

The Conflict over the Separation of Prescribing and Dispensing Practice (SPDP) in Korea: A Bargaining Perspective

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We report and analyze the Korean physicians' recent general strike over the implementation of the Separation of Prescribing and Dispensing Practice (SPDP) in which more than 18,000 private clinics and 280 hospitals participated. Utilizing game-theoretic models of bargaining we explain why the Korean physicians were so successful in organizing intense collective action against the government and securing very favorable policy outcomes. In particular, we highlight the role of distributional conflict among social actors in shaping the details of institutional reform.

The introduction of the SPDP was a necessary first step in the overall reform of health care system in Korea. However, the SPDP was perceived to be a serious threat to the economic viability of their profession by the vast majority of Korean physicians who had long been relied on the profits from selling medicines to compensate for the loss of income due to the low service fee under the previous health care system. The strong political

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coalition among heterogeneous physicians enabled them to organize an intense form of collective action, the general strike. Thus, physicians were successful not only in dragging the government to a bargaining table, but also winning in the bargaining and securing an outcome vastly favorable to them. On the other hand, the lack of an overall reform plan in the health care policy area, especially the finance of the National Health Insurance and the need for maintaining an image as a successful reform initiator, motivated the government to reach a quick resolution with the striking physicians.

Key Word : Korean health care system, Separation of Prescribing and Dispensing Practice, Institutional reform, Bargaining, Distributional conflict

의약분업을 둘러싼 갈등 : 협상론의 관점에서

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<국문초록>

본 논문은 의약분업의 실시와 이에 따른 의료인의 대규모 파업을 연구 대상으로 하였다. 협상(bargaining)에 관한 게임이론(game-theory) 모형을 활용하여 의료인들과 정부의 협상과 정과 결과를 분석하고자 하였다. 특히 제도 변화의 과정에 있어 사회적 행위자들 사이의 분배적 갈등의 역할에 초점을 맞추고 있다. 정부에 의한 의약분업의 시행은 의료인들로 하여금 심각한 분배적 결과를 초래할 수 있다는 것이며, 이는 다양한 배경의 의료인들로 하여금 정치적 연합의 가능성을 강화시켰다. 의료인들에 의한 분배적 결과의 인식은 파업과 같은 집합행동의 조직화로 나타나고 정부와의 협상 관계에 있어서도 줄곧 협상력의 우위를 견지하는 모습을 보여주었다. 결과적으로 의료인들은 그들이 원하는 결과를 확보하는데 성공한듯이 보인다. 협상은 제도의 형성과 변화에 있어 행위자들 간 상호작용의 중요한 형태라 할 수 있다. 이 경우 한 행위자의 목적은 그들에 유리하게 어떻게 제도적 규칙을 형성해 나가느냐 이다. 행위자들간 이해관계에 따른 갈등의 분석에 있어 주요한 변수는 당사자들 간 협상력의 차이라 할 수 있다. 힘의 비대칭(asymmetry of power)현상은 제도 형성의 중요한 요소가 될 수 있다. 본 논

문은 비협조 게임 모형(the battle of sexes game)을 이용하여 협상력의 차이에 따른 균형해 (equilibrium outcome)의 차이를 분석하고자 하였다. 특히 정부와 의료인의 협상에 있어 선호의 강도(intensity of preference)와 협상의 결렬시 지불해야 하는 비용(breakdown cost)의 차이는 협상력의 차이로 이어지고, 결과적으로 제도 변화의 결과를 가늠케 하는 척도로 작용하고 있음을 알 수 있다.

I. Introduction: The Initiation of the Separation of Prescribing and Dispensing Practice in Korea.

Adopted in most of the advanced industrial nations, the Separation of Prescribing and Dispensing Practice (SPDP, hereafter) is a system in which physicians prescribe medicines to patients and pharmacists dispense them according to the prescriptions. In Korea, however, the functional division had not been implemented until recently. Since the introduction of western medicine to Korea in the late 1800's, standard practice has been the one in which physicians dispense medical drugs along with their prescriptions, while pharmacists could also diagnose, prescribe, and dispense most of the drugs.¹⁾ This practice was tolerated due to the shortage of physicians which made it necessary to let pharmacists take charge of primary health care in areas where no physicians were available.

The lack of a functional division between the two professions generated perverse incentives for both physicians and pharmacists; the profit from selling medicine accrued to those who prescribe them and, thus, both physicians and pharmacists tended to over-prescribe and over-dispense medicines. As a result, the Korean public had one of the highest levels of drug tolerance in the world, particularly to antibiotics.²⁾ The injection rate for outpatients was also unacceptably high. Korean physicians prescribes injections to about half of all outpatients while WHO recommends less than 20% (<http://bunup.mohw.go.kr/data/policy.html>).

Financially, the proportion of drug expenditure in the total health care cost has grown to

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- 1) For a historical account of the introduction of Western medicines to Korea and its impacts, see Son(1999).
 - 2) While the World Health Organization (WHO) recommends about 20% as an acceptable antibiotics rate in prescription drugs, over 50% of prescribed drugs in Korea contains antibiotics.

as much as 30%. This rate is considerably high compared to that in other countries where SPDP has long been a standard practice (Ahn, 1999: 69).³⁾ The health and financial consequences of the lack of the SPDP became widely recognized. Under the Kim Young Sam administration (1993-1997), an implementation schedule for SPDP was announced in detail. Related statutory laws were also revised, including the Pharmaceutical Affair Law. The next Kim Dae Jung Administration (1998-), coming amidst high public expectation of social reform, initiated the SPDP as one of its major reform agendas.

The purposes of implementing the SPDP seemed simple and uncontroversial. By separating drug dispensation from medical practice and by prohibiting pharmacists from prescribing and diagnosing, it was expected that the abuse and misuse of medical drugs would decrease. In addition, the government also expected that the resulting reduction of the public expenditure on medical drugs would relieve the NHI's financial burden.

The Korean Parliament passed the new Medical Service Law and Pharmaceutical Affairs Law in March 1999 and the laws were scheduled to be effective from July 1, 2000. However, since the passage of the laws, Korean society witnessed serious conflicts among the involved social actors, especially between the government and physicians, over the details of the new policy. The conflict involved a series of strikes by physicians of unprecedented intensity. For six days from June 20 to 25, 2000, more than 18,000 private clinics and 280 hospitals across the country collectively stopped their medical services. Professors in medical schools turned in letters of resignation to universities. The second wave of physicians' general strike was launched on July 31 of the same year. Eventually, the strikes resulted in an outcome broadly favorable to the medical doctors. Physicians were successful in raising the medical service fee rates, above 60% on average, and were also successful in securing a more superior position in the SPDP, vis-à-vis pharmacists, than that in the original plan proposed by the government (Song, 2001).

This paper provides an explanation of why the physicians, who have so long been passive recipients of the state's patronage, and whose occupational characteristics and the social status as an upper class are not favorable for organizing effective collective action, were so successful in organizing intense collective actions against the government. In

3) For example, the U.S. and the U.K. spend only 8.4% and 15.3% of the total medical cost, respectively, for medical drugs. The level of drug expenditure became a heavy financial burden for the National Health Insurance (NHI) which was under the control of government.

particular, this paper highlights the role of distributional conflict, and the relative bargaining power among social actors, in shaping the details of an institutional reform. The main arguments of this paper are as follows. The introduction of the SPDP was a necessary first step in the overall reform of health care system in Korea, but it was perceived to be a serious threat by the majority of physicians to the economic viability of their profession. Physicians had long been relied on the profits from selling medicines, to compensate for the loss of income due to the below-the-real-cost rates of service- ee.⁴⁾ The strong sense of threat provided the basis for a political coalition among the vast majority of the physicians by allowing them to overcome the several dimensions of heterogeneity within themselves: among the different branches of medicine, between the clinics and hospitals, between the physicians motivated purely by material self-interest and those with reasonable orientation toward social and occupational responsibility. This strong political coalition enabled the physicians to organize an intense form of collective action, the general strike, and to sustain it. Thus, physicians were successful not only in dragging the government to a bargaining table, but also winning in the bargaining and securing an outcome vastly favorable to themselves.

On the other hand, several factors contributed to the weakened bargaining power of the government vis-à-vis the physicians. Unlike the previous authoritarian governments, the current administration was severely restrained in using physical power, such as arrests of physicians. Political democratization had opened the door for institutional reforms, but at the same time, it constrained severely the role of government in initiating those reforms. In addition, the lack of an overall reform plan in the health care policy area and the need for maintaining an image as a successful reform initiator, motivated the government to reach a quick resolution with the physicians. This put the government in a position of a weak bargaining party, vis-à-vis the physicians.

The remaining of the paper is organized as follows. In Section 2, we discuss the institutional background for the initiation of the SPDP with more details. In Section 3, we introduce the basic bargaining model in general terms and lay out the theoretical aspects in explaining institutional change and reform. In Section 4, we trace the central events of

4) Addressing his plan for the fee increase, the Minister of the Ministry of Health and Welfare, Choi Sun-Jong who assumed office in August, 2000, acknowledged that the current level(year 2000) of medical service fee compensated by NHI to physicians is about 70% of the actual cost (Dong-A Ilbo, 2001.5.17).

the conflict involving the implementation of the SPDP, utilizing the bargaining model introduced in Section 3. In Section 5, we provide some concluding reflections on the particular event of this paper and the problem of policy reform in general.

II. Institutional Background of the Korean Health Care System

The level of the physicians' service fee under the NHI is a critical factor in understanding the Korean physicians' perception and behavior when they faced the possibility of SPDP implementation. The NHI program was designed during the period when economic development was the utmost priority in Korea. The program's main purpose was to provide health-care service to a broadest possible public at a lowest possible cost. One way the NHI achieved this goal was by not compensating the doctors for the normal service fee. The physicians claimed that the service fee established under the NHI in its first year (1977) was less than 60% of the standard fee prior to the NHI. Since then, the principle of maintaining low service fees had continued. By 1998 medical doctors claimed that they were still receiving only about 65% of what they should be paid (Park, 2000). Furthermore, physicians' complaints about the management of the NHI mounted as it slashed the amount of reimbursement per treatment due to the program's chronic deficits.

To compensate for the low service fee, physicians had taken advantage of the loopholes in the NHI system. These include rebates from pharmaceutical companies for using certain brand drugs; over-doctoring; shortening treatment time to see more patients; and over-utilization of costly high-tech medical equipment that was excluded from NHI reimbursement (Choi, 2000). To an extent, the government condoned these practices insofar as the physicians cooperated with government health care policy in general.

The distorted system of drug distribution was the essential part in the informal mechanism by which resource distribution was molded in favor of physicians and pharmacists. Since physicians were allowed to dispense the drugs and could deal directly with pharmaceutical companies, a sizable quantity of drugs was distributed through clinics and hospitals. This often resulted in collusion between the physicians and pharmaceutical companies. It is commonly known that physicians accepted financial benefits such as rebates or discounts from pharmaceutical companies in exchange for prescribing their

brands. The pharmaceutical companies, meanwhile, report their manufacturer's recommended drug prices(MSRP) to the NHI. Physicians were then reimbursed on the basis of the manufacturer recommended prices instead of the discounted, actual transaction prices. A comparable relationship existed between the pharmacists, who could sell medicines without physician's prescriptions, and the pharmaceutical companies. Figure 1 summarizes the collusive tripartite relationship.

The collusive relationship between the physicians and pharmacists on one part, and pharmaceutical companies on the other, was viewed as one of the main reasons for the rising drug expenditures in the NHI accounts (Choi, 2001: 36).⁵⁾ For the physicians, however, the impending implementation of the SPDP was a significant threat to their economic interests. Despite the government's promise of corresponding policy changes to compensate their income loss, the physicians' distrust of government was too deep-rooted for them to believe the promises. The predominant perception among physicians was that the SPDP was intended by the government to be implemented at the expense of the physicians' interests. The discretionary fee schedule of the NHI and the insufficient public funding for the NHI accounts were the major sources of the physicians' distrust of the government (Cho, 2000).

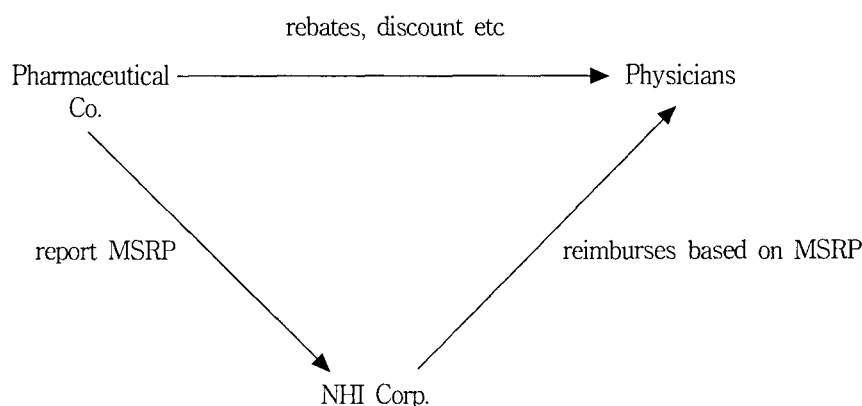


Fig. 1. Incentives and Behavior in the absence of the SPDP

5) Recognizing these circumstances, the government announced, in November 1999, an executive order titled real price transaction in drug distribution intending to pave the way for SPDP.

The weakened capacity of the Korean government following democratic transition is another important background in understanding the conflict between the physicians and the government and its consequences (Seo et al., 2001). Since the 1960s, Korean society has undergone a rapid social and economic transformation under strong authoritarian leadership which was intolerant of any social conflict concerning distribution and social justice. The strong state reduced social uncertainty at the cost of preventing spontaneous emergence of social institutions. By the end of the 1980s, the relationship between the state and civil society in Korea reached a turning point. In 1987, the democratic movement of Korea achieved a constitutional reform, with direct election of President in general election as the key content. The first civilian government was elected in 1992. And finally, in the Presidential election of 1997, the first peaceful transition of power between different political parties was realized and the current administration of Kim Dae Jung assumed the office.

The process of democratization was accompanied by a burst of political and economic demands by various social groups. However, democratic mechanisms for conflict resolution to replace those by the authoritarian state lagged behind the events. This implies that the society has not yet matured to the extent that it can coordinate self-interested motivations to achieve collective goods. The case of SPDP is a good example of how an attempt to bring about institutional change for collective benefit can turn into a disaster when it threatens the distributional interest of a social group.

III. Institutional Change and Bargaining

We view the conflict over the implementation of the SPDP as an institutional conflict in which actors with diverse and often opposing interests struggle for the institutions that are more likely to guarantee their preferred social outcomes. Therefore, we present our views on institutions and the conflict over institutional building in this section. An institution can be defined as a configured set of rules that structures the interaction among social actors in a recurrent social situation.⁶⁾ Institutions shape the incentives for behavior by altering the costs and benefits associated with alternative courses of action

6) For the concept of rule configuration see, Ostrom, Gardner and Walker (1994).

available to social actors. In the long-run, as North (1990, 1995) notes, institutions affect what kinds of investments will be made by individuals and organizations; if the incentives prescribed by a society's institutions reward honesty and professional competence, resources will be invested to develop these traits.

Another important dimension of an institution relates to its distributional consequences among social actors.⁷⁾ As rules shape incentives for behavior and behaviors aggregates into social outcomes, who gets what and how much is one of the most critical consequences of an institution. Social actors know that institutions have distributional consequences. Therefore, not only do they act under a set of given institutional rules, they also want to play over the institutions, by exercising their power during the processes of an institution building (Knight, 1992). In that sense, institutions themselves can be viewed as social equilibria resulting from interactions among social actors (Schotter, 1981; Calvert, 1995).

Bargaining is an important form of interaction among social actors when an institution is built or reformed. From a bargaining perspective of institutional change, one of the main goals of participants to the institutional bargaining is to develop rules that guarantees distributional advantage vis-à-vis other actors after the rules are put in use. The question for a social actor during an institutional bargaining process is how to control other actors who also want to steer institutional rules to their own advantage. How the actors with conflicting interests will agree upon a set of rules depends on the relative bargaining power among the actors. Thus, the asymmetry of power in a society becomes an important factor in explaining the emergence of institutions (Knight and Ensimerger, 1998: 115-120).

The literature on bargaining (Nash, 1950; Rubinstein, 1982, for example) can be used to model bargaining processes for the establishment and reformulation of institutions. Some of the bargaining models are quite complicated, but in this paper we use a simple game-theoretic model of bargaining, which is similar to that utilized by Knight (1992).

7) There is other perspective characterized by its differing emphasis on the effects of social institutions. It stresses the collective benefits by the change of social institutions for the community as a whole. To explain the evolution of social institutions, it emphasize the collective benefits produced by social institution like market. But according to the approach we are focusing on, social institution can be explained in terms of its beneficial effects on particular segments of the community. It suggests a focus on the conflict of interests inherent in distributional questions (Knight, 1992: Ch 1).

The game depicted in Table 1 is originally called the Battle of Sexes game (Morrow, 1994). The story goes that husband and wife want to spend a special evening. The husband prefers to go to a boxing game and the wife a ballet. But both want to go to the same event and spend the evening together. So the problem is whether to go Boxing or Ballet. If they cannot agree on either, the evening is ruined – an outcome considered to be the worst by both. Given the ordering of the payoffs for the two players, the game has two equilibria: (L,L) and (R,R). The two equilibria can be thought of as two ways in which the players can struck a bargain. However, while both the players prefer to reach an agreement (either L,L or R,R), the outcomes they most prefer differ from one another. Player 1 wants to struck the bargain at (L,L) while Player 2 wants (R,R). The bargaining game features both the elements of coordination and conflict, and thus quite relevant as a basic model to understand the conflict between the physicians and the government in Korea.⁸⁾ Both the physicians and the government preferred to reach an agreement that would introduce the SPDP, but they had quite different views on the details of the new institution to be established.⁹⁾

Table 1. A Model of Two-Person Bargaining

		Player 2	
		L	R
Player 1	L	$\chi + \hat{a}_1, \chi$	\check{A}_1, \check{A}_2
	R	\check{A}_1, \check{A}_2	$\chi, \chi + \hat{a}_2$

* $\hat{a}_1 > 0, \hat{a}_2 > 0, \check{A}_1 < \chi,$ and $\check{A}_2 < \chi.$

8) For the sake of highlighting the conflict among the actors, we structured a noncooperative two-person game between the government and the physicians. In fact, there have been other actors in the process of formulation and implementation of SPDP such as pharmacists, public interest groups and hospital etc.. However, there is little doubt that physicians and government were the main actors in the relationship all the way around SPDP.

9) As one reviewer suggests, not every policy change has the distributional consequence but the attainment of mutual interests. An institutional change might have both aspects of conflict and common interests among the participants. The perspective of integrative bargaining (Pruitt, 1983) for that the bargaining situation is moving toward problem solving along with the exchange of the priorities concerning the bargaining issues could be another alternative explanation

In the Game in Table 1, if we set $\ddot{A}_{1,2} < \chi$, there will be two equilibrium outcomes that can solve the bargaining problem, L, L and R, R strategy combinations. The values of \ddot{A}_1 and \ddot{A}_2 can be thought of as "breakdown values" that the actors will receive if they fail to coordinate on one of the equilibrium outcomes. On the other hand, \hat{a}_1 and \hat{a}_2 represent the distributional advantage accruing to one of the actors if a particular equilibrium outcome is chosen.

Bargaining theories indicate that an actor's success in bargaining depends largely on the credibility of strategic commitment to the outcome the actor prefers. The concept of commitment is best understood in the context of a single-shot sequential version of the same game shown in Figure 2.

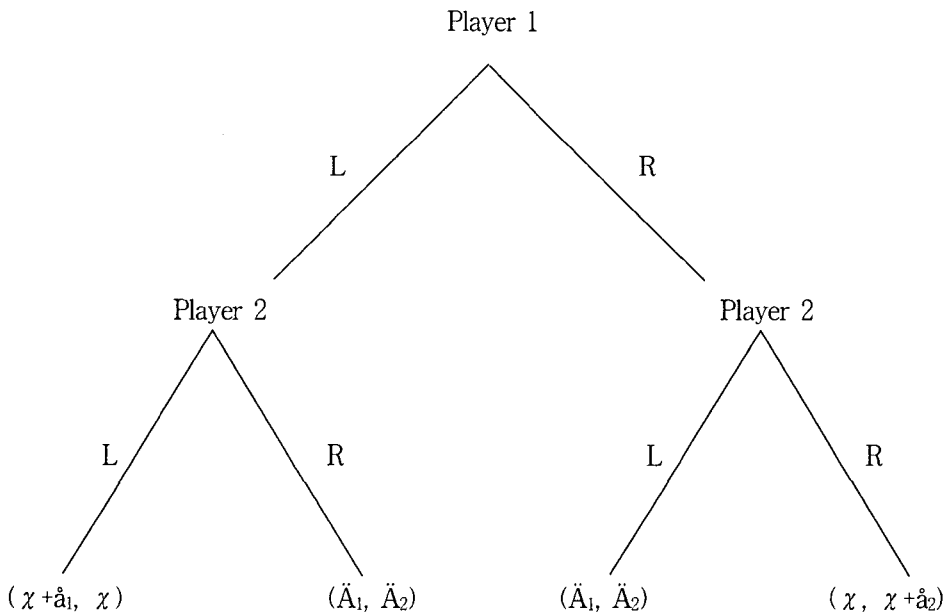


Fig. 2. A Two Person, Sequential Bargaining Game in Extensive Form

In a sequential bargaining game one player (Player 1 in Figure 2) makes his decision first before the other player decides. This provides a significant strategic advantage. Suppose Player 1 chooses L, then there are only two outcomes, (L,L) and (L,R), possible for Player 2. If Player 2 chooses L, Player 2's payoff is χ ; if Player 2 chooses R, the payoff is \ddot{A}_2 . Since χ is greater than \ddot{A}_2 , L is the rational choice for Player 2.

The situation depicted in Table 1 is not a sequential one and, thus, no player has the strategic advantage due to the sequence of play. However, the concept of commitment is still applicable. During the process of bargaining, each of the two players has an incentive to send strong signals to the other player showing that it is committed to the outcome it prefers. A successful pre-game commitment in game situation like the one in Table 1 has the same effect as the first mover advantage shown in the sequential game in Figure 2. There are other important factors that constitute a player's bargaining power such as one's attitude toward risk and time and the magnitudes of the \hat{a}_i and \hat{A}_i , especially when the game situation is recurrent. We will discuss those factors in the next section as we apply the basic bargaining model and its variants to the conflict between physicians and the government in Korea.

IV. Physicians' Strike and Bargaining

With the basic bargaining model introduced in the previous section in mind, we analyze the events surrounding the SPDP: the preferences of the actors involved, the incentives they faced, their perceptions, bargaining power, and the settlement.

1. Government's Original Intention and Physicians' Perception

The government perceived the implementation of the SPDP as having several beneficial effects for the general public as well as to the government itself. Though some degree of resistance was not unforeseen, the Kim Dae Jung administration estimated that the political benefit of implementing SPDP would far outweigh the potential risks involved in the reform effort. *To minimize the potential resistance and to maximize the public support*, the government focused on advertising the beneficial effects of the SPDP such as protection of citizens from the abuse and misuse of medical drugs. The administration also expected that the ensuing reduction in drug consumption would improve the financial condition of the NHI.

However, what the administration intended was a moderate degree of the functional division, to minimize the possible resistance by the pharmacists as well as the inconveniences to the general public that may result from a radical change. The original

government bill reflects the government's hesitance to implementing SPDP in a full scale. For example, the over-the-counter(OTC) drugs were allowed to be sold in individuals units. This is the case in many countries that have implemented the SPDP. However, with the time-long conventional practice of pharmacists doing diagnosis and prescription, the physicians thought that allowing individual unit sale of OTC would practically open the door for the pharmacists to continue diagnosis and prescription. The original bill was also generous in allowing pharmacists to dispense alternative drugs as long as that drug is known to have the same medical effects and as long as physicians who prescribed are informed later.

The government was well aware that the level of service fee for the physicians was low and, thus, a raise of physicians' fee was necessary to compensate for the physicians' income loss, as they were no longer to make profits by dispensing medical drugs. However, the government preferred a moderate increase, under 10% of the current service free level, not to burden the account of the NHI. It also expected that the physicians' inevitable drug-related income loss would be in part compensated by a more frequent visit to physicians by the patients (Park, 2000).

Most of the physicians who were experiencing intense competition among themselves were extremely sensitive to any financial loss due to the change. As noted, to make up the loss incurred by the low service-fee schedule of the NHI, physicians developed numerous informal health care practices such as over-doctoring or improperly dealings with pharmaceutical companies. To medical doctors, introducing new order in the health care system meant that the distributional structure of the market would be disturbed in a manner contrary to their interests. It was claimed that implementing SPDP without abandoning the principle of maintaining low service fee would deprive the physicians of their reasonable income as an upper-middle class.

Physicians organized mass assemblies pushing forward their demands to the government and closed the doors of their clinics on a couple of occasions in 2000 before they went on a general strike during the summer. On February 17, 2000, 78% of the physicians closed the doors of their clinics to participate in the national physician's assembly. On April 1, 2000, the government announced that it would increase the health insurance rate for the general public by 6% to compensate physicians' income loss due to the coming SPDP. However, the Korean physicians were not satisfied and went on a second clinic-closing for three days

between April 4 and 6, 2000. During the mass assembly of more than thirty thousand physicians and medical students on June 4, 2000, the Korean Medical Association (KMA) put forward ten demands to the government and announced that unless those demands are accepted and implemented, they would go on an indefinite general strike beginning on June 20, 2000. The government, desperately trying to prevent the impending strike, conceded to some of the physicians' demands while at the same time vowing to react with police power should the physicians actually go on to a general strike. But the promises and threats were both too late and too small to persuade the physicians off the track to the general strike. On June 20, 2000, eighteen thousand clinics and two hundred and eighty hospitals nationwide collectively closed their doors launching the previously announced general strike. On June 23, the majority of the professors in medical schools nationwide submitted their letters of resignation to their universities in support of the physicians.

2. Bargaining and Asymmetry of Power, Favorable Outcome to Physicians

The physicians' strike drew government to a de facto bargaining table, even though at first, government refused to bargain with striking physicians. Physicians put forward their demands, which will be called P-Bill heretofore. Because the necessity of SPDP was now widely understood by the general public, the physicians could not denounce the implementation of SPDP altogether. Instead they tried to mend the reform as favorable as possible for them. The following are the essential components of the physicians' demands:

- Adjustment of the medical service fees to realistic levels
- Elimination of discretionary dispensation by pharmacists
- Requirement of prior approval by physicians of any alternative medicines dispensed by pharmacists
- Classification of more drugs as prescription-only medicines
- Conduct of pilot studies before full-scale implementation
- Increase of tax revenues for NHI accounts (to the level of 50% of the total NHI account)
- Reduction in the number of students entering the medical school (a 30% reduction)

Table 2 represents the new bargaining situation, constructed based on the more general

bargaining model shown in Table 1. The game has two equilibria (P-Bill, P-Bill) and (G-Bill, G-Bill) that differ in their payoffs for the government and physicians. Although both the actors to the institutional bargaining preferred one of the two equilibria to non-equilibrium alternatives, they disagreed on which outcome should be achieved. This creates a conflict and leads to a bargaining problem.

Table 2. Bargaining between Government and Physicians - Base Model

		Physicians	
		G-Bill	P-Bill
Government	G-Bill	4, 2	1, 1
	P-Bill	1, 1	2, 4

Which of the two equilibria of the game would be selected depends on, first of all, the strength of the commitment by players to the equilibrium that favors oneself. After the physicians' first strike started, government maintained its position in favor of the implementation of SPDP on July 1, 2000, as the law mandated. The following are some components of the government's response to the physicians' strike that showed its commitment.

- Government emphasized the provisions in the Medical Service Law (MSL) that restrict closure of medical institutions.
- Government arrested the president of the Korean Medical Association on account of violation of the MSL.
- The Prime Minister held a press conference immediately after physicians' strike, advocating the implementation of SPDP as scheduled and promising to correct any problems later.
- Pro-government groups and the press denounced the physicians as immoral and anti-reform.

However, the government's commitment weakened gradually as physicians' strike went on. Especially after the physicians of the KMA voted in favor of a second strike (2000.7.29), the government's commitment was fading rapidly. The intensity of the physicians strike caught the government off-guard. In fact, due to the monopolistic power

of the physicians, the government did not have any contingency plan for public health service in face of the strike. The government and its SPDP policy became a major object of criticism as citizens experienced difficulties in obtaining medical services. Major newspapers were not strongly supportive of SPDP, in part, because of their opportunistic attitudes.

There were also signs of a lack of coordination within the government. For example, while the Ministry of Health and Welfare(MHW) maintained a hard-line position for implementing the SPDP, the President agreed with opposition leaders to revise the Pharmaceutical Affair Law later (June 24, 2000). The President Kim replaced the minister of the MHW making him responsible for the disarray of SPDP (August 7, 2000). The new minister visited the KMA and its imprisoned president seeking a dialogue (August 9, 2000). After KMA members voted for a third strike (September 19, 2000), the government apologized to the general public and to the physicians acknowledging that its health care policies were problematic (September 24, 2000). The minister of MWH agreed to revise the Pharmaceutical Affair Law incorporating many demands made by the physicians (October 5, 2000).

The above course of events documents the collapse of the government's commitment to G-Bill. On the other hand, there were indications that showed the strong commitment on the part of the physicians before, during, and after the first strike:

- A series of massive assemblies by the KMA since November of 1999 successfully mobilizing the physicians in an unprecedented manner.
- A high rate of participation (about 80%) in clinic closures during the first strike and the continuation of the strike in spite of strong criticism from public interest groups.
- The participation in the strikes of medical school professors, who were known to be among the most conservative groups in Korea.
- The emergence of a more radical physicians' group, the Strike Committee for Physicians' Rights, and the wide support by physicians for the Committee's leadership.¹⁰⁾

The physicians' strong commitment to P-Bill was the immediate source of their superior bargaining power vis-à-vis the government. The question then is the source of this strong

10) The chairman of the committee was elected and now is serving as president of the KMA.

commitment. Below we provide explanations for the relative strengths of the commitments by the two bargaining parties utilizing modified models of the basic bargaining game.

The first reason why the physicians' commitment was stronger than that of the government has to do with the intensity of preference. The relative intensity of preference is captured by $\hat{\alpha}_i$ terms in the basic bargaining game of Table 1. Table 3 presents an example in which payoff values are assigned showing the relative intensity of preferences between the government and physicians.¹¹⁾ In Table 3, $\chi = 2$, $\hat{\alpha}_1 = 2$, and $\hat{\alpha}_2 = 4$. Comparing the two equilibrium outcomes, the values of $\hat{\alpha}_i$ represent an actor's loss when the less-preferred equilibrium is reached instead of the more-preferred one. There are two ways of how do we know that physicians' preferences were more intense than the government's (Morrow, 1994: Ch 2).¹²⁾ One way is to find out the intensity based on the behavior of the participants. Without much problem of collective action the physicians were successful in terms of both managing the series of massive rally and subsequent strikes against the government and participating the clinic closures. Another example is the participation in the strikes by the medical school professors. To many people including the government, the resignation of professorship from the medical schools was enough to remind the seriousness of physicians' motivation since they are happen to be among the most conservative groups in the country.

The other way is to demonstrate the objective incentives the physicians face.¹³⁾ As noted, it is well known that the physicians were experiencing the significant financial burden under the practice of the NHI program like 'low-fee and low-coverage'. The physicians were speculating on the situation that might be worse when the SPDP is implemented as planned. Since the physicians have, somewhat, replenished the loss from the improper deal with pharmaceutical companies, it seems that the separation of prescription and dispensation was meant a disaster in terms of their financial loss. In

11) The game model attempts to capture the relative intensities of players. The exact values do not matter as much as the relative utility values between players in a given game and the relative utility changes for a given player across different constructions of the game.

12) Another issue is how to assign cardinal value. We have chosen 6 for the stronger preference of physicians but there is no reason it has to be 6. It could be 5, 7, or 8. The important thing is that the value be greater than 4 (the governments value). Besides that it is all heuristic. We could indicate that insofar as the value is greater than 4, the analytic results do not change.

13) Some people may criticize using behavior as indicator of preference as functional or tautological. In that case, the best we can do is to present the objective incentives the actors face.

addition, many of the physicians were bitter conceiving the major public health policy like SPDP was framed without much inputs from their viewpoints. The loss of self-esteem by the physicians might be another incentive for the persistent insist of their preferences. Thus, in the model, Table 3, we construct that physicians had more to lose from G-bill than government from P-bill. Or the physicians had more to gain from P-bill than Government from G-bill. The examples model the fact that physicians wanted P-Bill more than the government wanted G-Bill.

Table 3. Bargaining between Government and Physicians - Preference Intensity

		Physicians	
		G-Bill	P-Bill
Government	G-Bill	4, 2	1, 1
	P-Bill	1, 1	2, 6

The second factor in determining the relative bargaining power is the costliness of bargaining breakdown. In the baseline bargaining model of Table 1, this relative breakdown cost is captured by the values of \bar{A}_1 and \bar{A}_2 . Table 4 shows an example of a bargaining situation in which the breakdown values differ between the two players: 0 for Government and 1 for Physicians. In this situation, the player with the lower breakdown payoff fears the breakdown of bargaining more than the player with the higher breakdown value. He is more likely to be content with the equilibrium in which he is disadvantaged.

Table 4. Bargaining between Government and Physicians - Cost of Breakdown

		Physicians	
		G-Bill	P-Bill
Government	G-Bill	4, 2	1, 1
	P-Bill	0, 1	2, 4

The reason for the physicians' higher breakdown value vis-à-vis the government is that while the physician can at least maintain the status quo, the government, should the bargaining break down, suffers from the failure of its major reform policy. For the

government, the failure in health-care reform would have far-reaching negative impacts on other reform agendas it had planned. Sensing that it could not win the bargaining against physicians, the government had to accept P-Bill in order to avoid the worst political blow. There were already signs that the government's inability to settle the problem with the physicians was undermining its popular support: polls showed that the approval rate of the government was plunging (Chung-Ang Ilbo, 2000.7.2). While physicians knew that no one can replace them to take care of patients as long as they maintained the surprising unity among themselves, that was not the case for the government. There are always eager political parties to replace the one in power when it stumbles.

The period between the physicians' first general strike which ended on June 25, 2000 and the agreement among the physicians, pharmacists, and the government on November 11, 2000 which reflected most of the physicians demands, can be characterized by the persistent protests in the form of smaller scale strikes, assemblies, and demonstrations, and the continued concessions by the government to the physicians to escape from the embarrassments. A three party negotiation table was established among the physicians, pharmacists, and the government on October 24, 2000. On November 11, 2000, after 24 sessions during the half-a-month time period, they reached a final agreement on a new outline of health care reform that reflected most of the physicians' demands put forward during the general strike. Those included a substantial raise of the physicians' service fee - about 65% increase - and a more strict prohibition of discretionary and alternative dispensation of medicines by pharmacists. The Korean Parliament passed a new Pharmaceutical Affairs Law in January of 2001.

V. Conclusion/Discussion

The Korean public is yet to see tangible improvements in health-care practice due to the newly introduced SPDP. The conventional practices of medicine especially with regard to prescriptions have not been changed much yet. According to the Health Insurance Review Agency established by National Health Insurance Law, patients still have almost identical treatments in terms of injection and antibiotic prescriptions after one year of implementation.

The agency conducted a survey comparing the effectiveness of SPDP before and after

its implementation. The overall figures indicate poor results in terms of the policy's original effectiveness (Chung-Ang Ilbo, Dong-A Ilbo, 2001.6.27, and 7.1). Injection rates and antibiotic prescriptions per treatment declined slightly from 50% to 47% and 0.9 to 0.83 respectively. The average number of drugs per prescription changed from 5.87 to 5.73. That means that total drug consumption did not change much 'before' and 'after'.

The public's health care expenditures have increased. In many ways, the financial burden due to the increased physicians' service fee fell on the general public. The government allowed raises with regard to service and other related fees on several occasions for both physicians and pharmacists. To match the expenditures following the promise of raises during the bargaining process, the public will likely bear about \$4 to 5 billion more in the long run (Choi, 2000). On the other hand, in spite of the service fee increase, the physicians are not entirely satisfied with the current state of the health care regime. Since the SPDP was introduced without an overall reform of the health care regime, especially, the financial plan for the NHI to implement the increased physicians' service fee, the physicians are constantly suspicious of whether the increased fee-schedule will be implemented with any stability. Currently, the focus of health care reform seems to have moved to the reform of the NHI's financial system with the physicians threatening another general strike.

We conclude this article with some reflections on the institutional reform in general drawing on the lessons from the current case. If social institutions are the products of human interactions, the substantive content of institutional rules should reflect the goals and motivations underlying those interactions. This does not mean that institutional effects are the mirror of a particular actor or group's preferences. Rather, the final form of institutional rules is a product of the conflict of interests among the relevant actors. Therefore, to understand the development of a social institution one needs to understand the involved social actors' underlying interests and how they are translated to their preferences over alternative institutions. If the social actors are motivated mainly by their material self-interest, realizing the perceived collective goal will not be the prior consideration in their preferences for institutions.

The emphasis on distribution leads to the argument that the development of social institutions is a function of distributional conflict over substantive social outcomes. The explanation conceptualizes social interactions as bargaining problems and invokes the

asymmetries of power in a society as a primary source of institution building. The pursuit of distributional advantage by the social actors is the main driving force for the emergence of social institutions. A bargaining approach to the emergence of social institutions relies on the mechanism of commitment, and the resources that make commitment credible and ultimately resolve the bargaining problem as a socially shared solution. It also suggests that a reform effort in the name of the collective good will be resisted if the distributive effects tend to diminish the benefits to significant segments of a society, as the Korean public painfully witnessed during the hot summer of 2000.

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