The Dynamics of Inertia: Institutional Persistence and Institutional Change in Telecommunications and Health Care

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MPIFG Discussion Paper 95/3
ISSN 0944-2073
May 1995

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(PSI):	PSI%4505011006::MPI		

Abstract

There is a tendency in the new institutionalist literature to equate institutional inertia with stasis and 'no-change'. Using case studies from the international telecommunications regime and the German health care system, the paper tries to show that this equation is wrong. Inertia does not necessarily prevent institutional change. It can interfere with the replacement of old institutions, but it is compatible with other forms of institutional transformation. Inert structures can be patched up with new structures or transposed to new functions. The paper analyzes *patching up* and *transposition* as distinct modes of institutional change and assesses their potential for adapting institutional arrangements to new environmental conditions. It concludes that inertia should not be contrasted with institutional change per se because inertia allows for and may even be a prerequisite of change.

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In der neo-institutionalistischen Literatur wird die Stabilität von Institutionen oft mit der Abwesenheit jeglicher Art von institutionellem Wandel, mit Stasis, gleichgesetzt. Zwei Fallstudien über das internationale Telekommunikationsregime und das deutsche Gesundheitssystem zeigen, daß diese Gleichsetzung falsch ist. Institutionelle Stabilität schließt institutionellen Wandel nicht generell aus. Zwar erschwert sie Änderungen auf dem Wege radikaler Strukturumbauten, erlaubt aber, etablierte Strukturen in neue Aufgabenfelder zu transferieren oder durch zusätzliche Anbauten aufzurüsten. Das Papier untersucht den *Anbau* neuer und den *Transfer* alter Strukturen als eigene Formen institutionellen Wandels und analysiert deren Folgen für die Adaptivität institutioneller Strukturen. Fazit: Stabilität und Wandel sollten nicht grundsätzlich als Gegensätze betrachtet werden, denn oft ist das eine Voraussetzung des anderen.

Contents*

* Parts of the paper were written while the author was a visiting scholar at the Stanford Center for Organizations Research. I want to thank the center's director Dick Scott for making my stay possible, the center's administrator Lisa Hellrich for making it agreeable and the Max Planck Society for providing the funds. I also want to thank Hilke Brockmann, Adrienne Héritier, Giovan Francesco Lanzara, Susanne Lütz, Philip Manow, James March, Renate Mayntz, Fritz W. Scharpf, Uwe Schimank, and Raymund Werle for their comments on earlier drafts.

1 Introduction

In recent research it has become common to denounce institutions for their inertia. Institutions, the argument goes, enhance static efficiency but reduce dynamic efficiency, they help actors deal with given problems but make it difficult for them to adjust to new ones, they facilitate coordination but complicate adaptation. This view is popular in sociology (e.g. Hannan / Freeman 1977; 1984) and economics (e.g. North 1990) and is constitutive for large parts of the New Institutionalism in political science (e.g. Skowronek 1982; Krasner 1988; March / Olsen 1989)[1]. Many 'new institutionalists' take it as a matter of faith that the efficiency of institutions declines over time. They are all concerned about how institutions create order, how the increasing returns to order induce institutional inertia, and how institutional inertia produces an ever increasing mismatch with the environment. Their favorite cases testify of institutions outliving their initial conditions, their founders, and eventually their usefulness. With the passage of time all institutional virtues seem to turn into vices[2].

This notion has met with some criticism lately. Nobody disputes that institutional inertia can prevent the effective adaptation to new environmental conditions – the fate of the socialist regimes in Eastern Europe is a vivid example – but some scholars argue that it does not always do so. They criticize the New Institutionalism's "crypto-deterministic" (Mayntz / Scharpf 1995: 9) assumptions about the extent to which political outcomes are determined by institutional structure, and they contend that even in the context of stable structures actors often enjoy considerable leeway. Institutions may be rigid and unresponsive, but they normally leave some room for policy change and adaptation (Thelen / Steinmo 1992: 18).

However, even if institutions do not tie actors into straightjackets, institutional inertia may still be a threat to adaptation. It restricts policy change to the options granted by prevailing structures. If there are no effective options in the institutionally defined feasible set, adaptation is impossible without institutional

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1 See also the review articles by Cammack (1992), and Thelen / Steinmo (1992) and the references therein.

2 This notion is reflected in statements like, for example, "institutions and procedures once created to serve socioeconomic development now appeared as self-perpetuating perversions of that purpose" (Skowronek 1982: 40). Paul Cammack concludes that in general "new institutionalists are concerned with disparities between environmental and institutional change ... They address the tendency for the efficiency of institutions to decline over time, and explore the consequences" (Cammack 1992: 401).

change. Hence, the important question becomes whether institutional inertia actually prevents institutional change.

The New Institutionalists assert most emphatically that it does. According to them, inertia is synonymous with 'no-change'. Change, in this perspective, requires a radical break with the past, abandoning old routines, removing outmoded institutions, and switching over to new structures. It is premised on destruction, and unobtainable unless inertia can be overcome. History appears as a succession of alternating phases of inertia and change. *Normal history* is described as being governed by inertia. Institutions are relatively stable and invariant. They pattern politics and political outcomes. All neo-institutionalist arguments apply. Interspersed in normal history are episodes of *crisis* and *drama*, where some environmental shock temporarily overpowers inertia and institutional persistence. For a short moment in history the logic of the game switches from "'Institutions shape politics' to 'Politics shape institutions'" (Thelen/ Steinmo 1992: 15). Major institutional change becomes possible. Once the moment is over, however, inertia reigns supreme again and conserves whatever institutional change was made until the next crisis comes.[3]

The most sophisticated recent elaboration of the concept of discontinuous institutional change was provided by Stephen Krasner (1984; 1988), who draws an analogy with the 'punctuated equilibrium' model from evolutionary biology. Structure, according to this model, is "primary and constraining, with change as a 'difficult' phenomenon, usually accomplished rapidly when a stable structure is stressed beyond its buffering capacity to resist and absorb" (Gould 1982: 383). Change is the exception rather than the rule, but once it occurs it is likely to be radical and disruptive. The imagery is one of critical junctures connecting long stretches of institutional continuity.[4]

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3 To be sure, some scholars have dealt with non-disruptive institutional change. But the thrust of their argument has typically been that this kind of change is fairly ineffective in terms of adaptation. James March and Johan Olsen write, for example, "[t]he political institutions we have described ... allow for incremental drift, but they constrain incrementalism in a way that tends to produce relatively long periods of considerable stability punctuated by rather substantial, rather abrupt changes" (March/ Olsen 1989: 170).

4 For the punctuated equilibrium concept see Gould (1982). The fundamental assumptions of Krasner's model are implicit in the many empirical case studies of the 'reform necessary but not forthcoming' type (e.g. Skowronek 1982) or the 'different countries, same pressures, non-convergent policies' variety (e.g. Hall 1986; Scharpf 1991), which were inspired by the new institutionalism. Certainly, the notion of institutional evolution as a discontinuous process is much older than the New Institutionalism. See e.g. Schumpeter (1934) and Crozier (1964).

Although the punctuated equilibrium model conveys important insights into the dynamics of institutional development, it clearly doesn't cover the whole story. One wonders, for example, why episodes of *crisis* and *drama* do not occur much more frequently. In contemporary societies cultural, technical, economic, and political variables seem to be changing rapidly and turbulently, but cases where institutions are 'stressed beyond their buffering capacity to resist and absorb' are rare on any account. Even violent changes in environmental conditions do *not* usually result in institutional breakdown. If the punctuated equilibrium model applies only to such supreme events in history as the French or the Russian Revolution, one should better look for a theory that explains what happens in between – it is hard to believe that there is no institutional change and adaptation going on in the interstices. On the other hand, how should change and adaptation proceed in the presence of inertia? Are not inertia and change mutually exclusive?

This paper hopes to show that there are forms of institutional change which are compatible with inertia. It looks at two empirical examples, the international regime for standard setting in telecommunications and the German health care system, which both were adapted during more than 100 years of history to varied and at times fundamental changes in environmental conditions without any institutional break, switchover, or revolution.[5] Adaptation was premised on the preservation of institutional stock. Institutional structures, once established, were not replaced but supplemented and extended by new structures or used in new and innovative ways. Their structural context was enriched, their functional references changed; they were patched up and transposed.

Institutional change by *patching up* and *transposition*[6] is very common. Institutional arrangements often display a strong tendency to gain in complexity over time, and much of political and bureaucratic life consists of attempts to tackle new problems by the creative use of old institutions. Nevertheless patching up and transposition have largely been ignored in the new institutionalist literature, with the result that inertia has been identified with no-change. This paper attempts to show that the relation between inertia and change is more nuanced.

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5 The two cases are drawn from empirical research which was recently completed at the Max-Planck-Institut für Gesellschaftsforschung, Köln. For the standard-setting case see Schmidt / Werle (1995) and Genschel (1995). For the health care case see Rosewitz / Webber (1990); Alber / Bernardi-Schenkluhn (1992) and especially Döhler / Manow-Borgwardt (1992).

6 The term 'transposition' was adapted from Sewell (1992: 17-18).

The ways in which institutions are changed and adapted reflect the ways in which institutions resist change and channel adaptation. Hence, the paper starts with a section on inertia (section 2). Why are institutions inert in the first place? Three sources of institutional persistence are briefly reviewed: sunk costs, uncertainty, and political conflict. Section 3 and 4 investigate ways of institutional change which are compatible with inertia. Recounting the cases of the international telecommunication regime and the German national health care system respectively, they investigate how patching up and transposition work and why they often take precedence over change by switchover. Section 5 concludes with some general speculations on inertia, change and adaptation.

2 Three Sources of Institutional Inertia

The new institutionalist literature has dealt very thoroughly with the problem of institutional inertia. It discusses a wide range of mechanisms which contribute to institutional persistence; therefore, I will not try to give a complete survey. Instead I concentrate on three very common, very simple, and, as I would argue, very powerful sources of inertia: sunk costs, uncertainty, and political conflict.

Sunk costs

Institutions cause large initial set-up costs. Actors have to learn rules, codes, and conventions. They have to develop particular skills, competencies, and tools, establish specialized personal contacts, and sometimes they even have to set up extra physical infrastructures. All these assets take time, money and effort to built up. Once they are in place, however, they can potentially be used for a very long time. They represent a durable form of capital. However, this capital tends to be institution-specific to some degree. It cannot easily be transferred. Infrastructures built to the specifications of one institution have to be remodeled in order to fit the specifications of another. Institutional experience gathered in one institution is worthless in the context of another. Codes which apply in one institution don't apply elsewhere, etc. The specificity of institutional capital makes a switch of institutions costly. The capital tied to an old institution cannot be shifted to the new institution and has to be written off; safe returns are lost. The capital investment for the new institution has to start from scratch. Fresh resources have to be spent, and it takes some time and transitory confusion until the new institution is fully operative. Given these 'evils of transition' it is often rational to stick to old institutions even after new and poten-

tially better ones have become available (Stinchcombe 1968: 120-123; Scharpf 1987: 142-143).

Uncertainty

In a world of bounded rationality and limited attention, the knowledge about institutional choices is necessarily incomplete. Often it is difficult to even conceive of alternatives to the institutional status quo. But even if models of alternative institutions are available, their effects are much more difficult to predict than the effects of given institutions. It is unclear how they will perform, when they will be fully operative, and how they will affect the relative position of different actors. All knowledge about them is secondhand or purely conjectural, while the old institutions – with all their advantages and faults – are known by experience. As a result, any changeover from an old to a new institution involves an element of uncertainty and risk. If the stakes are high and there is some *risk aversion*, actors may stick to their old institutions even if they suspect that there are better alternatives (Heiner 1983; Shepsle 1986: 75).

Political conflict

Institutions often have a distributive bias which systematically makes it easier for some actors to achieve their goals than for others. This potential for partiality makes a switch to new institutions prone to conflict. The beneficiaries of the status quo have to be bought off or overpowered, and the proponents of a switch have to agree on a common design. Actors have to mobilize followers, forge coalitions, settle disputes, and hedge against strategic risk. All these actions are costly, time-consuming, and not necessarily successful – *transaction costs* which are avoided unless actors believe that the advantages of a switch are fairly substantial. They insulate institutions from dissatisfaction and provide them with a measure of stability that they would never enjoy in a transaction cost-free world (Machiavelli 1965: 33; Shepsle 1989: 144).

Sunk costs, uncertainty, and potential conflict put a premium on institutional conservatism. They reduce the attractiveness of institutional alternatives and thus act as a barrier against a switchover to new institutions. Over time these barriers may grow so high as to make escape virtually impossible. The actors become 'locked-in' to their old institutions, compelled to reenact them over and over again. Institutions turn into what Hegel called 'second nature'. Despite

their man-made origin they are perceived as something that is exogenously given and resistant to willful change (Offe 1992: 15-16).[7]

However, as the following case studies will show, this is not the end of the story. Inertia does not restrain institutional change per se. Even if the costs and risks involved in removing and replacing given structures are prohibitively high, actors can still patch these structures up with new structures or transpose them to new functions.

3 Patching Up the International Regime for Standard Setting in Telecommunications

3.1 The Case

Until very recently telecommunications was a 'national' technology. It was a national technology in a political sense because it was tightly controlled by the state. In some countries the state ran the telecommunication system itself through a public Post, Telegraph and Telephone Administration (PTT); in others, like the US, the system was private, but the state monitored, supervised, and regulated its operation. Telecommunications was a national technology in an organizational sense because its production and operation were arranged on a strictly national basis. Both functions were supervised and managed by the national PTT. It held a monopoly on networks and services and closely controlled the work of a small circle of national equipment suppliers. Although legally independent, the suppliers were closely tied to the PTT by a mixture of relational contracts, 'buy national' policies, and lack of export opportunities. Finally, telecommunications was a national technology in a strictly technical sense. Telecommunication networks were coextensive with national territories. They ended at national borders and had distinctly national traits. Each was built to national specifications so that equipment could not easily be ported from one network to another. There was almost no trade in equipment (and none at all in services) (Cowhey 1990; Schneider 1991).

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7 Brian Arthur has modeled how actors who make choices in the presence of positive feedback may become locked into one choice without any chance of escape (Arthur 1988, 1989; see also David 1985). For a straightforward application of this model to the issue of institutional persistence, see North (1990, Chap. 11).

The only interaction between the self-contained national telecommunication systems was through the conjoint provision of international services. PTTs had to get together, hook up their networks at some international network interconnection point and decide on the administrative, technical and legal rules of cooperation. In principle each pair of countries could have got together on a bilateral basis and agreed on a separate set of rules. But it was realized very early on that the application of common rules would significantly reduce bargaining costs and speed up the development of international telecommunications (Hutcheson Reid 1985).

The first major attempt at multilateral coordination was made in 1865. Delegates from twenty European countries came together in Paris, drafted an 'International Telegraph Convention', and set up an intergovernmental organization, the 'International Telegraph Union' (ITU),[8] to periodically review the convention and adapt it in light of changing circumstances. Intergovernmentalism seemed to be the appropriate framework since telecommunications was politics even if it was low-politics, and for quite some time intergovernmentalism worked rather well. However, once international telephony was introduced and telecommunications became more complex and dynamic, some problems of the intergovernmental approach began to show. Diplomatic conferences got bogged down in technical and administrative detail. The complexities of intergovernmental bargaining interfered with the swift adaptation of rules to the evolving state of technology (Codding / Rutkowski 1982).

Relief came from the outside. In the early 1920s six European PTTs established a committee outside the framework of the ITU, the 'International Consultative Committee on Long-Distance Telephony' (CCITT),[9] which was to advise the PTTs on the development of international telephone connections. The committee's charter was to study the technical, operational and tariff aspects of international connections and to issue standards for their regulation. These standards were non-binding in a legal sense, so that most of the procedural safeguards that dragged down decision processes within the ITU could be avoided. They just provided focal solutions that the member administrations could comply with voluntarily (Chapuis 1976).

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8 In 1932 the name was changed to 'International Telecommunications Union'.

9 The original name was CCIF. Only after the committee was merged with its sister 'International Telegraph Consultative Committee' (CCIT) in 1956 was it called CCITT (International Telegraph and Telephone Consultative Committee). In 1992 it was given yet another new name, the ITU Telecommunication Standardization Sector (ITU-T). For sake of consistency, I will call it CCITT throughout the text.

In 1925 the CCITT was absorbed into the ITU structure as a separate subdivision, relieving the ITU intergovernmental conferences from much of their workload. The conferences could concentrate on the provision of a legal framework for international telecommunications and leave to the CCITT all the technical and administrative details that had to be solved in order to make international telecommunications actually happen. This division of labor worked rather well until the 1970s when a series of technical and political changes set in which eventually undermined the very basis on which the CCITT was operating: Telecommunications converged with computer technology; the telecommunications industry was deregulated and liberalized (Cowhey 1990).

The compound effect of these changes was to subvert the central position of the PTTs and to turn telecommunications into a transnational technology. The PTTs lost their monopoly on network provision and service supply and increasingly had to compete – on a more or less restricted basis – with private carriers and service suppliers. Often they lost their public status as well, being privatized and turned into regular business corporations. Finally, they lost control over equipment supply. Due to the computerization of telecommunications, R&D costs skyrocketed, causing a spate of cross-border mergers. Manufacturers were forced to turn to the international market to increase sales. As a consequence, the ties to the national PTT became loose. The industry became more transnational in character. National regulations were supplanted by international rules, such as, for example, EU directives. Equipment production, network operation, and service supply were increasingly arranged by multinational actors. Networks grew to transnational dimensions. The technology, which used to feature strong national peculiarities, became more alike across countries, but more diverse across functions and proprietors. While, say, IBM networks basically look the same all over the globe, the differences compared to DEC networks are striking. The variety of services has increased manyfold (Genschel/Werle 1993).

The CCITT's institutional skeleton fitted the new environment badly:

– Its membership rule admitted only PTTs as full members, which was sensible as long as the PTTs had full command over telecommunications. Once the PTTs lost this command, however, the rule was too restrictive and systematically excluded information, interests, and concerns which were relevant for the successful standardization of telecommunications.

– The structural and procedural rules were modeled after the pattern of intergovernmental organizations. The highest decision making organ was a plenary assembly of the member countries (normally represented by

their PTT), which met periodically every four years to pass standards and to draw up the agenda for future standardization. Between the assembly meetings, 'study groups' of technical experts from the PTTs and, in an advisory capacity, from industry and academia did the technical work. Decision making required consensus. This set up worked fairly well as long as standardization problems were few in number, easy to predict, and technically well understood. It made the CCITT liable to friction, delay, and uninformed decisions, however, once the new telecommunications environment generated ill-defined standard setting problems in great quantities at short notice.

– The CCITT's scope rules focused attention on the compatibility problems which occur at the network interconnection points between national networks. However, in the new, more decentralized and transnationalized environment, standards are needed not only to connect but also to constitute networks, not only to coordinate 'nations' but to coordinate 'organizations' as well.

Since the 1970s the CCITT was under constant pressure to reform its basic structure. However, reform proved to be difficult. The most obvious problem was political. Opening the committee for new members implied a loss of power for the old members, i.e. the PTTs. The PTTs used the CCITT as "a virtual telephone cartel" (Cowhey 1990: 176) to reinforce their monopoly position and consequently showed little interest to share it with actors like computer manufacturers, large user companies, or private service suppliers whose very objective it was to undermine the monopoly. Yet, as deregulation spread to more and more countries, the common PTT front started to unravel. During the late 1980s, the prospects for reform improved and the organization made some serious efforts to revamp its structure – with meager results. The names of structures were changed, including the very name of the CCITT.[10] Some new structures were added, such as, for example, an advisory committee for strategic planning.[11] But basically the CCITT's set-up remained unchanged. While this caution was due in part to the reservations of some developing countries, the more important factor behind it was that even the proponents of reform had no design for radical measures. There were basically two reasons for this. One was that the technological and regulatory changes which put the CCITT under pressure were complex and confusing. It was obvious that the old CCITT structure no longer fit. But it was unclear what an ideal replacement structure should look like. The old structure gave rise to a host of problems, but nobody

10 See footnote 9.

11 The Telecommunication Standardization Advisory Group (TSAG).

had a grand vision of how to address them with one bold strike of reform. Consequently the attention focused on removing bottlenecks rather than basic flaws. The second reason was that the CCITT worked, even if not entirely satisfactorily. It had established a good reputation among engineers. It had a pool of thousands of people in different countries who had worked for it for years, who knew the rules, and who knew how to apply them creatively (i.e. how to cut through red tape). Reputation and reliability were valuable assets and actors were hesitant to give them up lightly, especially since they were uncertain if they could get anything better in return.

Despite all good reasons for not reforming the CCITT, the result was that certain critical standard setting functions remained undersupplied. As a consequence, some actors tried to provide these functions on their own. Experimentation concentrated on two issue areas, computer communication and network integration.

The development and application of computer communication was mainly driven by the computer industry, not the traditional public telecommunication establishment, represented on the CCITT. As a consequence, the CCITT was fairly unresponsive to the demands of this new field. It lacked sensitivity for the specific coordination problems involved, and it lacked the expertise to solve them. The computer industry complained but also took action to offset this neglect. Most importantly, it established a host of new standards organizations[12] which were specifically designed to work on problem areas where the CCITT could not or would not move. All of these moves were organized decentrally by the actors immediately involved. There was no central coordination or control. However, mutual monitoring and imitation introduced a considerable degree of uniformity. All these new organizations are rather close in setup and outlook. In general they are smaller than the CCITT, have private status, work with less administrative overhead and hierarchy, and experiment with new structural and procedural features such as project teams[13] and contribution-dependent voting schemes.[14]

The problem in network integration was that by losing their monopoly on network provision, the PTTs also lost their ability to guarantee the technical coherence and integrity of the network infrastructure. Compatibility and fit

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12 Examples include organizations as diverse as the American-based Corporation for Open Systems (COS), the European Workshop for Open Systems (EWOS), and the Internet Society (Isoc).

13 E.g. EWOS.

14 E.g. COS.

which hitherto had been controlled hierarchically were suddenly at stake. One obvious way to provide for these functions was by standards. While the CCITT had the expertise to write these standards, it was hardly suited for the task. The standards in question had to be compatible with the installed network base, which, at least in its older parts, differed from country to country. Hence, different standards were needed in different regions, and the CCITT being a global organization seemed patently unfit to provide them. Rather than banking on the CCITT to do the job, governments therefore called upon industry to set up national or regional standards organizations. Out of this grew a new tier of regionally based standards organizations. The most important are the T1 committee in North America,[15] TTC in Japan,[16] and ETSI in Europe[17] (Hawkins 1992).

The proliferation of standards organizations caused considerable concern at the CCITT. It seemed to mark obsolescence and impending insignificance (Besen / Farrell 1991). However, after the dust had settled it turned out that the new organizations stabilized the CCITT rather than uprooting it. They specialized in making up for the CCITT's particular 'inefficiencies' and thus shielded it from the potentially damaging consequences of its inability to remove these deficiencies on its own. Their establishment worked as a functional substitute for internal change and, hence, made internal change unnecessary. The CCITT didn't become obsolete. It just changed its function. From a monopoly standards provider it mutated into an arena where decentralized standard setting initiatives are coordinated and synchronized.

3.2 Discussion

The case of the international regime for standard setting in telecommunication shows that adaptation is possible without institutional disruptions. When the advent of international telephony threatened to overtax the ITU's legalistic mode of operation, a crisis was avoided not by changing the mode of operation but by setting up a new additional structure, the CCITT, which relieved the ITU of part of the burden. Likewise, when the dramatic technological and regulatory changes of the 1970s and 1980s put pressure on the CCITT, the pressure

15 American National Standards Institute Accredited Standards Committee for Telecommunication - One.

16 Telecommunications Technology Committee.

17 European Telecommunications Standards Institute.

was diverted not by changing the CCITT's basic set-up, but by supplementing the CCITT with new organizations which specialized in covering up its weak spots. Adaptation was achieved by patching up.

The process of patching up displays some features of what Braybrooke and Lindblom (1963) called the strategy of *disjointed incrementalism*. Most importantly, it was oriented remedially in the sense that it aimed at relieving specific bottlenecks and deficiencies of the CCITT rather than trying to replace it. Moreover, patching up proceeded decentrally in that all initiatives to make up for the deficiencies of the CCITT by establishing new organizations were organized locally. There was no central coordination. However, why did patching up take precedence over a switchover? Why was the CCITT supplemented by new institutions rather than thoroughly reformed? The answer seems to be that patching up was less costly, less risky, and less politically divisive.

Sunk costs

A switchover to a new institution (or a thoroughly revamped 'new CCITT') would have forced the actors to write off the investments which were tied to the old CCITT structure. Patching up, by contrast, protected the sunken investments and thus reduced the transition costs of adaptation.

Even if it had been successful, a switchover from the CCITT to an entirely new structure would have caused considerable transition problems. The replacement of old structures causes noise and confusion and frustrates attempts at business as usual. The actors have to gather new experience, develop new skills, and acquire new tools before they can go back to normal. Therefore, a new standard setting structure would have come at the price of a more or less extended period of experimentation, improvisation and low performance (see Scharpf 1987: 142). Patching up reduced transition problems because it didn't disrupt the internal structures and processes in the CCITT. The CCITT continued to work almost unperturbed while the patching up proceeded. Minor transition problems did occur because patching up diverted some attention and resources away from the operation of the CCITT, but major disruptions in the production of standards were avoided.

Uncertainty

Patching up the CCITT generated less uncertainty than a switchover to a new institution. A switchover would have gambled all the safe achievements of the CCITT for the uncertain benefits of a new institution. In the best of cases this

could have resulted in a truly optimal institution. In the worst case it would have resulted in a new arrangement even worse than the CCITT. Since the actors were risk-averse, dreading the worst outcome more than they valued the best, and since they lacked a theory on how to achieve the best outcome without risking to end up with the worst, they were biased against a switch (see Luhmann 1968).

Patching up was less radical. It didn't remove the CCITT's structural ills. It just tried to compensate for them. Because it premised all changes on the continuance of the CCITT, it promised less startling improvements. But it also risked less damaging losses. It reduced the chances for optimal adaptation, but offered the security that even in the worst case the new structural arrangement would not do much worse than the CCITT on its own (see Braybrooke / Lindblom 1963: 66-68; Heiner 1986: 237-242; Czada 1994: 254-255).

Political conflict

For two reasons, patching up the CCITT caused less political conflict than a switchover to a new organization. First, patching up proceeded decentrally. Actors who felt intensely about some specific deficit of the CCITT went ahead and set up a new organization to ameliorate it. They didn't have to wait for everybody else to come along, which greatly reduced the bargaining problems involved. Potential opponents didn't have to be placated. They could just be left out in the cold.

Second, patching up didn't challenge the CCITT's political foundations. The creation of new additional standard organizations did not call into question the claims and privileges which were granted under the CCITT structure. It just established new claims. Certainly these claims were only partially compatible with the claims embodied in the CCITT. But since they were lodged in separate organizations, these incompatibilities were relatively easy to tolerate, overlook, or gloss over. Latent conflicts largely remained latent. A switchover, by contrast, tends to make latent conflicts virulent because it forces actors to spell out their divergencies and accommodate them in one comprehensive settlement. Patching up diffuses conflict by allowing for inconsistency. Switchovers accentuate conflict by forcing consistency (see March 1994: 194-195).

4 Transpositions in the German Health Care System

Section 3 has shown how inert structures can be adapted to new circumstances by patching them up with additional structures. This section will show how stable structures can be adapted to evolving conditions by transposing them to new functions.

4.1 The Case

The Sickness Insurance Law of 1883[18] introduced compulsory health insurance in Germany. It built upon a preexisting network of voluntary sickness funds, and charged them with providing health care for their members. The terms on which the funds were to cooperate with physicians for this purpose remained unspecified, however. This left the funds free to fully exploit their near monopsony power in the market of health care services. The physicians were at a disadvantage. With each of them acting on his own, their bargaining position was weak. Their economic fortunes declined (Stone 1980: 44).

The balance of power tipped when the physicians started to unionize. After the turn of the century a surge of physicians' strikes undermined the sickness funds' dominant position and shattered the foundations of the health care system. In 1913 the government stepped in. Public officials met with representatives from both sides and mediated the so-called 'Berlin Agreement,' which established formalized procedures for bargaining and conflict resolution. Three committees were set up on which physicians and sickness funds had equal representation: an Admission Committee[19] to supervise the admission of doctors to fund practice, a Contract Committee[20] to oversee contracting between physicians and funds, and a Central Committee[21] to deal with all conflicts which couldn't be settled by the other two committees.

The Berlin Agreement expired in 1923, while Germany was being hit by inflation. The incomes of physicians suffered, the sickness funds' revenues lost value, and both sides tried to shift the burden of adjustment on to the other. The prospects for a renewal of the agreement were bleak. Again the govern-

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18 Krankenversicherungsgesetz.

19 Registerausschuss.

20 Vertragsausschuss.

21 Zentralausschuss.

ment moved in to limit the damage. By emergency order it turned the voluntary arrangements of the Berlin Agreement into law. The Central Committee was now called the Imperial Committee of Physicians and Sickness Funds and took on a compulsory character. The committee's decisions were elevated to law-like status and its scope was greatly expanded. While formerly responsible only for the settlement of conflicts which arose in the course of implementing the Berlin Agreement, it was now charged with reviewing, revising and refining the agreement itself. From arbitration it was pushed into lawmaking.

It was mainly for two institutional reasons that the new Imperial Committee did not succumb to the burden of its job. One reason was the participation of government officials. The presence of the state as a third party made it possible to break deadlock through coalition building. Since both physicians and sickness funds wanted to keep the state out of their dealings, lest they should relinquish control to it, the premium on accommodation rose. The 'shadow' of the state civilized the conflict between both sides and rendered it more manageable (see Scharpf 1993: 145). The other reason was that the committee members were protected from pressure and reprimand. Participation in the committee was regarded as a public office. Participants were free of instructions. They were treated as 'disinterested experts,' obliged only to the commonweal of the health care system. While certainly this legal fiction did not entirely drive out factionalism, it nevertheless diluted it considerably. It forced actors to couch their demands in universally acceptable arguments and thereby subtly softened them. Discussions were framed as technical deliberation rather than political bargaining. The 'de-politicization' of the committee was made easier and more plausible when it gradually extended its reach into the material regulation of medical services by, for example, issuing guidelines on drug prescription, and the use of 'electrophysical' methods in medical therapy.

The Imperial Committee made important progress in regulating and pacifying the relations between physicians and sickness funds. But, clearly, there were limits to what it could do. When the depression of the early 1930s put the sickness funds under heavy financial strain, the main physicians' union introduced a proposal which offered short-run financial self-restraint of fund doctors in exchange for structural concessions of the sickness funds. Although hard pressed financially, some funds declined the offer in view of its long-term implications. Eventually, the government enforced the proposal by emergency order (Webber 1988: 173-175). The emergency order of 1931 brought the evolution of the relationship between sickness funds and physicians to an end. It codified the relationship in public law, molded it into a pattern that remains to the present day, and settled the most controversial issues (Kirkman-Liff 1990).

After the war, the health care system in West Germany was resurrected along the old lines. The Imperial Committee was succeeded by a Federal Committee of Physicians and Sickness Funds.[22] Although the new committee did not include representatives from government – a reaction to the extensive government involvement during the Nazi regime –, the state retained powerful controls. All decisions of the Federal Committee require government approval, and in case of deadlock the government can bypass the committee by decree. However, since the emergency order of 1931 had removed most of the contentious issues which had kept the Imperial Committee busy, there wasn't much danger of deadlock anyway. The Federal Committee didn't have much to do and receded to the background of the health care system (Döhler / Manow-Borgwardt 1992: 582-583).

Only during the 1960s did the Federal Committee regain some of its former standing. In the wake of liberal welfare legislation it was reactivated to give technical guidance during the period of rapid expansion of mandatory sickness fund benefits. For this purpose it issued guidelines on matters such as cancer prevention, well-baby exams, or psychotherapy. The material regulation of medical services, which used to be one of its subsidiary functions, became its main occupation. The transformation from a political institution for conflict resolution into an apolitical source of technical competency seemed finally complete. While this transformation didn't stir much excitement, it proved important years later in the course of attempts to control health care costs.

Due to several reasons, health expenditures during the early 1970s increased by almost 20 percent annually. The 'cost explosion' of the health care system became a topic of major public concern. As a first measure to curb the runaway costs, the Federal Parliament passed a law in 1977 that introduced prospectively negotiated ceilings on expenditures for physicians' services and prescription drugs.[23] The definition of these ceilings was delegated to a newly formed committee, the National Health Conference[24] (Stone 1979).

While the inception of the National Health Conference was accompanied by much publicity and high expectations, its performance turned out to be rather disappointing. Ironically, it was precisely the fact that it was conceived for the purpose of cost control which prevented the conference from effectively doing so. First, it led to the inclusion of all actors who could claim to have a stake

22 Bundesausschuss der Ärzte und Krankenkassen.

23 Krankenversicherungs-Kostendämpfungsgesetz.

24 Konzertierte Aktion im Gesundheitswesen.

in health care expenditures – physicians, sickness funds, hospitals, the pharmaceutical industry, pharmacists, local, state, and federal governments, trade unions, employers' associations. As a result the conference was large and unwieldy. More importantly, nobody was left outside the conference on whom the costs of internal agreement could have been dumped. Second, it focused attention on distributive issues. Everybody understood that the conference was about cuts. Participants concentrated on avoiding individual loss rather than the search for collectively beneficial solutions.[25] In combination with the conference's inclusive composition and its decision rule of unanimity this often resulted in deadlock. Third, cost containment drew high public attention. Since the conference meetings were extensively covered in the press, participants used them to publicize and defend claims rather than to negotiate and accommodate them. All three factors combined turned the National Health Conference into a highly visible but largely inconsequential institution.

Patching up the health care system with the new National Health Conference was not the only reaction to the cost crisis. The government also reviewed the set of existing institutions to see which of them could be used for cost control purposes. The Federal Committee was ordered, among other things, to produce a price list of equivalent drugs which physicians were to use to choose the cheapest available drugs for prescription, and to draw up a list of 'bagatelle medicines' which would no longer be reimbursed by the sickness funds. Even though the committee failed with respect to the latter, it turned out to be more useful for cost control purposes than the National Health Conference. First, it is much more exclusive. The number of participants is smaller and the chances for externalizing the costs of agreement are larger. While in the Federal Committee physicians and sickness funds can conspire against, say, the pharmaceutical industry, they can't in the National Health Conference, where the pharmaceutical industry itself is a member and has veto power. Second, the Federal Committee deflects attention from distributive conflicts by framing all issues as technical rather than economic problems. This does not mean that the actors are unaware of the distributive implications of the committee's decisions. But since they can not refer to them directly, these implications tend to be less divisive.[26] Third, the Federal Committee grants its participants secrecy and room for maneuver. Committee meetings are not open to the public. Committee

25 To use Scharpf's terms, the set-up of the National Health Conference explicitly for the purpose of cost control stimulated a 'bargaining' orientation and stifled the emergence of a 'problem-solving' orientation (Scharpf 1989).

26 Characteristically, the Federal Committee in all its public statements talks about 'deliberations' and 'decisions' rather than 'bargaining' and 'agreement' (Döhler / Manow-Borgwardt 1992: 585).

members are free from instruction; their individual voting behavior is not registered in the proceedings. They are thus protected against supervision and reprimand, which increases both their options and incentives for cooperation and accommodation.

By using the Federal Committee for cost control purposes, the government learned about the Committee's advantages and subsequently tried to make more extensive use of them. The committee's responsibilities were gradually extended. The Health Reform Law[27] of 1988 expanded its role in drug regulation and gave it authority over the evaluation of the diagnostic and therapeutic value of new methods of medical treatment. The Health System Law of 1992[28] established a new drug institute subordinate to the Federal Committee and asked the committee to define standards of 'oversupply' in office-based physicians.

The ascent of the Federal Committee left a lot actors aggrieved, potentially everybody who lacked representation in it. However, challenging the committee's position proved difficult. Compared to the National Health Conference it worked quickly, reliably, and effectively. Challenging something that works is always difficult. Moreover, the framing of the committee as a body of technical expertise rather than interest representation protected it from demands to open up. No other actor could claim the same degree of 'expertness' and closeness to the patient as physicians and sickness funds. Finally, the privileges that physicians and sickness funds gained from their exclusive hold over the committee gave them a strong incentive to preserve the status quo by making the committee work. Thus, the same forces which may prevent changes for the better prevented a change for the worse.

4.2 Discussion

The institutional history of the German health care system is in large part a history of patching up. When the fabric of the national health care system was threatened by the physicians' strikes in the early 20th century, it was mended with the Central Committee. When the same system was later in danger of being overwhelmed by cost increases, it was patched up with the National Health Conference. However, the case study conveys a second story as well. The health care system was adapted to new contingencies not only by patching

27 Gesundheits-Reformgesetz.

28 Gesundheitsstrukturgesetz.

up its old structures but also by using these structures in new and innovative ways. The Central Committee was initially created to arbitrate conflicts which arose in the specific context of the 'Berlin agreement'. But when the problems and priorities in the health care system shifted, the committee in its successive guises was put to very different uses. The Imperial Committee wrote regulations for the conflict between sickness funds and physicians, the Federal Committee gave technical guidance to the expansion of mandatory health care benefits and helped to control the inflation of health care costs. All these transpositions were instrumental in adapting the health care system to new conditions without changing its established structures.

The process of transposition was marked by 'backward looking' and improvisation. In contrast to patching up and switching processes which 'look forward' to solving new problems by creating new institutions, the transposition processes in the health care system started with retrospection. The actors turned back to already existent institutions and tried to figure out how they could be used to tackle whatever was the new problem at hand. The methodology of the review was the analogy. New problems were likened to old problems, and the institutions which worked on the old problems were reassigned to the new ones: The problem of writing rules for the conflict between physicians and sickness funds was likened to the problem of arbitrating it, and the competency of the Central Committee, which had authority over arbitration, was extended to include rule making. The task of giving technical guidance on the retrenchment of the health care system was likened to the task of giving technical guidance on its expansion, and the Federal Committee which had been assigned to the latter was reassigned to the former. In the course of these transpositions the committee changed its character. Originally created as a specific tool for a specific purpose, it gradually turned into a *general operator* for a large class of problems.[29] Somewhat surprisingly, this transformation was fuelled by the same factors which also account for institutional persistence.

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29 The process of transposition bears close resemblance with Lévi-Strauss' concept of *bricolage* (French for tinkering or puttering about). A *bricoleur*, according to Lèvi-Strauss, is someone who is adept at performing a large number of diverse tasks; but unlike the engineer, he does not subordinate each of them to the availability of raw materials and tools conceived and procured for the purpose of the project. His universe of instruments is closed and the rules of his game are always to make do with 'whatever is at hand,' that is to say with a set of tools and materials which is always finite and is also heterogeneous because what it contains bears no relation to the current project (Lèvi-Strauss 1966: 17; see also Jacob 1977).

Sunk costs

The strategy of transposition reuses the sunk costs of an old institution for a new purpose. For example, the transposition of the Central Committee from the task of arbitrating the implementation of the Berlin agreement to the task of reviewing, revising, and refining the terms of this agreement reused the assets built up for the former purpose in order to achieve the latter. Contacts, reputations, precedents, procedures, and shared understandings which were invested in the committee during arbitration were recycled for the purpose of legislating new rules for the health care system. The most important advantage of this recycling operation was that it allowed for a very quick response to the new problem. During the crisis of 1923 the government was pressed for time to find a workable solution for regulating the relationship between physicians and sickness funds. Reassigning the Central Committee to that problem had the advantage that the Central Committee was immediately available, while other solutions involving the destruction of old or the build up of new institutions would have taken time to become effective. Transposition has "economies of time compression" (Levinthal/ March 1993: 102-103). It provides 'instant' solutions to new problems (Majone 1991: 79; Czada 1994: 248).

Uncertainty

In general, actors are more certain about the future effects of institutions which they know from experience than of institutions with which they don't have any experience. The strategy of transposition exploits the comparative certainty of known institutions in order to reduce the uncertainties of adaptation. By attacking new problems with known institutions, transposition avoids confounding one uncertainty (about the quality and tractability of these problems) by another (about the quality and reliability of the institutions dealing with them) (see Nelson/ Winter 1982: 131). The German ministry of labor, for example, which was in charge of the health care system throughout the 1980s, showed a strong preference to assign cost-control related problems to the Federal Committee rather than to new specialized institutions. The bureaucrats knew that the Federal Committee had produced workable (if not necessarily optimal) solutions for a wide range of problems in the past, but they were uncertain about the prospects of new institutions. While it was possible that new institutions would eventually turn out to be better fitted for specific problems than the Federal Committee, it was equally possible that they turn out to be failures. Creating new institutions offered the chance of optimality. But transposing the Federal Committee was the safer bet.

Political conflict

The transposition of old institutions tends to depoliticize new problems. Assigning the Federal Committee to the problem of cost control, for example, preempted a host of distributive conflicts. To be sure, the distributive consequences of transposition were severe – physicians and sickness funds profited, other actors were put at a disadvantage. But the discrimination didn't stir much political agitation. It was perceived as incidental to a legitimate attempt by the government to cope with the cost crisis, not as the result of deliberate design.[30] The Federal Committee was an old and inert institution. It could either be used as it was or not used at all. Major reconstruction with a view to changing its distributive bias was not a viable option. This forced the disadvantaged actors to either fight the government's decision to employ the committee altogether or to endure their disadvantage. Since it was all but impossible politically to fight something which seemed to be collectively beneficial on the grounds that it was individually harmful, they chose the latter. Without much resistance they accepted a degree of discrimination which they would never have accepted had the Federal Committee been built from scratch and which, in fact, they did not accept in the case of the National Health Conference.

The National Health Conference has a far less discriminatory structure than the Federal Committee because it was built explicitly for the purpose of cost control. With all design options open, even 'functional' discrimination was hard to justify and defend. As a result, the National Health Conference is a much more equitable institution, but also a much less effective one. Conflict was avoided at the price of endowing the conference with a structure, which made it unfit for its purpose.[31]

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30 "The idea is that resistance is provoked not by the state in which the citizens find themselves, but by the causal process in which it originated. Social and economic inequalities that result from the impersonal play of market forces are more acceptable than those that visibly stem from government discrimination" (Elster 1983: 90; see also Offe 1992: 24-25).

31 As Terry Moe has shown, it is very typical for conflicts which obstruct the creation of new institutions to be resolved at the price of decreasing the institution's efficiency and effectiveness (Moe 1990).

5 Inertia, Change and Adaptation

Institutional change should not be contrasted with inertia in the new institutionalist manner because inertia allows for and may even be a precondition of institutional change. In closing some avenues for institutional transformation, it opens others. It prevents radical breaks, switchovers and revolutions, but allows for transposition and patching up. In preserving old institutional stock, it provides the material for transposition and the building ground for patching up. Granted that transposition and patching up are both possible under conditions of inertia, when should we expect which mode of change to emerge? Moreover, if institutional change can be achieved by exploiting inertia as well as by breaking it, which way is better for adaptation?

Concerning the first question it is obvious that certain conditions favor one mode at the expense of the other. If there are barriers to entry which prevent the set up of new institutions, patching up is not available as an adjustment strategy and actors will tend to fall back on transposition. If all institutions are used to full capacity, there is no room for transposition and actors will have to resort to patching up. If time is pressing, actors will try to make do with whatever institution they already have. If there is a need to signal unambiguously that a new problem is taken seriously, establishing a new institution – rather than just reassigning an old one – has the advantage of high visibility.

Note, moreover, that patching up and transposition tend to stimulate each other. Patching up supplies the requisite variety on which transposition works. Transposition, in turn, generates demand for patching up because it exposes institutions to problems which they were not designed to solve and therefore often fail to solve completely. The former mechanism is exemplified by the health system case where patching up – establishment of the Central Committee – prepared the ground for transposition – reassignment of the Federal Committee to cost control issues. The latter, while not obvious in the case studies of this article, can be observed in the process of German unification. Immediately after unification in 1990, West Germany's institutional set-up was transplanted to East Germany. Exposed to unaccustomed circumstances, the set-up quickly showed signs of strain and consequently was patched up with new structural elements in a surge of what has been called 'repair legislation' (Czada 1994).

Concerning the second question: It all depends on the peculiarities of the situation. Breaking with and exploiting of inertia both have their specific costs and promises. There is no reason to assume that either is always better. Contrary to new institutionalists' preconceptions, their effects with respect to adaptation are not governed by a simple step function, but by an array of trade-offs.

Sunk costs and the trade-off between short-run and long-run benefits

Inertia is advantageous in the short run because it protects sunk costs and mitigates transition problems. However, what is advantageous in the short run is not always advantageous in the long run. The minimization of short-term costs may preclude for the maximization of long-term returns. The avoidance of disruptions in the near future may lock actors into developmental pathways which lead into dead ends, and thus cause disruptions in the distant future. Comfort now may be bought at the price of discomfort later. Yet a sacrifice of stability wouldn't solve the problem, but just transform it. A switchover to new institutions may improve long-term prospects by opening up new developmental pathways, but only at the price of short-term disruptions and dislocations. However, long-run benefits are valuable only if the actors survive all the short runs along the way. Short-run survival, however, may require inertia (see Arthur 1988: 13-14; Amburgey / Kelly / Barnett 1993: 53).[32]

Uncertainty and the trade-off between reliability and variability

Inertia prevents institutional changes from occurring which would involve risking the loss of certain institutional achievements in order to gain uncertain adaptive improvements. It premises institutional change on the protection of existing structures and thus guarantees that the outcome will be in the neighborhood of the status quo. It limits the variability of results. The advantage of reduced variability is that it prevents radical deteriorations. The disadvantage is that it prevents radical improvements. Sometimes reliability is more important than variability, for example when the status quo is comfortable or when an institution is non-redundant. At other times, however, variability may be more important than reliability, for example when the status quo is troublesome or when an institution is engaged in a competition for primacy with other institutions (see March 1991; Tsebelis 1993: 7-8).

32 No society could sustain the transition costs of abandoning virtually all institutions at once. As Douglass North has observed, the probably most conspicuous feature of wars, revolutions, and other disruptions in institutional development is that they are seldom as discontinuous as they appear on the surface (North 1990: 90; see also Krasner 1993). The actors need some stability in order to cope with the costs and risks of change.

Political conflict and the trade-off between conflict avoidance and conflict intensity

Inertia makes adaptation less prone to conflict because it suppresses institutional change which upsets established political alignments. The spirit of old political agreements can be modified, but hardly the letter. Incidental, incremental changes of the political balance are possible, but deliberate and radical changes are largely ruled out. Adaptive change is 'depoliticized' and buffered from political friction. Potential conflicts are ignored and avoided rather than recognized and resolved (see Holmes 1988; Pierson 1993: 609-610). Sometimes unresolved conflicts simply fade away. The parties forget about them, or manage to buy their opponents off by cooptation and indoctrination. At other times, however, unresolved conflicts tend to get worse. They gather strength and gain salience. When they are avoided, they become more intense and more difficult to solve.

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