between the state and the economy, is prominent in various accounts dealing with the modernization of Western society (for many, see Therborn 1996 or Streeck 2012). Importantly, it does not imply that, following the advent of the modern welfare state, the terms of trade governing the economic system were irrelevant to sectors outside that system, given that these sectors were dependent on the latter in material terms, with money serving as a means for cross-sectoral integration. For various reasons, however, these accounts suggest – whether implicitly or explicitly – that non-economic sectors were sheltered from this system in important respects, in particular when it came to procedural issues. The operational, 'people processing' core of the involved organizations was expected to follow its own rationale when assessing concrete needs, applying special knowledge, and taking decisions about the type and duration of the action to be taken.

It can be argued that such functional differentiation connects with the *mode of rationalization* shaping the development of these sectors. From mainstream descriptions dealing with the *modern capitalistic economy* one can infer that the latter has seen an ongoing and constantly intensified movement of means-ends-relations becoming assessed and processed by using numbers in systematic ways. This already was a key observation of Max Weber (1978) according to whom efforts to extend this mode of rationalization were obvious from early industrialism onwards. He saw *instrumental rationality* as a driving force behind the modern economy, connecting with a distinctive cultural configuration arising with early Protestantism (Weber 1930). In this vein, the compliance with operational goals (including yield targets) becomes an essential concern in mainstream corporations. Other theories on the internal chemistry of the market economy submit that the latter's core operations reflect a permanent search for surplus-income and cost-efficiency, with sophisticated accounting schemes monitoring input-output ratios (Slater and Tonkiss 2001). According to Marx, the maximization of 'added value' to be measured by abstract monetary symbols is even fundamental to any organized economic agency in a capitalist world. Be it as it may, the overall result is a permanent drive for *numeric rationalization*.

Perhaps such narratives overstate the separation between the economic and non-economic world, as more recent accounts dealing with the social order of capitalist societies would suggest. According to these accounts, regulations relevant to non-economic spheres have always been an integral part of the economic (capitalistic) system as well. Meanwhile, the latter creatively appropriates elements from non-capitalist sectors – that is, various 'economies of worth' in the terms of Boltanski and Thevenot (2006) – and uses them for its own objectives. A similar understanding can be found in Parson's system theory with its emphasis on movements of interpenetration across social systems. It also appears in Luhmann's work that highlights the role of money as a regulatory boundary medium connecting otherwise highly heterogeneous social spheres (Schimank 2005). However, none of these theories denies that major players of the capitalistic economy have from very early on concentrated on instrumental rationality translated into abstract, quantified objectives. In private business, the achievement of numeric goals is a goal in itself – which has made the economic system the homeland of the 'governing by numbers'.

Interestingly, social theory, let alone in its classical versions, has paid little attention to the question of how rationalization developed in productive sectors *outside* that system, in particular those that received a remit of *working with human beings* in areas such as healthcare, education, and social support. It is theories dealing with professionalism, welfare bureaucracies or human service organizations that – at least implicitly – provide some insights into the rationale that guided the development of these sectors during the 20th century (see e.g., Billis 1984; Trattner 1994; Rauschenbach 1990). From this body of work, one can infer that the activities in the respective industry, and by extension, the agencies meant to orchestrate them, formed a social universe featuring a distinctive approach to rationality (Kaufmann 2001). This approach was corroborated by those streams of sociological thinking that came to influence this universe from very early on by disseminating knowledge about the intricacies of social integration. This thinking illuminated the complex interdependence of multiple (and sometimes erratic) social factors impacting on human well-being (such as unemployment due to economic downturns; poor education in rundown collectivities; or diseases caused by spatial contagion).

Internationally, this line of reasoning had its heyday during the 1960s and 1970s when welfare states and the related infrastructure witnessed a quick expansion. Across important sections of public administration and the nonprofit sector (as a partner of the latter) as well as among the emerging welfare and medical professions, a distinctive understanding of means-ends-relations took shape. Difficulties to assess the precise origin of encountered problems, as well as limits in associating inputs with outcomes, were accepted to a large degree. Given the complexity of social, mental and physical conditions of human life, it was assumed that attempts to organize the production process according to standardized means-end-relations would inevitably fail (Baumol 2012, for the case of healthcare). It was also stressed that operational leeway at 'street level' (the local space in which services must be provided) would be indispensable for those dealing with a 'human case' (Lipsky 1980; Gofen 2013). Hence fine-grained calculation of inputs and outputs, as well as performance control based on costs and achievements, were widely absent from their day-to-day activities.

To be sure, this configuration did *not* involve endless efforts to meet encountered needs, nor did it imply that mainstream activities of people-processing were exempt from shortcomings. Heuristic process management, mental short cuts, or rules of thumb were widespread (McKinlay 1975), and organizational development was contingent on 'negotiated orders' and (micro-) political dynamics (Bechky 2011). Yet the rationale sketched above presupposed the acknowledgment of what made human services a *social* intervention that contains *intangible* elements difficult to grasp, measure, and quantify. In this sense, the spirit prominent in typical organizational settings of the respective industry was imbued with what can be labelled '*human development rationality'*, based on the belief that the means-ends-nexus in these settings proves fuzzy in many instances (Hasenfeld 1992). Thus, the human service industry of that time was largely sheltered from those forms of numeric rationalization that had shaped the capitalistic market economy from its early days.

During the 1980s, however, the context for human service provision changed markedly. First of all, internationally, the capitalistic economy went through a sea change (Boltanski and Chiapello 2006; Crouch 2011; Streeck 2012; Morgan 2016). One element in this transformation was the *'radicalization' of numeric rationalization*, with this affecting both intra- and interorganizational relations. Concerning inter-firm relations, systematic outsourcing and the growing role of financial market transactions have contributed to values being measured permanently and short-term. This was driven by both technological options and the deregulation of legal frameworks. Concomitantly, a market-driven human resource management took centre stage within many standard corporations. Tools such as 'pay for performance', management by objectives, and internal contracts were predicated on fine-grained input-output measurement. They became employed even where objectives were vague (e.g., in advertising endeavour), when performance was impossible to attribute (because it is due to many entangled factors), and for situations in which it proved hard to specify contractual provisions (with a given task environment changing in unforeseeable ways).

A further historical turn were changes in *public policies regulating the welfare state*, dealt with under headlines such as 'privatization', 'marketization', 'New Public Management', or 'managerialism' (for many: Klikauer 2013). Claiming *'value for money' and meticulous accountability* became popular and been endorsed by new regulatory tools featuring, among other things, the admission of commercial firms to the infrastructure used for promoting human development (or ensuring social reproduction), as well as competitive service provision based on public tendering and internal or quasi-markets (Pollitt 2011, Bode and Brandsen 2014, Hyndman and Liguon 2016). What this brought to the fore was a general *blurring of boundaries* between the capitalistic economy and the welfare state (Bode 2012a; forthcoming).

This movement becomes particularly discernible when looking at the contemporary public and organizational discourse around human service provision. Both public programs and service providers have adopted the language of the private market economy. Administrative and service-delivering entities have been relabelled ‘enterprises’, users are labelled ‘costumers’, and key areas of human service provision have become conceived of as being a ‘service market’ (see examples below). In areas such as healthcare, social support or education, concepts propagating entrepreneurialism, marketing, surplus revenue generation and the like have proliferated far and wide. With this movement, quantitative indicators are supposed to take centre stage in the human service industry, with ambitions to use them for governing and overseeing the production process, and more generally for enforcing compliance with political or administrative targets (Frandsen 2010; Soss et al. 2011). As mentioned in the introduction to this special issue, one aim of such indicators consists of making social phenomena visible that cannot be observed directly, to ensure that otherwise latent phenomena can become subject to deliberate managerial agency (Bartl, Papilloud, and Terracher-Lipinsky 2019). From this perspective, the new context of human service provision proves fertile to a ‘governing by numbers’ penetrating the operational core of major organizational settings.

At the same time, relevant organizations from the human service industry have become exposed to a *radicalization of expectations concerning their performance*. In general, throughout that industry and the related welfare state environment, the understanding of quality still differs from the approach prevailing in the capitalistic economy. In the latter, outputs are only expected to be in line with what customers know, want and may become enticed to. By contrast, in contemporary Western welfare states, social intervention is meant to be *effective* at *any* rate and for *any* citizen. Typical examples include acute healthcare or child protection. Should a given way of social intervention be found impeding this mission in obvious ways, one can expect public disquietude and pressures to contain the ensued damage. Hence the *distinctive function* of human services seems to remain a public concern, as can be inferred from international opinion polls (see e.g., Sachweh 2016).

Nowadays, popular expectations are *perfect* service delivery and ‘*no one* left behind,’ at least in some areas (Dean 2015). While this conforms to the normative foundations of the classical approach to ‘human development rationality’ in the above sense, both numeric rationalization and the primacy of instrumental rationality related to it come into play here as well. This is epitomized by quality assurance schemes that are proliferating world-wide for some time now (Dahlen-Larsen 2017). These schemes are often operated by inspection bodies that check the actual outputs of service providers and take action against those that (allegedly) fail to deliver what could have been achieved in theory. Examples can be found in the healthcare industry (van der Pennen et al. 2015), in medical rehabilitation (Kersten et al. 2015), or in the area of family intervention featuring 'increasingly econometric assessments limited to measurable quantitative and 'transformative' indicators of efficacy' (Batty and Flint 2012, 356).

Seen from this angle, the context of contemporary human service provision is imbued by 'institutional ambiguity' (see Bode 2015), including when it comes to the role of rationality. This begs the question as to how relevant stakeholders of the human service industry handle numeric rationalization. The institutionalization of numeric mechanisms in the steering and evaluation of collective action as well as concepts for 'reading' and using messages behind figures are of particular interest here. A more general question is about how this affects the division of work between the welfare state and the capitalistic economy.

For dealing with this question, a special theoretical lens on the intersection of public norms and organizational responses proves helpful, namely the perspective adopted by what has become known as *organizational institutionalism* (Scott et al. 1911; Greenwood et al. 2017). This approach directs our awareness to both societal rules shaping collective action *and* the role of sector-specific organizations that interpret, implement and (sometimes) bend rules by 'institutional work' (Lawrence 2009). It also provides a macro perspective on rationalization focusing on 'institutionalized' pressures on societal sectors concerning both economic (means-end) rationalization and socio-cultural modernization (Meyer et al. 1994). While the former is driven by instrumental rationality (in the above sense), neo-institutionalist accounts understand socio-cultural modernization as a movement through which greater emphasis is placed on values such as human dignity of human beings and individualism. The amplification of the human rights agenda at global level and the universalization of basic entitlements to public services such as healthcare are often viewed to epitomize such modernization (Heartley 2015; Böhm 2017). It is important to see that this movement chimes with the idea if 'human development rationality', but also with the aforementioned drive towards 'perfectionism'.

Whereas such developments are nicely captured by neo-institutionalist accounts (e.g., those engaging with the so-called world-polity theory, see Bromley and Meyer 2017), the latter are rather silent when it comes to the question of what happens if 'human development rationality' meets numeric rationalization. This is why one has to dig deeper when studying changes of both regulatory foundations of human service provision and collective action in typical organizational settings. Key questions for such endeavour are:

- What are typical *manifestations* of business-like numeric rationalization in relevant areas of human service provision?

- Which *implications* are discernible at organization level, given both the leeway left to street level action and persisting (classical) expectations concerning the promotion of human development?
- Which conclusions can be drawn in terms of theories dealing with *functional differentiation* in Western societies?

3. Numeric Rationalization in the German Human Service Industry: Manifestations and Implications

Recent international studies on the evolving human service industry, covering areas such as healthcare, elderly care, social work and support to jobseekers (education is not considered further here), bear witness to global movements of change, although this change occurs in various forms and to different degrees (Spratt et al. 2015; Martinelli et al. 2017; Marchal and van Mechelen 2017; Vrangbæk et al. 2017). Thus, some sections of that industry have been transferred to *private businesses* that pro-actively adopt technologies from the 'mainstream' capitalistic economy, including new steering tools and output control systems – that thereby become popular within the *entire industry*. Furthermore, *regulatory welfare state agencies* have adopted methods from the private market economy, namely: competitive contracting based on quantified deliverables; prices attached to distinctive service operations; quality control based on output indicators. Finally, *all types* of providers (whether public, non-profit or for-profit) carve out ways to both conform to these new 'rules of the game' and maintain core operations in line with their classical mission – which implies tensions at organization level that intrinsically connect with the trends towards 'governing' or 'governance by numbers'.

Research on the respective dynamics is still in its infancy. In what follows, findings from work conducted by the author of this article and various associates (Bode 2010, 2015, Bode et al. 2017; Bode et al. 2013; Aiken and Bode 2009; Bode 2014; Bode 2012b; Breimo et al. 2017) are used to describe recent developments in *Germany*. According to a widely held view, this is a country in which changes to both the political economy and the administration of the welfare state have been less radical than elsewhere. Thus, Hammerschmid and Oprisor (2016), dealing with the influence of New Public Management, submit that, in this country, the latter has proved a 'difficult terrain for management ideas and instruments' breaking with the traditional settlement. So if 'numeric rationalization' is found to matter even in this context, its penetrating power becomes particularly evident.

The following analysis covers four different areas of the human service industry and is meant to highlight commonalities rather than differences. It draws on a couple of multiple case studies (in the sense of Stake 2006) that all had a qualitative design. The emphasis was placed on changing regulatory frameworks, public and organizational discourse, and the sense-making of stakeholders involved in the production process. Samples embraced up to 15 providers in a given area of human service provision. The bulk of the data was collected by problem-centred interviews with middle managers and street-level professionals. Hermeneutic content analysis was applied to exploit these data. In addition, experts representing the areas at large (from associations at sector level or from government bodies) were interviewed to corroborate findings from the selected organizational settings. Concerning the evidence used for this article, the focus lies on manifestations of numeric rationalization as reported by relevant respondents, on the one hand, and the perceived implications associated with them, on the other.

Table 1: Manifestations of Numeric Rationalization in Four Human Service Industries

Sector	Type of Organization	Regulation	Governance at Organization Level
Healthcare	*Public Management* sickness funds	* 'price tags' and pay-for-performance * contracts & cost monitoring	reorganization towards a 'true enterprise'…. - key account managers - targets, p4p …
	Providers example: hospitals	* lump sum prices (DRGs) * economic risk with providers	* case-based accounting * human resource management geared towards 'market success' (p4p etc.)
Eldercare	*Public Management* LCT-funds/LA's	* contracts based on fixed gross budgets * negotiated prices, per time unit	similar to above (first line)
	Providers example: home care	* direct payments (according to degrees of need) * full risk with providers	* strictly clocked work plans * just-in-time workforce
Job integration	*Public Management* labour administration / regional centres	* public tendering & fixed-term contracts with output control * numeric monitoring across all boards	* reorganization towards a 'true enterprise'… * … according to 'market values'
	Providers example: job integration services	* lump sum prices (per 'out-contracted' case) * full economic risk with providers	* strict internal accounting * just-in-time workforce
Child protection	*Public Management* Local authorities	* measures based on informal budget caps * contracts featuring rough quality targets	* 'financial departments' monitoring outlays per case * 'temporalisation' of social intervention
	Providers example: family support services	* payments per place / package of hours (fixed term) * risk with providers, yet often stable local networks	* flexible work regime * management of 'cases' in accordance with 'vacancies'

Manifestations of numeric rationalization were found at two levels and for two archetypes of organizations. The two levels comprise public regulation and organizational governance; the two archetypes are public management agencies and providers. In the remainder of this section, findings concerning these levels and organizations can only be summarized in rough terms, given the space limits of a journal article. For the same reason, observations are not substantiated by references at each instance (they are all contained in the sources listed above). Table 1 and 2 display findings pertaining to inpatient care, domiciliary eldercare, job integration measures, and child protection.

Regarding *healthcare*, first of all, its public management in Germany is largely devolved upon sickness funds (*Krankenkassen*). The current *regulation* makes them operate as social insurance units with a public administration mandate. Concerning inpatient care, they have a remit to (co-)organize a payment scheme in which disorders are assigned fixed unitary prices and allocated to 'diagnosis related groups' (DRGs), with the funding perceived by providers following the number of (DRG) cases under treatment (however, costs for nursing will no longer be included in this system from 2020 onwards). In addition, for the (small) area of integrated healthcare projects in which hospitals can collaborate with other providers such as pharmacies or rehabilitation services, sickness funds negotiate selective contracts. These contracts often exhibit benchmarks for the costs incurred per patient even as actual expenses are subject to scrupulous comparative monitoring. In the near future, sickness funds will be entitled to remunerate inpatient care providers on a pay-for-performance (p4p) basis, meaning that the funding of a given activity depends on achievements such as a low rate of complications following a surgery. It is noteworthy that sickness funds compete among each other for enrolees and have an interest to offer them low contribution rates (insurance premiums). It is against this background that, over the last two or three decades, they have pushed for numeric rationalization in various respects. Accordingly, their *internal governance* has changed profoundly. Posts for key account managers have been created; internal targets and performance-related salaries are common.

This corresponds with developments affecting healthcare *providers* such as hospitals. As the afore-mentioned 'DRG scheme' devolves the full economic risk upon entities that (equally) operate in a competitive landscape, balance sheets become a day-to-day concern here. Consequently, German hospitals have gone through comprehensive 'business reengineering' during the last decades. Conceiving of themselves as fully-fledged enterprises, they have established sophisticated accounting tools whereby they continuously compare income and outlays per patient. Staff specializing in numeric controlling recurrently confronts doctors with such information. Moreover, the output-input ratio per medical department has become a key issue for top executives. Human resource policies are geared towards 'market success', with performance-related pay (usually for chief physicians and line managers) being a key lever for this.

The *eldercare sector* has felt the same wind of change. As for *regulation*, service provision is based either on contracts between providers and (public) purchasers in which gross budgets are calculated on 'cases' – this pertains to residential care – or on prices per time unit spent for service delivery in the area of domiciliary care. Prices are negotiated between independent providers (for-profit and non-profit) and both the long-term care insurance and representatives of local authorities. Payers use to be quite powerful in these talks even though they appear less entrepreneurial than the sickness funds, given that there is no competition for enrolees in this branch of the German social insurance system. Market dynamics are nonetheless quite strong in this area, affecting *providers* in various ways. While the residential sector embraces a number of companies traded on stock markets, undertakings in the domiciliary care (sub-) sector are exposed to strong 'pressures to sell'. Their income depends on how beneficiaries use the benefits granted by the long-term care (social) insurance after a need assessment. With this direct payment, users can freely – and recurrently – select a company from a large range of competing providers. The latter incur considerable economic risks and tend to organize the work flow under a tough time regime. Just-in-time management is imperative, according to meticulous planning based on numeric targets.

These targets proves even more vital for the German *labour administration*, notably when it comes to supporting jobseekers on their way back into gainful employment (e.g., by providing training, work experience, social advice). The *regulation* in force incites regional units of the responsible national agency to contract independent service providers after public tendering. Fixed-term agreements specify their tasks in very precise terms. Payments or the renewal of contracts in the subsequent round of tendering depend upon quantitative assessments, e.g., concerning the share of jobseekers integrated back into the labour market. In terms of public administration, this implies numeric monitoring across all boards. Concerning *providers*, many of those that offer the respective services have ended up as quasi-commercial enterprises that tend to select potential users according to their assumed 'pay-off', a management tool referred to as 'creaming' in the expert literature. Far and wide, these service providers tend to organize the work flow in line with this volatile contract regime, e.g., by recruiting freelancers and fixed-term staff.

In mainstream social work, such tendencies are less pronounced. However, taking the example of *child protection*, one can see that numeric rationalization does come into play here as well. The current *regulation* (at national level) is not very explicit about the terms of service provision. However, it contains provisions on quality assurance that must be included in contracts agreed between local authorities (LA's) and independent providers (family help services, for instance). The actual public management of child protection lies with local welfare offices. In some places, the latter impose informal caps on outlays per intervention (e.g., outreach family help) or on the amount of measures to be commissioned to independent (non-statutory) providers during a certain period of time. More generally, agreements with independent providers frequently contain numeric standards (e.g., lump-sum payments per case; time limits to domiciliary family support). In addition, the financial departments of many welfare offices monitor expenses per case to infer conclusions about the assumed utility of mandated measures. Concerning *providers*, those involved in outreach work receive payments for a prescribed 'package of hours' on a fixed-term basis and have to come to terms with volatile income streams. Although many providers manage to collaborate in local networks (embracing both peer organizations and public authorities) to facilitate long-term agreements on prices and conditions of service supply, flexible hours and fixed-term jobs are widespread in this area. While welfare departments often set time limits to mandated measures, some providers try to retain 'cases' longer than intended because they do not receive much funding in case of vacancies.

Thus, across quite diverse sectors, *similar movements* are discernible. The welfare state orchestrates a 'governing by numbers' at various instances while organizations offering human services on its behalf instil the respective rationale into their work settings. *Inter*organizational relations (e.g., between sickness funds and healthcare providers) become imbued with 'numeric reasoning', in particular when it comes to designing contracts and output control schemes. This reasoning also affects the *intra*organizational governance by both public administration units and managers of service providers. As the regulation in force devolves a good deal of economic risk on these providers, the latter make ample use of numeric standards to control the production process – be it by temporal prescriptions; the alignment of budgets and service hours; or pay according to prefixed targets and measured outputs. Their human resource management is geared towards exploiting opportunities given by the (labour) market, by imposing dispersed working hours, flexible work contracts, and reduced effort devoted to activities of which effects are difficult to assess. All this tends to 'discipline' those professionals who otherwise would have greater leeway to work with clients according to case-specific considerations, that is, with street-level discretion in the above sense.

It is difficult to provide 'hard data' on the implications this mode of 'governing by numbers' has had in terms of *outcomes for users* – let alone in a long term perspective that matters most when it comes to human development. Also, the entire range of implications of NPM and related patterns of organizational governance in the human service industry cannot be discussed within the confines of this article. However, the available evidence hints to '*forgotten concerns*', that is, elements that get lost with numeric rationalization proliferating in the areas under study. Again, only an overview of the respective findings can be provided; it is summarized in a list of observations reported by experts and informants from the industry (see Table 2 below, left column).

In *healthcare*, it seems difficult to ensure the continuity of service provision across sub-sectors such as rehabilitation, out-patient care, domiciliary nursing, and psycho-social treatment. Quantitative benchmarks incite providers to concentrate on what is measured by their own hierarchy. In many instances, 'soft' support – such as personal assistance for patients; conversation with relatives; attention paid to psychosomatic dimensions of the healing course – is at a premium, given an ever more 'Taylorized' production process. In *eldercare*, domiciliary care workers can stay with users only during a prefixed amount of time (sometimes only 15 minutes), concentrating on body-related tasks at the expense of personal care. Further activities are often left to separate providers, e.g., in home help or dementia care; these providers are operating under similar restrictions, however. Altogether, services use to be poorly integrated even as spontaneous needs are covered only accidentally. Concerning job integration projects initiated by the *labour market administration*, the production process is infused with a 'work first' orientation that glosses over the wider circumstances under which jobseekers participate in these projects. The involved professionals are impeded to pursue a 'life first' approach that consists of accompanying users along a trajectory interconnecting various services (illness prevention; social support; training; family counselling etc.). As regards *child protection*, welfare offices often feel unable to keep track of 'cases' they have been concerned with. Given a fragmented and volatile chain of interventions, information across various providers and neighbouring sectors (such as healthcare and social work) is hard to get. Putting their faith in output monitoring schemes and formalized reporting tools, they risk missing essential parts of the story around a given client, crucial to influence his or her future perspectives. Moreover, services are perceived to become more rudimentary, due to the more extensive use of both fixed-term measures and outsourcing.

Overall, a good deal of the complexity inherent to human development seems to get lost in the 'governing' of the sectors under study and their organizations. However, as organizational institutionalism suggests, formal prescriptions are not the final word. Actors involved in policy-making, on-site management or service provision perceive shortcomings and try to cope with them in one way or another – which hints to a *second set of implications* that came to the fore in the research undertaken. In fact, rules can be bent by those who maintain leeway in the production process, and policies may react on what numeric rationalization in human service provision is perceived to bring about. Findings from the aforementioned research projects suggest that such coping behaviour occurs in various ways; again, they can be portrayed only in rough terms within the confines of this article (see the right column in Table 2, the included observations apply to several of the sectors under study here). The focus lies on the production process at street level and on the evolving public regulation (public management as such is not examined further here).

Concerning *healthcare*, first of all, activities that, due to the 'governing by numbers', are abandoned in *one* organization or *one* sector may be taken over elsewhere. This can be observed with regard to rehabilitation services – although the latter may not always be able to repair shortcomings of acute care institutions. Moreover, relevant professions in the hospital sector exhibit self-exploitation behaviour, materializing in work intensification, extra-hours, or the acceptance of extraneous tasks. Furthermore, relatives (if available) are frequently invited or even urged to compensate for the lack of attention that emanates from the tough time regime for professionals in the wards. As regards public policy-making, 'relief programs' established from time to time (e.g., those entailing extra funding for inpatient nursing) enhance organizational slack needed to meet an unexpected workload per case. Concerning eldercare, similar dynamics are salient. In this area, staff and relatives seek and find provisionary solutions when being exposed to unforeseen needs, sometimes at the expense of their own well-being. At public policy level, programs have been launched to promote low-skilled personal assistance to users affected by dementia in order to alleviate the workload care workers; the respective services, however, remain institutionally separated from mainstream providers. As regards job integration measures orchestrated by the *labour market administration*, it can be observed that organizations running a measure (have to) devolve tasks upon other instances such as charity projects (e.g., volunteer coaches) if these are available. Moreover, following the end of one measure, participants are often shifted to a new scheme, e.g., one addressing special target groups such as refugees. Dovetailing interventions in this way appears widespread, driven by public policies that invent new (fixed-term) programs again and again. Concerning *child protection*, the professions involved in this sector tend to compensate for the lack of time and 'organizational patience' by informally allocating extra time to complex cases (while engaging less with routine work). Furthermore, agents of welfare departments, when facing time or budget caps for a certain kind of social support, use options to move a 'case' to a neighbouring welfare sector (e.g., one for psychiatric patients or disabled people). Likewise, public authorities have launched new – often experimental – programs by which the welfare state can delegate tasks to novel occupations (such as 'family midwives') or on community work projects, both meant to provide 'light-touch' services to families facing social problems.

Table 2: Implications of Numeric Rationalization

<table>
<tr><th>Sector</th><th>Forgotten Concerns</th><th>Coping with Perceived Shortcomings
* Organizational Improvisation
→Institutional Improvisation</th></tr>
<tr><td>Healthcare</td><td>* continuity of care
* 'soft' support
* psychosomatic dimensions</td><td rowspan="4">* devolving tasks upon neighbouring sectors
* self-exploitation of staff
→public 'relief programs' increasing slack (for a while)
* using relatives (if available)
→policies funding low-skilled personal assistance by separate agencies
* dovetailing interventions (for the same user)
→special programs (for target groups)
* staff investing extra-time for selected clients
* shifting 'cases' to other programs
→public policies promoting new / experimental light-touch occupations / projects</td></tr>
<tr><td>Eldercare</td><td>* integrated service provision
* personal care
* spontaneous needs</td></tr>
<tr><td>Job integration</td><td>* life first, assistance across various social spheres
* long-term support</td></tr>
<tr><td>Child protection</td><td>* the story around a 'case'
* future perspectives of clients
* cross-sectoral intervention</td></tr>
</table>

Altogether, across the four areas, there is evidence of numeric standards not being (fully) applied for *some* users and on *some* occasions, as long as this appears appropriate and doable at street level. Thus, in the terms of organizational institutionalism, institutional work is widespread. However, in the long run, this may have repercussions on the morale of the affected organizations. Thus, devolving responsibilities upon other sectors can turn out to be a boomerang, as clients often return to the same hospital or family support scheme – which makes staff experience recurrent frustration. Furthermore, much of what is accomplished when coping with numeric rationalization proceeds informally; this creates enduring stress as it often comes with work overload and requires activities going beyond one's job description. *Organizational improvisation* appears to be a 'silver bullet' in many instances, yet the solutions found are rarely sustainable.

This experience sits uneasily with rising expectations concerning the quality of human service provision (see section 1), also because existing output control schemes do often not satisfy these expectations. The eldercare sector is a case in point: A sophisticated monitoring tool meant to rank service providers according to measured service outputs was – some years after its creation – strongly challenged by experts and abandoned thereafter. Public policies frequently react to publicly discussed shortcomings by sporadic programs meant to inhibit some of the effects produced by numeric rationalization. These programs contain measures for earmarked purposes and limited periods of time. Examples include the temporal injection of extra-money to re-staff hospitals; the promotion of a new low-skilled workforce to enrich mainstream eldercare with personal assistance; support schemes for selected target groups among jobseekers; and the provisionary admission of a new occupation (such as a 'family midwife') to fill existing gaps in child protection services. This mode of compensation can be labelled '*institutional improvisation*'. It responds to disquietude arousing within the public sphere, and sometimes to industrial action taken by the affected professions. It is striking, however, that regulatory changes setting *limits* to numeric rationalization have remained an exception thus far.

4. Conclusions: Governing by Numbers in the Contemporary Welfare State – An Unfinished History

Dealing with the 'governing by numbers' in current Western welfare states, this article has reviewed evidence from the German human service industry to shed light on both the implications of this movement and responses to the latter. The findings suggest that numeric rationalization deeply affects the arrangement of services that are meant to ensure a decent development of human beings over their life course. Steering by proxies, standardized output evaluation, and efforts to calculate the incalculable (e.g., the time needed to support a person with complex problems) are widespread in both public management and the organization of service delivery. Penetrating the operational core of relevant settings, this movement makes instrumental rationality crowd out what has been referred to in this article as 'human development rationality'.

Concerning both regulation and organizational action, the official mantra today is '*let's count and manage*' service provision by using quantitative indicators wherever possible. In so doing, public management (as rolled out by sickness funds or the labour market administration, for instance) 'blanks out' complexities inherent to the production process in the human service industry. Facing such policies, provider organizations often display an opportunistic behaviour, e.g., when incorporating the target regime, embarking on business reengineering, and committing themselves to deliver 'value for money'. In this vein, the implicit motto is: '*let's forget the rest*' of what is crucial for pursuing 'human development rationality' – that is, the role of intangible elements in the process of social intervention; the fact that major outcomes of human service provision are hard to measure; and the insight that means-end relations prove fuzzy in many situations. Under these circumstances, street-level authority employed for dealing with complex conditions in human development tends to become constrained, since public policies and administrative steering models, on the one hand, and management devices within organizations, on the other, discipline those providing services on the ground.

All this is a cross-sectoral pattern, notwithstanding some gradual differences between the areas considered above. Interestingly, however, there are pressures to avoid hard implications resulting from this development, and these pressures appear in both the public sphere and organizational settings. On either side, perceived shortcomings provoke action to mitigate consequences of the 'governing by numbers'. Attempts to compensate for what numeric rationalization cuts off from 'human development rationality' are multi-faceted. Thus, the informal bending of formal prescriptions is widespread, with *organizational improvisation* being the rule rather than the exception. Moreover, to respond to (publicly) discussed failures and related disquietude, social (and healthcare) policies resort to *institutional improvisation* – that is, ad-hoc programs meant to alleviate the aforementioned crowding out effect. The result of this twofold improvisation, however, is permanent strain on those expected to organize or provide human services properly.

In the light of the social theory reviewed in the first section of this article, things appear quite intricate. Throughout the public sphere (and supposedly among the wider citizenry), human development (or social reproduction) is still viewed as an agenda that *differs* from economic instrumentalism. Typical services are more than ever expected to be delivered in an *effective* way, at *any* rate and (often) for *any* citizen. At the same time, numeric rationalization is understood as a way to make this expectation come true, with the contemporary perfectionist 'zeitgeist' promoting the idea of *evidenced* performance, similar to the one used for private businesses. This is a major gateway through which the rationale embodied by the (capitalistic) economic system finds its way into the human service industry. Aside from commercial interests in taking over part of that industry, it is a perfectionist (world-) culture spilling over to all societal sectors that encourages the business-like managing 'by numbers' within both public administration and major provider organizations. That said, the ensuing results do not always chime with popular expectations influenced by the concept of 'human development rationality'. Thus, additional action is required to meet such expectations. Yet as this action is often confined to provisionary adjustments at organizational and institutional level, it remains an unfinished endeavour in many instances.

All this reflects *blurred boundaries* between societal sectors or systems in a configuration in which the interplay of references moving from one (social) system to another proves asymmetric overall (Bode 2012a; forthcoming); concerning the kind of rationality shaping relevant day-to-day operations, the capitalistic economy impacts on other systems more substantially than *vice versa*. Under these conditions, it seems that the two modes of improvisation depicted above prove critical to the maintenance of functional differentiation within Western societies. Disruptions are difficult to avoid, as the coping behaviour at provider level can never be taken for granted, and because institutional improvisation is anything but sustainable. Thus, welfare arrangements become unstable and volatile as a matter of principle. Put in a nutshell: asymmetric functional differentiating with blurred boundaries makes human service provision less reliable – which is in stark contrast to the actual promise associated with the 'governing by numbers'.

Sociologists are tempted to explore *reasons* behind this overall development in a Western society like Germany. At the risk of oversimplification, one may speculate that is has been the radicalization of numeric rationalization *within the economic system* that had a critical impact on the power of that system to impose its standards on other societal sectors. At least, what is referred to as shareholder (or financialized) capitalism has come with a much higher pressure on institutions meant to protect citizens against the vicissitudes of the market economy (Morgan 2016; Tridico 2017). It coincides with a growing disengagement of the economic elites (Hartmann 2013) who seem ever less willing to accept the logic of 'human development' being dominant and politically endorsed in some societal sectors. Cultural change among the citizenry may have played an important role as well, as major sections of the human service industry are affected by rising 'consumerism' and a 'market hype' seducing lower and higher-middle class populations at global scale (Bauman 1998; Fevre 2017). Thus, it is the encounter of changes in the political economy and in the cultural fabric of late modern capitalism that can be assumed to stimulate the dynamics depicted in this article.

However, while numeric rationalization has strong back winds for some time now, tensions are palpable between the promise of perfectionism inherent in the 'governing by numbers' agenda, on the one hand, *and* the irritating experience of the welfare state becoming less sensitive to basic requirements of human development and social reproduction, on the other. This experience seems to stir up countervailing forces, and what has been portrayed as organizational and institutional improvisation in this article is one expression of this. Hence, concerning the 'governing' of human service provision, the struggle between instrumental rationality and modern ideas of human development will go on, with no end of history on the horizon.

References

Aiken, Mike, and Ingo Bode. 2009. Killing the Golden Goose? Third Sector Organizations and Back-to-Work Programmes in Germany and the UK. *Social Policy & Administration* 43 (3): 209-25.

Alexander, Jeffrey. 1997. *Neofunctionalism and After.* Oxford: Blackwell.

Alliot, Anthoney, and Charles Lemmert. 2014. *Contemporary Social Theory: An Introduction*. London: Routledge.

Bartl, Walter, Christian Papilloud and Audrey Terracher-Lipinsky. 2019. Governing by Numbers - Key Indicators and the Politics of Expectations. An Introduction. *Historical Social Research* 44 (2): 7-43. doi: 10.12759/hsr.44.2019.2.7-43.

Batty, Elaine, and John Flint. 2012. Conceptualizing the Contexts, Mechanisms and Outcomes of Intensive Family Intervention Projects. *Social Policy & Society* 11 (3): 345-58.

Bauman, Zygmunt. 1998. *Work, Consumerism and the New Poor*. Buckingham. Open University Press.

Baumol, William J. 2012. *The Cost Disease. Why Computers Get Cheaper and Health Care Doesn't*. New Haven & London: Yale University Press.

Bechky, Beth A. 2011. Making Organizational Theory Work: Institutions, Organizations, and Negotiated Orders. *Organization Science* 22 (5): 1157-67.

Billis, Daniel. 1984. *Welfare Bureaucracy. Their Design and Change in Response to Social Problems*. London: Heinemann Educational Books.

Bode, Ingo. 2010. Towards Disorganised Governance in Public Service Provision? The Case of German Sickness Funds. *International Journal of Public Administration* 33 (2): 172-81.

Bode, Ingo. 2012a. Welfare Markets in Retirement Provision and Elderly Care: Two Stories, One Culture. In The Marketization of Society, *Working paper* of the research network "Welfare Society", University of Bremen, 2012, 65-80, <https://welfare-societies.de/uploads/file/WelfareSocietiesConferencePaperNo1_ Schimank_Volkmann.pdf>.

Bode, Ingo. 2012b. Managerialismus gegen Kindeswohlgefährdung? Zum Phänomen berechnender Steuerung in einem unberechenbaren Organisationsfeld, In *Rationalitäten des Kinderschutzes. Kindeswohl und soziale Interventionen aus pluraler Perspektive,* ed. Pascal Bastian, Thomas Marthaler, Ingo Bode and Mark Schrödter, 175-201. Wiesbaden: Verlag für Sozialwissenschaften.

Bode, Ingo. 2014. In Futile Search of Excellence. The 'Muddling through Agenda' of Service-Providing 'Social Enterprises' in Contemporary Europe. In *Social Enterprise: Accountability and Evaluation around the World,* ed. Simon Denny, and Fred Seddon, 196-212. London: Routledge.

Bode, Ingo. 2015. A 'World Culture' of Institutional Ambiguity? Comparing the Reorganization of Hospital Care in Germany and Mexico. *Current Sociology* 63 (3): 411-31.

Bode, Ingo (forthcoming). Alles hybride? Interpenetration und Redifferenzierung in der zeitgenössischen Organisationsgesellschaft. In *Handbuch Organisations-soziologie*, ed. Maja Apelt, Victoria von Groddeck, Raimund Hasse, Uli Meyer, Maximiliane Wilkesmann and Arnold Windeler (online early view). Wiesbaden: Springer VS.

Bode, Ingo, and Taco Brandsen. 2014. State-Third Sector Partnerships. A Short Overview of Key Issues in the Debate. *Public Management Review* 16 (8): 1055-66.

Bode, Ingo, Brice Champetier, and Sébastien Chartrand. 2013. Embedded Marketization as Transnational Path Departure. Assessing Recent Change in Home Care Systems Comparatively. *Comparative Sociology* 12 (6): 821-50.

Bode, Ingo, Joachim Lange, and Markus Märker. 2017. Caught in Organized Ambivalence – Institutional Complexity and its Implications in the German Hospital Sector. *Public Management Review* 19 (7): 501-17.

Böhm, Katherina. 2017. *The Transformation of the Social Right to Healthcare. Evidence from England and Germany*. London: Routledge.

Boltanski, Luc, and Eva Chiapello. 2006. *The New Spirit of Capitalism*. London/New York: Verso.

Boltanski, Luc, and Laurent Thévenot. 2006. *On Justification. Economies of Worth.* Princeton: Princeton University Press.

Breimo, Janne, Hannu Turba, Oscar Firbank, Ingo Bode, and Johans T. Sandvin. 2017. Networking Enforced – Comparing Social Services' Collaborative Rationales across Different Welfare Regimes. *Social Policy & Administration* 51 (7): 1348-66.

Bromley, Patricia, and John W. Meyer. 2017. 'They Are All Organizations': The Cultural Roots of Blurring between the Nonprofit, Business and Government Sectors. *Administration & Society* 49 (7): 939-66.

Considine, Mark. 2001. *Enterprising States. The Public Management of Welfare-to-Work*. Cambridge: Cambridge University Press.

Crouch, Colin. 2011. *The Strange Non-Death of Neoliberalism*. Cambridge: Polity.

Dahler-Larsen, Peter. 2017. Critical Perspectives on Using Evidence in Social Policy. In *Handbook of Social Policy Evaluation,* ed. Bent Greve, 242-62. Cheltenham: Edward Elgar.

Dean, Heartley. 2015. *Social Rights and Human Welfare*. London & New York: Routledge.

Engle Merry, Sally, Kevin E. Davis, and Benedict Kingsbury, eds. 2015. *The Quiet Power of Indicators: Measuring Governance, Corruption, and Rule of Law.* Cambridge: Cambridge University Press.

Espeland, Wendy Nelson, and Michael Sauder. 2007. Rankings and Reactivity: How Public Measures Recreate Social Worlds. *American Journal of Sociology* 113 (1): 1-40.

Faust, Michael, Jürgen Kädtler, and Harald Wolf, eds. 2016. *Finanzmarkt-kapitalismus? Der Einfluss von Finanzialisierung auf Arbeit, Wachstum und Innovation.* Frankfurt/New York: Campus.

Fevre, Ralph. 2016. *Individualism and Inequality. The Future of Work and Politics*. Cheltenham: Edward Elgar.

Frandsen, Ann Kristin. 2010. The Role of Disciplining/translating Accounting Practices in Patient-Centred Care. *International Journal of Public Sector Management* 23 (4): 381-91.

Gilbert, Neil. 2002. *Transformation of the Welfare State. The Silent Surrender of Public Responsibality*. Oxford: Oxford University Press.

Gofen, Anat. 2013. Mind the Gap: Dimensions and Influence of Street-level Divergence. *Journal of Public Administration Research and Theory* 42 (2): 473-93.

Greenwood, Roystin, Christine Oliver, Thomas B. Lawrence, and Renate Meyer, eds. 2017. *The SAGE Handbook of Organizational Institutionalism*, 2nd ed. Newbury Park: Sage.

Hammerschmid, Gerhard, and Anca Oprisor. 2016. German Public Administration. Incremental Reform and a Difficult Terrain for Management Ideas and Instruments. In *Public Administration Reforms in Europe. The View from the Top*, ed. Gerhard Hammerschmid, Steven van de Wale, Andrews Rhys and Phlipppe Bezes, 63-72. Cheltenham, UK: Edward Elgar.

Hartmann, Michael. 2013. *Soziale Ungleichheit – kein Thema für die Eliten?* Frankfurt/New York: Campus.

Hasenfeld, Yeheskel, ed. 1992. *Human Services as Complex Organisations*. Newbury Park: Sage.
Hyndman, Noel, and Marianunziata Liguon. 2016. Public Sector Reforms: Changing Contours on an NPM Landscape. *Financial Accountability & Management* 32 (1): 5-32.
Jackson, Peter M. 2011. Governance by Numbers: What Have we Learnt over the Past 30 Years? *Public Money & Management* 31 (1): 13-26.
Kaufmann, Franz-Xaver. 2001. Towards a Theory of the Welfare State. In *Welfare State Futures*, ed. Stephan Leibfried, 15-36. Cambridge: Cambridge University Press.
Kersten, Paula, Lundgren, Nilsson, Asa, and Charles Sèbiyo Batcho. 2015. Rethinking Measurement in Rehabilitation. *Rethinking Rehabilitation. Theory and Practice*, ed. Kathryn McPherson, Barbara E. Gibson and Alain Leplège, 209-26. Boca Raton: CRC Press.
Klikauer, Thomas. 2013. *Managerialism. A Critique of an Ideology*. London & New York: Palgrave.
Lawrence, Thomas B., ed. 2009. *Institutional Work. Actors and Agency in Institutional Studies of Organizations*. Cambridge: Cambridge University Press.
Lipsky, Michael. 1980. *Street-Level Bureaucracy. Dilemmas of the Individual in Public Services*. New York: Russel Sage Foundation.
Lowe, Toby. 2013. New Development: The Paradox of Outcomes – the More we Measure, the Less we Understand. *Public Money & Management* 33 (3): 213-16.
Marchal, Sarah, and Natascha van Mechelen. 2017. A New Kid in Town? Active Inclusion Elements in European Minimum Income Schemes. *Social Policy & Administration* 51 (1): 171-94.
Martinelli, Flavia, Anneli Anttonen, and Margitta Mätzke, eds. 2017. *Social Services Disrupted – Implications and Challenges for a Crisis-ridden Europe. Cheltenham*. Edward Elgar.
Mau, Steffen. 2017. *Das metrische Wir. Über die Quantifizierung des Sozialen.* Berlin: Suhrkamp Insel.
McKinlay, John B., ed. 1975. *Processing People: Cases in Organizational Behavior.* London / New York / Sydney / Toronto: Holt, Rinehart and Winston.
Meyer, John, John Boli, and George M. Thomas. 1994. Ontology and Rationalization in the Western Cultural Account. In *Institutional Environments and Organizations. Structural Complexity and Individualism*, ed. Richhard W. Scott, John W. Meyer and Associates, 9-27. Thousand Oaks: Sage.
Morgan, Glenn. 2016. New Actors and Old Solidarities: Institutional Change and Inequality under a Neo-liberal International Order. *Socio-Economic Review* 14 (1): 201-25.
Pollitt, Christopher. 2011. Performance Blight or the Tyranny of Light? Accountability in Advanced Performance Management Systems. *Accountable Governance. Problems and Promises,* ed. Melvin J. Dubnick and H. George Frederickson, 81-97. New York: M.E. Sharp.
Power, Michael. 1997. From Risk Society to Audit Society. *Soziale Systeme* 3 (1): 3-21.
Rauschenbach, Thomas. 1999. *Das sozialpädagogische Jahrhundert. Analysen zur Entwicklung Sozialer Arbeit in der Moderne*. Weinheim: Juventa.

Rottenburg, Richard, Sally E. Merry, Sung-Joon Park, and Johanna Mugler, eds. 2015. *The World of Indicators. The Making of Governmental Knowledge through Quantification*. Cambridge: Cambridge University Press.

Sachweh, Patrick. 2016. Social Justice and the Welfare State: Institutions, Outcomes, and Attitudes in Comparative Perspective. In *Handbook of Social Justice Theory and Research,* ed. Clara Sabbagh and Manfred Schmitt, 293-314. New York etc.: Springer.

Schimank, Uwe. 2005. Funktionale Differenzierung und gesellschaftsweiter Primat bestimmter Teilsysteme: Offene Fragen bei Parsons und Luhmann. *Soziale Systeme* 11 (2): 395-414.

Scott, Richard W., and John W. Meyer. 1991. The Organization of Societal Sectors: Propositions and Early Evidence. *The New Institutionalism in Organizational Analysis*, ed. Walter D. Powell and Paul J. DiMaggio, 108-40. Chicago: University of Chicago Press.

Slater, Don, and Fran Tonkiss. 2001. *Market Society: Markets and Modern Social Theory*. Cambridge: Polity Press.

Soss, Joe, Richard Fording, and Sanford F. Schram. 2011. The Organization of Discipline: From Performance Management to Perversity and Punishment. *Journal of Public Administration Research and Theory* 21 (2): 203-32.

Spratt, Trevor, Jochen Nett, Leah Bromfield, Johanna Hietamäki, and Heinz Kindler. 2015. Child Protection in Europe: Development of an International Cross-Comparison Model to Inform National Policies and Practices. *The British Journal of Social Work* 45 (5): 1508-25.

Stake, Robert E. 2006. *Multiple Case Study Analysis*. New York/London: The Guilford Press.

Streeck, Wolfgang. 2012. How to Study Contemporary Capitalism? *Archives Européenes de Sociologie/European Journal of Sociology* 53 (1): 1-28.

Therborn, Goran. 1996. *European Modernity and Beyond: The Trajectory of European Societies 1945-2000*. London: Sage.

Tilbury, Clare. 2007. Shaping Child Welfare Policy via Performance Measurement. *Child Welfare Journal* 86: 115-35.

Trattner, Walter I. 1994. *From Poor Law to Welfare State. A History of Social Welfare in America*, 6th ed. New York: The Free Press.

Tridico, Pacquale. 2017. *Inequality in Financial Capitalism*. London/New York: Routledge.

van der Pennen, Ron, Kim Putters, and Bart Berden. 2015. Imperfect Performance: A Case Study on the Pay-for-Performance Instrument for Physicians in Dutch Hospitals. *Administration & Society* 47 (7): 881-909.

Verbeeten, Frank H. M., and Roland F. Speklé. 2015. Management Control, Results-Oriented Culture and Public Sector Performance: Empirical Evidence on New Public Management. *Organization Studies* 36 (7): 953-78.

Vormbusch, Uwe. 2011. *Die Herrschaft der Zahlen. Zur Kalkulation des Sozialen in der kapitalistischen Moderne*. Frankfurt/New York: Campus.

Vrangbæk, Karsten, John Appleby, Tanja Klenk, and Sarah Gregory. 2017. Accountability through Performance Management? Comparing and Explaining the Institutional Design of Hospital Performance Management Schemes in Denmark, Germany, and UK. *The Ashgate Research Companion to*

Accountability and Welfare State Reforms in Europe, ed. Tom Christensen and Per Lægreid. Aldershot: Ashgate.
Weber, Max. 1930. *The Protestant Ethic and the Spirit of Capitalism* (Translation by Talcoot Parsons). New York: Harper Collins.
Weber, Max. 1978. *Economy and Society. An outline of interpretative sociology*, vols. 1 & 2, ed. G. Roth and C. Wittich. London: University of California.

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