

## A Dynamic Model for Exploring Systemic Transformation of Socialism

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**T**he collapse of socialism, to use a journalistic term, in Eastern Europe and the Soviet Union has been one of the most significant events in contemporary human history. It brought about fundamental changes in the mode of interaction among the members of the social system in the East European countries and the former Soviet bloc. Political and economic structures and processes have changed drastically, and individuals in a new system came to play quite different roles from those previous. The collapse of the socialist system reflected that it was unable to meet human needs and failed to realize such universal values as freedom, equality and human rights.

Despite that the decay of socialism seems to be an overall trend in human history, some socialist systems remain intact in the other part of the world. Not only did the Chinese democratic movement fail in the same year East European socialism experienced a systemic transformation, but also Cuba, Vietnam, and North Korea maintain essential elements of the socialist system. In view of the divergence of the fate of socialism since the end

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of 1980s, we have a task to develop a general and comprehensive model on these system dynamics.

The purpose of this research is to develop a set of theoretical generalizations, under the umbrella of systems analysis, for the study of the dynamics of socialist systems at the end of 1980s. The research should comprise two parts: One would be on the legitimation crisis as a condition for a systemic transformation of socialism, the crisis caused by the weakening of system capacity; the other would be about the intervening mechanism for a systemic transformation. This paper, however, will delve into the intervening mechanism, which means the relationship among subsystems of the socialist system; accordingly, it will show that diverse input and output modes of subsystems yield different levels of system stress and finally produce various paths that decide the fate of each socialist system.

### **Condition for Systemic Transformation: Legitimation Crisis**

A system, whatever its form, hardly manages to persist without securing a certain extent of legitimation, for legitimacy is the most important source of diffuse support by which members of the system attach unconditionally to political authorities without any direct benefits. Without legitimation and, in turn, without diffuse support, the system has to face voluminous discontent from its members on every single decision or policy produced by the authorities in daily politics.<sup>1</sup> The socialist system is not an exception.

Legitimation of a system is threatened when it cannot adapt to the changing relationship between subsystems and to new environment. That is, the legitimation reaches a severe situation when the system fails to accommodate newly emerging demands and convert them into outputs. In the case of socialism of

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1 David Easton, *A Systems Analysis of Political Life* (Chicago: University of Chicago Press, 1979), pp. 153-243.

the Soviet Union and East European countries, the system by nature lacked the capacity to cope with the problem of inefficient economy in particular. The central planning contributed to the rapid economic growth at the stage of building a new system. However, the bureaucratic control over economic activities came to decrease productivity and finally to deteriorate the economy as a whole. This worsening situation brought about the emergence of a second economy most recognizable in black market activities. Thus the private domain with which the party cannot interfere expanded to threaten the principle of socialism embedded in the legitimating values of Marxism-Leninism.<sup>2</sup> Reform policies could not resolve the continuous discrepancy between the legitimating values and real private life; instead, they back-fired and contributed to the emergence of oppositional social groups.

The critical situation of legitimation in general is amplified when there exists either an alliance among social groups such as intellectuals, priests and workers, or their alliance with corresponding groups in neighboring countries.<sup>3</sup> For the alliance is an expression of 'coupling' among the subsystems of a given society and its environment. Just as in the biological system so in the social system: relative isolation of subsystems allows the given system to remain stable, whereas tight coupling between them leads it to be vulnerable to a disturbance in any of the subsystems.<sup>4</sup>

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2 Vladimir Shlapentokh, *Public and Private Life of the Soviet People: Changing Values in Post-Stalin Russia* (Oxford: Oxford University Press, 1989), pp. 153-202.

3 For analyses of the effect of alliance on the delegitimation of authoritarian regimes, see Alfred Stepan, "State Power and the Strength of Civil Society in the Southern Cone of Latin America," in Peter Evans, Dietrich Reuschmeyer and Theda Skocpol, eds., *Bringing the State Back In* (Cambridge: Cambridge University Press, 1985), p. 336; Alfred Stepan, *Rethinking Military Politics: Brazil and Southern Cone* (Princeton: Princeton University Press, 1988), pp. 6-7.

4 For the theoretical discussion by systems scientists on the coupling effect, see David Easton, *The Analysis of Political Structure* (New York: Routledge, 1990), p. 248; Robert B. Glassman, "Persistence and Loose Coupling in Living Systems,"

### Assumptions on Dynamics of the Socialist System

The legitimation crisis is an important factor for system dynamics, and yet it does not automatically lead to a systemic transformation. The relationship between the subsystems—such as political authorities, the military and the opposition—will decide the path of the dynamic process and finally determine the fate of the socialist system. Of course, a meaningful change in the environment may affect the relationship, but the change is usually perceived in quite different ways by the three subsystems because they are not free from ideology.

There are several possible paths along which the system may travel from the point at which it reaches a legitimation crisis. Depending upon the path it takes, a legitimation crisis will either lead to a systemic transformation or to a slight modification of authority structure only. In this respect, the relationship between essential subsystems is called an 'intervening mechanism' in the dynamics of a socialist system. Let us illuminate how the intervening mechanism decides the fate of a socialist system.

Suppose the following simplest case. There exists strong cohesion between the ironhearted political authorities centered around the communist party and the hard-line military, and that the opposition is not strong enough to take a radical stance. In this case, a systemic change can hardly take place, since the political authorities and the military, who are not ready to lead a change, will attempt to dismantle the opposition by taking repressive measures.

However, since the relationship between the subsystems will not take such singular form as above but various models, one needs to address the following questions. What is the political attitude of the opposition toward the political authorities in the party and the state? How do the political authorities and the

military perceive the crisis situation and respond to the opposition? Is the relationship harmonious between the political authorities and the military? Are there any internal dynamics for change in the characteristics of the subsystems? Which combination of the trilateral relationship contributes to viability of the system? Considering these questions, we should develop models, based on the following assumptions for the explanation of relationships.

*Assumption 1. Each subsystem takes one of two possible stances. The stance means not only the attitude but also the behavior taken by a subsystem toward the other subsystem. The opposition is either radical or moderate; the military hard or soft; and the political authorities non-conciliatory or conciliatory.*

The opposition is defined as radical when it disregards legal means of participation in the belief that the means are spurious. A radical stance is maximalist, and is sometimes followed by mass demonstration with violence especially when the opposition is not organized in articulating its demands. In contrast, the opposition is called moderate when it takes a minimalist stance, or when it disguises its radical stance temporarily for a tactical reasons.

The military and the political authorities are called hard and non-conciliatory respectively when they are risk-insensitive.<sup>5</sup> The insensitivity is attributed to a problem in the channels of information feedback—such as distortion of information, ignoring of transmitted information, or blockade of the information feedback. In any case, they believe that use of force is sufficient to maintain their prerogatives. But the military and the political

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5 On the concept of risk-insensitive, see Adam Przeworski, "Some Problems in the Study of the Transition to Democracy," in Guillermo O'Donnell, Philippe C. Schmitter and Laurence Whitehead, eds., *Transitions from Authoritarian Rule: Comparative Perspectives* (Baltimore: Johns Hopkins University Press, 1986), p. 54.

authorities are regarded as soft and conciliatory when they are risk-averse. Particularly, the military may take a soft line when it concerns its reputation. Both the political authorities and the military tend to try to prolong their main privileges while conceding gradually to the demands of the opposition.

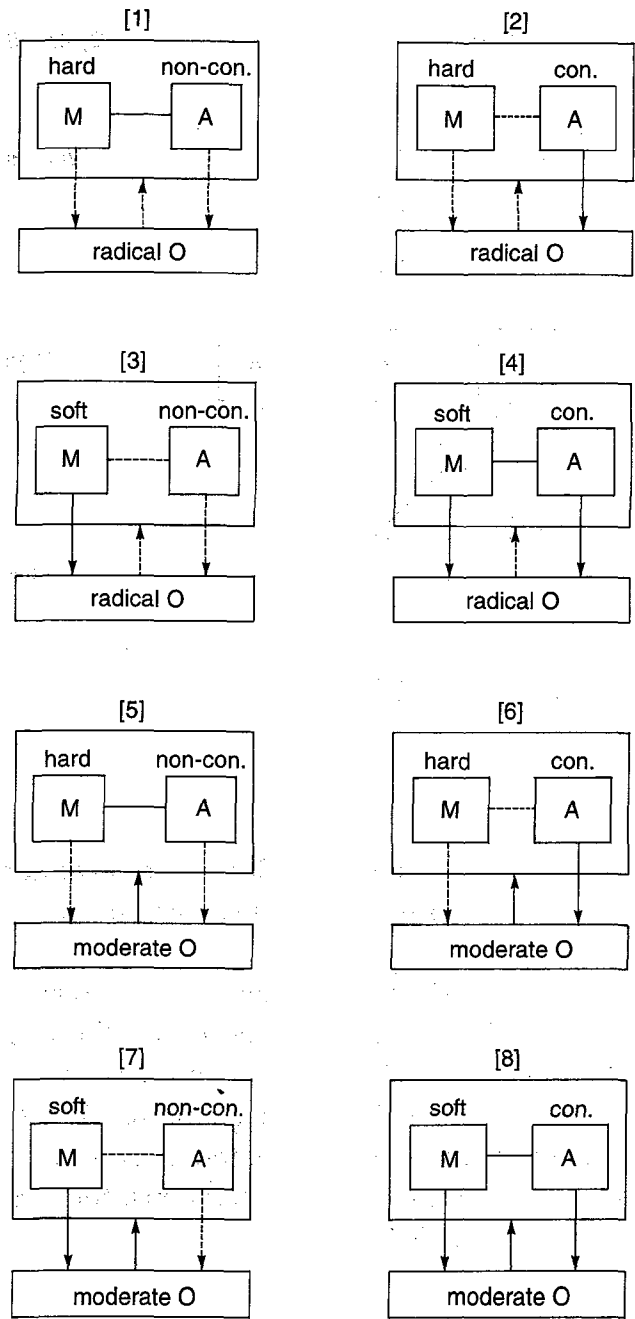
*Assumption 2. There are eight possible models of relationships between the three subsystems.*

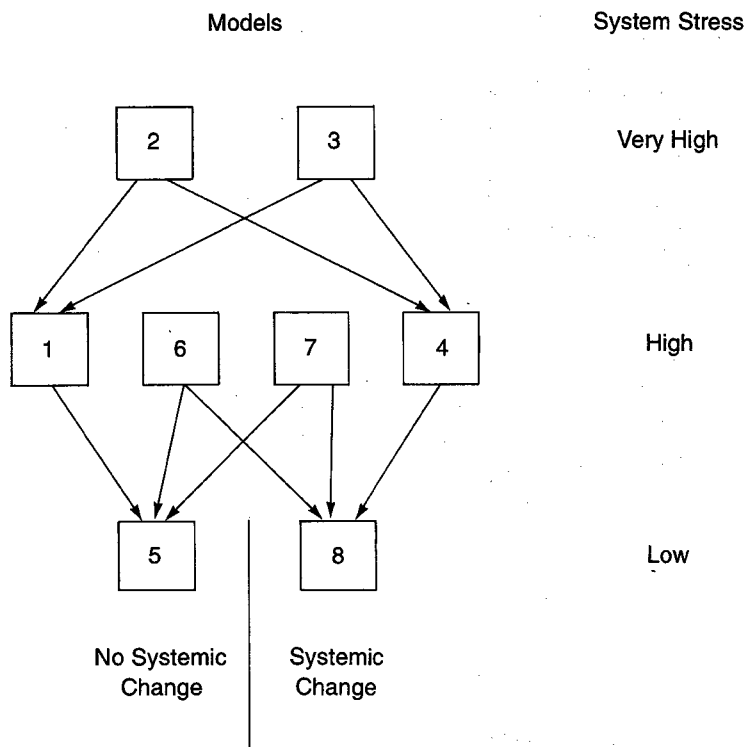
The relationship between the political authorities and the military is decided by compatibility or incompatibility of the stances they take toward the opposition. For instance, if the political authorities take a conciliatory stance and the military takes a hard line toward the opposition, it brings about a schism. Since each of the three directions has two possibilities—positive (solid line) or negative (dotted line) as in Figure 1—the total number of models is eight.

*Assumption 3. Each model of relationship generates a certain level of system stress. There are three levels of system stress: very high, high, and low.*

Since system stress is an important notion, we have to define the criteria of the stress level. The level of system sum of (1) the opposition's stance and (2) the compatibility between the stances of the authorities and the military toward the opposition. On the one hand, if the political authorities and the military take different stances in dealing with the opposition at a time of legitimation crisis, the level of system stress increases. In the socialist system where the party controls the military, any incompatibility between their stances that originates from the desertion of the military would be an exceptional case. In such case the decision made by the political authorities would hardly be considered to be binding even by the military. On the other hand, demands with militant tones coming from the radical opposition

Figure 1. Models of Relationship among Subsystems



**Figure 2. Paths of Transition of Models**

also contribute to a stress increase. Because radical demands are time-limited, the authorities' responses are usually unable to meet them.

According to these criteria of system stress, we can classify the models in terms of their level. When either the opposition is radical or there is a schism between the military and the political authorities, the stress level is high (e.g., models 1, 4, 6, and 7). If both of them occur at the same time, the level is very high (e.g., models 2 and 3). If neither of them happens, the stress level is low (e.g., models 5 and 8).



*Assumption 4. The models are not static but dynamic. When the stress level of a certain model is very high or high, the model will transform into another model of a lower level of system stress, as shown in Figure 2.*

System stress tends to lessen, since a system, whatever its form, has a homeostatic characteristic. Homeostasis, a concept that has been used extensively since Walter B. Cannon, represents a tendency for preservation of constant internal economy of the system through adaptation to the environment.<sup>6</sup> That is, the system adapts to ensure, to employ the term of W. Ross Ashby and David Easton, the survival of the 'essential variable,' without which the system would always be in danger of disaster.<sup>7</sup> In a human system, to ensure the survival of the essential variable means to produce binding decisions constantly for the authoritative allocation of social values. The system can hardly persist if it stops generating the decisions. Even when the system is under stress, in the long run, it tends to restore a stable status to its operation, the status that makes it possible produce the binding decisions. It should be noted that the preservation of the essential variable by the restoration of a stable status does not necessarily mean a return of the system to the exact previous one. For instance, the system under a very high level of stress—with contradiction perhaps between conciliatory political authorities and a hard-line military vis-à-vis a radical opposition—can restore stable status and preserve the essential variable when the authorities persuade the military to accommodate the opposition's demands. This case will finally restore stable status

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6 Walter B. Cannon, *The Wisdom of the Body* (New York: W. W. Norton & Company, 1932), pp. 24-5, 305.

7 W. Ross Ashby, *An Introduction to Cybernetics* (New York: John Wiley & Sons, 1963), p. 196; David Easton, *A Framework for Political Analysis* (Chicago: University of Chicago Press, 1979), p. 195.

through a systemic change. In the assumptions of this research, the notion 'stable' does not convey any normative connotation.

There are 'rules of transition of models,' based on the concept of homeostasis. First, if a schism does occur between the military and the political authorities, it should be resolved at all costs, because a schism between them would be dangerous in that the desertion of the military would bring about unprecedented abnormal operation of the given system. The schism is resolved in either of the two ways: the political authorities may persuade, or the military may lead a coup. The way in which the schism between the military and the political authorities is resolved depends upon which subsystem has greater power, thus the models with the schism will follow one of the possible paths of transition—e.g. from model 2 to either model 1 or model 4.

Second, when the opposition takes a radical stance while the military and the political authorities take compatible stances, as in model 1 and model 4, the stance of the opposition will change. An opposition with a radical stance will not be accepted or tolerated by the hard-line military and the non-conciliatory political authorities. In contrast, when the military and the political authorities are soft and conciliatory, the radical opposition is marginalized and is in the end unable to find any reason to maintain its same radical position.

The system dynamics finish at the two destination models, model 5 or model 8, which represent the resolution of contradiction among the three subsystems either by restoring the previous repressive order or by occurrence of a systemic transformation.

### **Diverse Paths of System Dynamics**

Based on the four assumptions, we may elaborate the paths of system dynamics.

*Path from model 2 to model 1 or 4.* Model 2 represents that the stances of the opposition, the military and the political authori-

ties are incompatible with each other and that this relationship generates very high system stress. A harmonious relationship between the military and the political authorities needs to be restored as soon as possible, either by the hard-line military's dominance over the authorities or by the conciliatory political authorities' buying off or persuasion of the military.

*Path from model 3 to model 1 or 4.* Model 3 is similar to model 2 in that there is no harmony among the three subsystems and that the military disagree with the political authorities. But it is distinctive in that the military is soft and risk-averse while the political authorities are non-conciliatory and risk-insensitive. The military may be discontented with decisions made by political authorities and refuse to work as their instrument of repression in order to keep its prestige and privileges. Model 3 shifts to model 1 or model 4. If the military is supportive of or keeps silent for the sake of the opposition and wins over the non-conciliatory political authorities, it may play a crucial role as a lever for a systemic transformation by transition to model 4. Otherwise, there is a change to model 1.

*Path from model 1 to model 5.* In model 1 the frustrated but radical opposition leads to mass protest, followed by repression. The mass protest and repressive measures are of mutual causality; their feedback amplifies until a loss of many civilian lives has resulted.<sup>8</sup> Insofar as the stances of the two subsystems of the ruling block remains intact, model 1 changes into model 5, in which the opposition is either dismantled or has to disguise its

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8 On the theoretical development of amplifying feedback, see M. Maruyama, "Mutual Causality in General Systems," in John H. Milsom, ed., *Positive Feedback: A General Systems Approach to Positive/Negative Feedback and Mutual Causality* (Oxford: Pergamon Press, 1968), pp. 80-100; Yong Pil Rhee, *The Breakdown of Authority Structure in Korea in 1960: A Systems Approach* (Seoul: Seoul National University Press, 1982), pp. 25-31, 77-102.

radical stance. As a result, systemic transformation will not occur.

*Path from model 4 to model 8.* Model 4 brings about a situation in which both the military and the authorities, who are risk-averse, initiate concessions. It changes to model 8 in which all the three are able to coexist because none of them wants to generate severe contradiction. Finally, a systemic transformation occurs and the socialist system breaks down.

*Path from model 6 to model 5 or 8.* Model 6 represents the case in which the opposition is moderate while the military and the political authorities are incompatible. There could never, of course, be a coalition between the political authorities and the opposition to exclude the military from the political scene. Rather, being sensitive to a given critical situation, the political authorities would recognize that they have to concede their prerogatives. Model 6 will transform into model 5 or 8. This bifurcation, which depends upon power relationship between the authorities and the military, decides whether or not the system dynamics finally reaches the breakdown.

*Path from model 7 to model 5 or 8.* In model 7 the soft-line military, compatible with the moderate opposition, are split from the political authorities. It shifts to model 5 or 8.

### **Empirical Cases**

The model of dynamics of a socialist system can be applied to the empirical cases. Here we take one case of breakdown of socialist system (the Soviet Union:  $2 \rightarrow 4 \rightarrow 8$ ) and one of no systemic change (China:  $1 \rightarrow 5$ ).

*Soviet Union.* The critical situation at the so-called August 1991 coup represents model 2. The hard-line military and the KGB illicitly took offices of Soviet government while Gorbachev was in vacation in Crimea, whereas the Russian government, the largest Soviet republic, was firmly under the leadership of Yeltsin. Insofar as Yeltsin was the most important advocate for reform policies, his stance was in accordance with the prevailing social demand for broad and radical reform in economy and politics. Since the hard-liners would not meet the social demand and could not be compatible with the political authorities who were still in office, system stress was extremely high. The process in which the opposition, stiffened by Yeltsin, toppled the hard-liners represents a transition from model 2 to model 4. With Bush's announcement that the United States would refuse normal relations with the hard-liners, they had to yield power to reform-minded political authorities. This finally led to model 8 by which the systemic transformation did occur.<sup>9</sup>

*China.* The situation in mid-May 1989 represents model 1. More than one million students and workers took to the streets and demanded democracy, while the political authorities and military centered around Deng Xiaoping and Li Peng were non-conciliatory. The crisis deepened when some students, stimulated by Gorbachev's visit, made hunger strikes in Tiananmen Square and authorities sent troops and imposed martial law. The firm stance of the ruling block was represented by Yang Sangkun when he said that to retreat would mean the downfall of the People's Republic of China. The confrontation between the ruling block and the opposition ended with the June 4 massacre.<sup>10</sup>

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9 Bernard Gwertzman and Michael T. Kaufman, eds., *The Collapse of Communism* (New York: Times Books, 1991), pp. 516–70.

10 Bernard Gwertzman and Michael T. Kaufman, eds., *The Collapse of Communism* (New York: Times Books, 1991), pp. 41–109, Donald Morrison, *Massacre in Beijing*:

## Conclusion

Through analyzing these models, we may draw some conclusions. First, even if a certain socialist system faces a legitimacy crisis, only half the possible paths finally arrive at model 8 and thus lead to a systemic transformation (see Figure 2). This is by no means, of course, the same as a fifty-percent probability.

Second, the models that generate high or very high system stress originally—i.e., unstable models—experience their own paths of transformation within the given socialist system and then arrive at either of two destinations, model 5 or model 8. Both these destination models produce low system stress in common, but their consequences differ radically. While model 5 leads to restoration of socialist order through repression and a disguise of the opposition forces, model 8 brings a breakdown.

Third, the stance of the opposition is not the only determining factor for a systemic transformation (or no significant change). Since the stance of the opposition is one of the indicators for the level of system stress, one may specifically raise a question regarding the relationship between the stance of the opposition and a systemic transformation. However, it would be wrong to say that the stance of the opposition alone can determine the fate of a socialist system. This is so because the stance of the opposition will have different meanings, depending upon the stances of the political authorities and the military.

To sum up, this paper postulated a generalization to examine the dynamics of socialist systems. Legitimation crisis is a condition of breakdown, but the relationship among the political authorities, the military and the opposition forms the intervening mechanism through which the fate of the socialist system under legitimation crisis is decided.