Social Diversity and National Integration[1]

Katsuma MITSUTSUJI

Susumu YAMAKAGE

Graduate School of Arts and Sciences, University of Tokyo,

Komaba 3-8-1, Meguro-ku, Tokyo, Japan.

Email: mitsutsujik@yahoo.co.jp

Graduate School of Arts and Sciences, University of Tokyo,

Komaba 3-8-1, Meguro-ku, Tokyo, Japan.

Email: yamakage@waka.c.u-tokyo.ac.jp

Introduction

Humankind is organized into nations and a nation is regarded as the foundation of contemporary international society. Even a small population, like that of Tuvalu or Palau, has a voice in world politics when it is classified as a nation. Conversely, non-nations have no voice, however large they may be.

Until the mid-twentieth century, the existence of nations was taken for granted. A nation was thought to be something natural, like a family. In the late twentieth century, scholars studying nations and nationalism began to question the assumption and revealed that nations are a man-made product of

---

modern times. Their studies claim that nations were a newly created entity in Europe that spread across the continent during the nineteenth century as well as beyond to non-European populations that were liberated from foreign domination in the twentieth century, as they too became organized into nations.

The most puzzling aspect in the study of nationalism is what factor determines union/division when a population is being organized into a nation or nations. Some peoples unite into a nation while others break apart. Under what conditions do smaller communities succeed in integrating into a larger national community? Under what conditions do they fail in the integration, with minorities demanding separate nationhood? When such nations are under construction, the eventual configuration of the population is indeterminable. Various possible forms of nationhood are pursued or suppressed, often at significant cost. Historically, there were many states that came into being then disappeared in a few years or those that never emerged, though planned.

In this paper we tackle the puzzling question and highlight the relationship between social diversity and national integration. Using multi-agent (or agent-based) simulation methodology, we duplicate an artificial colonial state system in which various nationalist movements compete for the inhabitants' support, here referred to as the Nationalist Emergence Model (NEM). The NEM provides a general setting for controlled experiments to investigate how and what types of nationalism emerge in a multicultural society and under what conditions.

Social Diversity and Nationalism

Since the 1960s, studies have revealed that nationalism is a fairly new organizing principle of world order. They assert nationalism is a doctrine invented in Europe around the beginning of the nineteenth century (Kedourie 1966, 9) and its basic characteristic is supposedly its modernity (Hobsbawm 1990, 14). Some studies try to revise the modernist view of nationalism and highlight instead the pre-modern *ethnie* as the origin of the modern nation. However, the revisionists too agree that nations and nationalism are a wholly modern phenomenon (Smith 1986, 18). They point to previously existing human groups similar to today's nations and that some of them have their origins in pre-modern human groups. Nevertheless, they admit that humankind was reorganized into nations at the beginning of the modern age.

One serious puzzle for nationalism studies is the criteria of nationhood. Among diverse types of populations, some become nations and others do not. The question takes on even more weight when a practical man has to decide which group of population should be treated as a nation and which not. Nationalism studies continue to address the issue of what factor decides whether those who wish and try to become a nation, succeed or do not. Here we recall Renan's famous question, posed at the end of the nineteenth century: "why is Holland a nation, while Hannover and the Grand Duchy of Parma are not? … Why is Switzerland, with its three languages, its two religions and three or four races, a nation, when Tuscany, for example, which is so homogeneous, is not?" (Zimmern 1939, 192). Emerson raised the same question about the issues a plural society and the communities within it have to confront. There are a number of political possibilities for the plural society resulting either in union or in division. He claims we have no answer and must

go on trying to predict and explain whether distinct communities in a plural society are moving toward or away from the larger political society of which they are a part and to clarify under what conditions the population will unite or divide (Emerson 1960, 329-335)

Nationalism studies point out that commonality among constituent communities is an important factor that enables them to build an integrated unit (Hobsbawm 1990, 46-79). Certain elements that members of a populace share seem to make the task of nation building easier. That commonality comes in various forms. Hobsbawm lists language, ethnicity, religion and kingship/empire and calls the bonds that these elements give birth to "popular proto-nationalism." He wrote: "indirectly it [language] was to become central to the modern definition of nationality" (Hobsbawm 1990, 59). Smith lists six components and calls the community that is based upon these elements an "ethnie" (Smith 1986, 22-31). Though they both deny direct continuity between pre-existing homogeneity and modern nationalism, they seem to imply that shared commonalities among members lead them to unity (Hobsbawm 1990, 77).

Conversely, social heterogeneity makes it difficult for a population to integrate into a nation. As nationalism is a political principle, which holds that the political unit and the national unit should be congruent (Gellner 1983, 1), it is natural to assume that a heterogeneous society would have difficulty in integrating itself. Early nationalism studies describe the serious challenges that a mixed and plural region has to grapple with (Emerson 1960, 329-359; Kedourie 1966, 118-140). Nationalists must construct cultural unity and give

it paramount consideration. In polyethnic states, dualism and instability are seen to be endemic and divisive (Smith 1986, 144-152).

Nationalism studies suggest that social homogeneity leads us to successful national integration while social heterogeneity disrupts it. The above studies regard social diversity as decisively important but when they attempt to categorize, classify, or conceptualize nationalism, they too simplify the relationship between social diversity and national integration.

Nationalism studies take note of the dichotomy between political and cultural nationalism. The former is nationalism built upon political unity and the latter upon a cultural one. Kohn introduced the distinction as one between "Western" and "Eastern" nationalism (Kohn 1944). While "Western" nationalism is regarded as civic and territorial, "Eastern" nationalism is seen to be ethnic and cultural. This division is reiterated by Smith (1986) who makes the distinction between territorial and ethnic nationalism. While a territorial nation is based in one's sense of strictly delineated territory and a community of laws and legal institutions, an ethnic nation is a community of customs and linguistic ties, and is based upon a uniform and shared way of life and belief system. When we use such a division, we assume that varied cultural groups are of the same kind and ignore the multidimensionality and complexity of a culture. Depicted cultural units, whether they are organized around language, religion or history, are treated just as "ethnie" (Smith 1986, 22-46, 138-144). Such a generalization is feasible when various cultural elements are presupposed to synchronize, naturally or artificially (Smith 1986, 30-31). Although the multidimensionality of culture is not dismissed by these

studies, it is illustrated as a one-dimensional attribute when defining types of nationalism.

Focusing on the union/division of a population, Deutsch constructs a model of national integration and separation (Deutsch 1966). He points out two social processes in modern society, mobilization and assimilation. Making the distinction between the mobilized and the underlying, and between the assimilated and the differentiated, a population is categorized into four sub-groups. Deutsch presupposes the existence of a predominant group within a population and represents cultural diversity by a ratio between the predominant group and the minorities. Highlighting whether the minorities are successfully assimilated into the dominant group or not, and providing a rigorous measurement methodology, his model teaches very little about the effect social heterogeneity has upon the formation and shaping of communities.

Gellner constructs a typology of nationalism based upon the combinations of three "crucial" factors in the making of a modern society. One of the three factors and the most crucial he believes is cultural unity/duality. Whether those in power and the rest share a common culture or not, and whether the educated and the noneducated share it or not, is seen to be decisive for peaceful nation building. In his typology, cultural diversity decides whether nationalism succeeds or not in integrating the population (Gellner 1983, 88-109). However, Gellner's typology also oversimplifies cultural diversity. He assumes that a society is either monocultural or bicultural and that a population divided into two can represent social heterogeneity in general. He argues that "the complication in the real world arising from the simultaneous

presence in one sphere of three, four or more cultures, does not very seriously affect the argument" (Gellner 1983, 93).

Culture is multidimensional. When nationalism studies highlight the cultural aspects of a population, they enumerate such cultural elements as language, religion, race, ethnicity, territory, history and memory. They admit that none individually can define a nation (Hobsbawm 1990, 5-8). As much as these studies point out the multidimensionality and complexity of culture, they fail to fully encompass it in their models and typologies.

Multi-agent simulation or agent-based simulation provides us with a methodology to illustrate the complexity of culture. The simulation methodology enables us to represent a complex system's property based upon the interaction among agents and we can formalize rather complex interactions that arise from the multidimensionality of a culture. Axelrod (1997) and Cederman (1997) provide the logic behind and hints for the formalization of the relationship between politics and culture.

Axelrod constructed a model of the dynamics of cultural convergence and polarization by using agent-based simulation. Treating culture as a set of cultural elements, he successfully formalized cultural multidimensionality. Axelrod's model expresses cultural change itself. Cultural change is a long-term social change while nationalism studies highlight shorter political processes interlocked with culture.

A cultural element becomes significant only when it is highlighted politically. Gellner distinguishes between two types of culture, high and low. High culture is one sustained artificially and in the modern age that requires political support and underpinning. Low culture is one reproducing itself from

generation to generation without conscious design, supervision, surveillance or special sustenance. Nationalism is the general imposition of high culture upon a society (Gellner 1983, 50-52, 57). In the nation-building process, some cultural elements are emphasized while others are ignored (Emerson 1960: 335). The relationship is not linear. Cederman constructed a model of nationalists' political movements and named it the Nationalist Coordination Model. Distinguishing a communal culture from one that is politically highlighted, Cederman successfully illustrates the relationship between politics and culture, although his conclusion is not very meaningful. Based on the logic of these arguments, we demonstrated the relationship between social diversity and nation building.

Yamamoto (2008) reexamined many of the suggested nationalism theories using multi-agent simulation methodology. He built a virtual state model named Nation and Ethnicity Model of Emergence (NEME) which provides a stage upon which we can recreate the assumptions made in the studies of nationalism and thus examine the theories presented. NEME generates social diversity but does not highlight the relationship between social diversity and national integration. Sakamoto (2005; 2007) also examined the union/division phenomenon using multi-agent simulation methodology. He built a virtual state model that has geographic and demographic characteristics of actual states in present day east Africa and succeeded in recreating the political situation of them. His model shows how a nation's geographical configuration is important for national integration and we confirm his finding in this paper.

A Nationalist Emergence Model: An Overview

The NEM illustrates a colonial state subject to foreign domination and is focused on the rivalry among anti-foreign nationalist movements. Below is an overall illustration of the model. **Figure 1** shows the colonial state system consisting of four hundred communities arranged on a square grid. Each community represents a small population that is culturally homogeneous and politically united. The grid represents the geographical configuration of the communities.

Fig. 1   Colonial State System <Segregated>

000	000	000	000	000	000	000	000	000	000	010	010	010	010	010	010	010	010	010	010
000	000	000	000	000	000	000	000	000	000	010	010	010	010	010	010	010	010	010	010
000	000	000	000	000	000	000	000	000	000	010	010	010	010	010	010	010	010	010	010
000	000	000	000	000	000	000	000	000	000	010	010	010	010	010	010	010	010	010	010
000	000	000	000	000	000	000	000	000	000	010	010	010	010	010	010	010	010	010	010
001	001	001	001	001	001	001	001	001	001	011	011	011	011	011	011	011	011	011	011
001	001	001	001	001	001	001	001	001	001	011	011	011	011	011	011	011	011	011	011
001	001	001	001	001	001	001	001	001	001	011	011	011	011	011	011	011	011	011	011
001	001	001	001	001	001	001	001	001	001	011	011	011	011	011	011	011	011	011	011
001	001	001	001	001	001	001	001	001	001	011	011	011	011	011	011	011	011	011	011
002	002	002	002	002	002	002	002	002	002	012	012	012	012	012	012	012	012	012	012
002	002	002	002	002	002	002	002	002	002	012	012	012	012	012	012	012	012	012	012
002	002	002	002	002	002	002	002	002	002	012	012	012	012	012	012	012	012	012	012
002	002	002	002	002	002	002	002	002	002	012	012	012	012	012	012	012	012	012	012
002	002	002	002	002	002	002	002	002	002	012	012	012	012	012	012	012	012	012	012
003	003	003	003	003	003	003	003	003	003	013	013	013	013	013	013	013	013	013	013
003	003	003	003	003	003	003	003	003	003	013	013	013	013	013	013	013	013	013	013
003	003	003	003	003	003	003	003	003	003	013	013	013	013	013	013	013	013	013	013
003	003	003	003	003	003	003	003	003	003	013	013	013	013	013	013	013	013	013	013
003	003	003	003	003	003	003	003	003	003	013	013	013	013	013	013	013	013	013	013

The virtual colonial state system is multicultural, like an actual one, and each community within it has its own cultural identity. Cultural identity is described as a list of features. For each feature there is a set of traits, which are the alternative values the feature may have (Axelrod 1997, 154). We describe a community's cultural identity with a set of three digits. The first feature represents the attribute that sets the colonial state apart from the foreign rulers and all communities in a colonial state share a zero as their first feature. This value identifies their belonging to the colonial state. The second and third features stand for the communities' cultural attributes that decide their behavior in the formation of nationhood, such as religion, language, ethnicity or others. Each community has its own values that reflect these features. To be concrete, suppose we make the second feature religion and the third one language. **Figure 1** illustrates the colonial state where two religions and four languages prevail. In this case, the second features range from 0 to 1 and the third features range from 0 to 3. There are eight possible identity strings: 000, 001, 002, 003, 010, 011, 012, and 013. In NEM the number of communities that share a common cultural identity is arranged to be as equal as possible.

In this study we assume two types of configurations. The first type represents a society whose inhabitants are culturally segregated and where the cultural groups are placed separately and in an orderly manner in the grid. **Figure 1** shows a culturally segregated configuration. The second represents a society whose inhabitants are mingled and where the communities are positioned randomly. Both configurations are ideal types because in the real world inhabitants would be more moderately mingled/segregated.

Nationalist movements compete for the communities' support within the system and carry their own political symbols representing the trait the movement highlights, while suppressing others. The political symbol can be described as a cultural identity that the movement emphasizes and it can choose not to commit to one or more of the features. When two religions and four languages prevail in the state, there are fifteen possible symbols: 000, 001, 002, 003, 00*, 010, 011, 012, 013, 01*, 0*0, 0*1, 0*2, 0*3 and 0**. The asterisk marks the movement's indifference and lack of commitment to a feature. Political symbols with asterisks therefore have an inclusive character (Cederman 1997).

The movements are assumed to have political programs that cherish the cultural identity its symbols reflect. It is thus natural for a given community to prefer the movement with a similar political symbol to that of others. The community whose cultural identity is 000 prefers the political symbol 001 to political symbol 011, as it has greater similarity with the former than with the latter. We can define similarity as the fit value, the difference between the number of corresponding traits minus the number of noncorresponding ones. We do not count the feature to which the political symbol is indifferent and marked with an asterisk. A community has a fit value for each political symbol. **Figure 2** shows some of the fit values between the communities' cultural identities and political symbols.

Fig. 2 Fit Values

		Political Symbol				
		Parochial	Parochial	Religious	Linguistic	Ecumenical
		000	013	01*	0*0	0**
Community's Identity	000	+3	-1	±0	+2	+1
	010	+1	+1	+2	+2	+1
	001	+1	-1	±0	±0	+1
	011	-1	+1	+2	±0	+1
	002	+1	-1	±0	±0	+1
	012	-1	+1	+2	±0	+1
	003	+1	+1	±0	±0	+1
	013	-1	+3	+2	±0	+1

Those movements with fewer specific symbols can expect broader support from the population and because they have a more inclusive character. Conversely, those with more specific symbols can expect strong support from a narrower portion of the population as they have more of an exclusive character. When two religions and four languages prevail in a colonial state, the political symbol 000 can get support from communities whose cultural identity is 000, 001, 002, 003, or 010. It can expect strong support from ones whose identity is 000. Conversely, the political symbol 0** can expect support from all communities, although weak.

The nationalist movements can be classified into four groups. First, the parochial nationalists carry the most specific symbols: 000, 001, 002, 003, 010, 011, 012, and 013. Second, the religious nationalists carry the symbols which include an asterisk in the third feature, like 00*, 01*, 02* and 03*. The religious nationalists highlight the second feature (religion), committing to that specific option, and are indifferent to the third (language). Third, the linguistic nationalists carry the symbols that contain an asterisk in the second feature, like 0*0, 0*1, 0*2 and 0*3. The linguistic nationalists highlight only the third feature. Fourth, the ecumenical nationalists carry the least specific symbol: 0**. This symbol only highlights the first feature and cares neither for the second nor for the third. It can expect support from all communities in the colonial state but its fit values for them are low[2].

---

[2] Deutsch (1966) pointed out that the characteristic of inclusive or exclusive of the political symbol to be one of six factors that affects the rate of assimilation.

Nationalism is a collective behavior. Communities are strongly influenced by others' choices. Communities prefer the symbols others select. Formally, we can define the preference as the content value.

$$C_{is} = F_{is} * (\alpha + (1 - \alpha)(n_s / n_{all}))$$

C_{is} : Community i's content value for political symbol s

F_{is} : Community i's fit value for political symbol s

α : parameter deciding communities' autonomy

n_s : number of the communities supporting political symbol s

n_{all} : number of the communities in Community i's neighorhood

Like the fit value, each pairing of community with a political symbol has a content value. Unlike the fit value, the content value   each community has for   a political symbol changes according to others' choices. The more neighbors that select a symbol, the more the community's content value for it increases and vice versa.

Initially, all the communities are forced to obey the foreign government. In each time period, a community is randomly selected and activated. It decides which movement it will support in the next time period. It compares the content value it has for each political symbol, including the one it supports at the moment, and decides stochastically whether to change the political symbol it supports for another in the next period. Formally, the probability of switching support is defined as:

$$P(s^* \Rightarrow s^t) = k(c_{is^*} - c_{is^t})$$

k : proportionality constant

s*   : political symbol that Ci supports

s   : political symbol that Ci targets

An activated community examines all political symbols in random order and checks whether to switch its support or not. Once a community switches its support or inspects all the symbols, it becomes inactivated. Then the next period starts and another community is activated. When no community has the possibility to switch its support, the simulation run finishes.

The NEM highlights the early stage of nationalism. At this stage, the relationships among the people involved are in flux and the composition of the nation itself remains undetermined (Emerson 1960, 332). Nationalism studies claim that this stage is extremely significant. Gellner (1983, 96) points out that ethnic and cultural differentiation arose through virulent and decisively explosive conflict at the earlier stages of our modern age. Hobsbawm argues that the transition from phase B, when a body of pioneers or militants of a "national idea" begin to politically campaign the idea, to phase C, when nationalist programs acquire mass support, is evidently a crucial moment in the chronology of national movements.

Simulation Results

To introduce how the model works, we show a typical run of the model. When the simulation starts, there exist no active political symbols and all communities are forced to comply with the foreign government's symbol.

Very soon some of the communities decide to support certain nationalist political symbols. Selecting political symbols independently, they support different political symbols. In due time, the communities' initial decisions change the scenario. When communities support a political symbol based on the neighbors' content value for it, the probability that they will support it increases. As more communities in a neighborhood join a movement, its symbol becomes more attractive to other communities. Eventually, the selection of political symbols starts. The communities abandon support for weak political symbols and join the influential movements, gathering many communities' support because their symbols give higher content value than the weak ones. At last, the communities' support converges into a few political symbols and the system is in equilibrium. Since a community has its own cultural identity and its location in the configuration has strong relevance for others' choices, the communities do not necessarily converge into one political symbol.

We can thus show the systemic results of the experiment. Using the NEM as a platform, we can examine various patterns of social diversity and their effect on national integration. This paper focuses upon the relationship between social diversity and political integration and the effect of geographical configuration upon political integration. First, by placing various social diversities into the system, we can examine the effects of homogeneity/ heterogeneity on nationalist movements. We experimented with everything from a very homogeneous system, where all the communities share a religion and a language, to an extremely heterogeneous system, where ten religions and ten languages prevail. Second, comparing two configurations, segregated

and mingled, we could easily examine how geography influences the national integration process.[3] We ran ten replications with each condition.

Figures 3 and **4** show the unity values under various social conditions. The unity value is defined as the effective number of the active political symbol and represents how communities' support is divided among political symbols.[4] A low unity value means that the population is integrated under a small number of political symbols and when it is one, one political symbol has the support of all communities. When the unity value is high, the population is divided into many groups. **Figure 3** shows the results when cultural groups are segregated and **Figure 4** shows the results when cultural groups are mingled. We chose the median value for each condition.

---

[3] We learned the importance of geographical configuration from Sakamoto's findings. His model recreated not only the geographical configuration but also demographic ones when using GIS data.

[4] The unity value is defined as

$$UnityValue = \frac{1}{p_1^{p_1} p_2^{p_2} \cdots p_n^{p_n}}$$

P_i : The proportion of the communities in the system which support political symbol i
n : The number of active political symbols

Our thanks to Takuto Sakamoto for giving us advice.
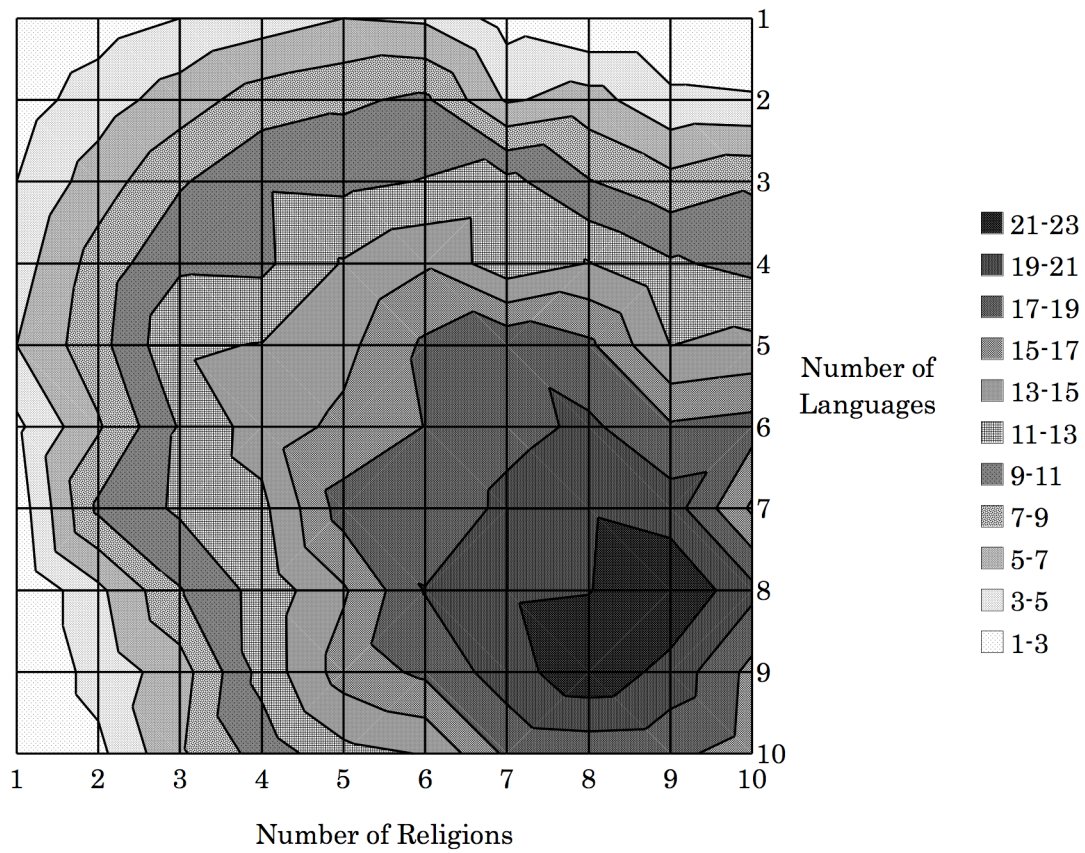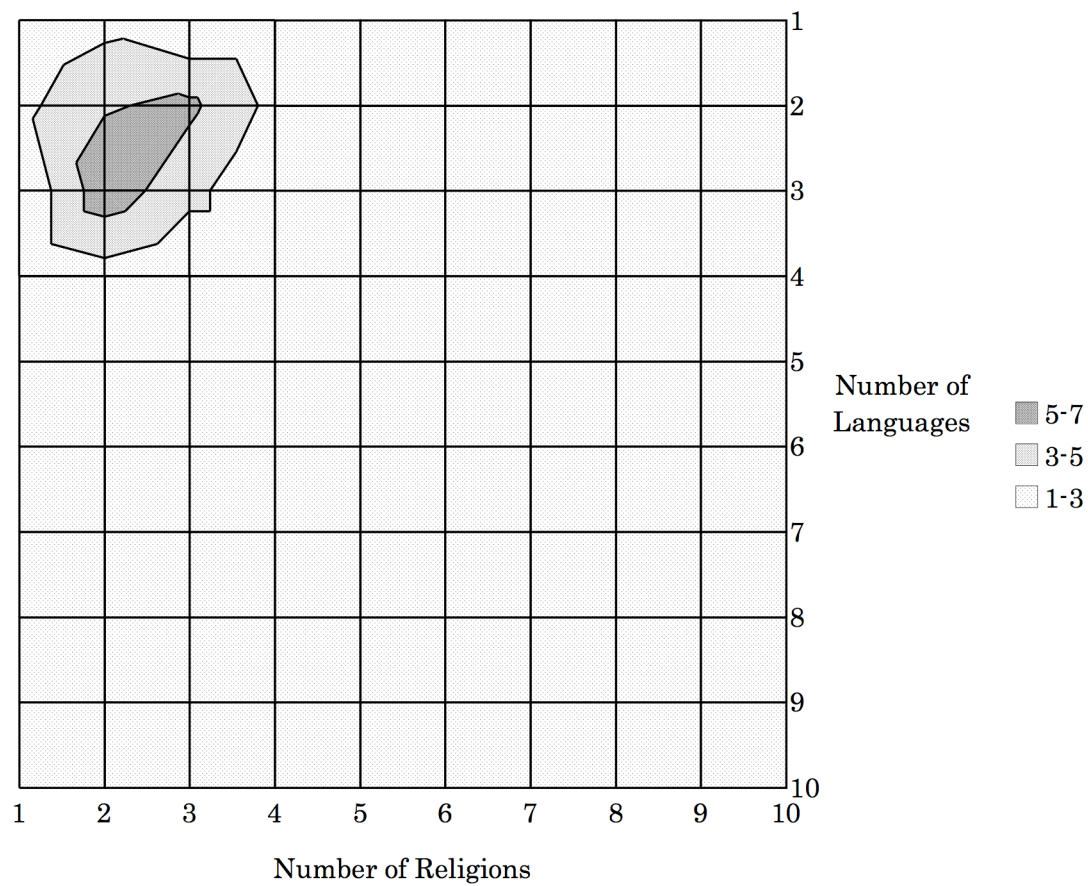
Fig.3 Unity Value under Various Social Diversity
<Segregated>

Fig.4 Unity Value under Various Social Diversity
<Mingled>

The difference between **Figure 3** and **Figure 4** shows what a strong impact geographical configuration has upon national integration. When cultural groups are mingled, the unity value decreases dramatically. National integration is vastly easier to achieve in mingled populations.

One more finding reveals that the relationship between social diversity and national integration is not linear at all. Social heterogeneity does not always mean political division and social homogeneity does not always lead to unity within the population. The peak of the distribution indicates under which conditions national integration is most difficult to achieve. Segregated or mingled, the peak does not position upon the most heterogeneous system and this means social heterogeneity does not always lead a population to political fragmentation.

Figure 5 shows how the results change as the number of religions and languages increase in the segregated population. The results of ten replications under each condition are plotted.[5] When one religion and one language prevail in the colonial state system, national integration is very easy to achieve. A parochial national movement achieves support from all of the communities. However, an increase in the diversity of languages makes it impossible for one political symbol to integrate the population. The more languages prevail in the system, the more different political symbols acquire stable support by the end of a simulation run.

---

[5] When runs resulted in the same unity value, we show the number of replications.

Fig. 5 Unity Value Change with Scoial Heterogeneity Increase
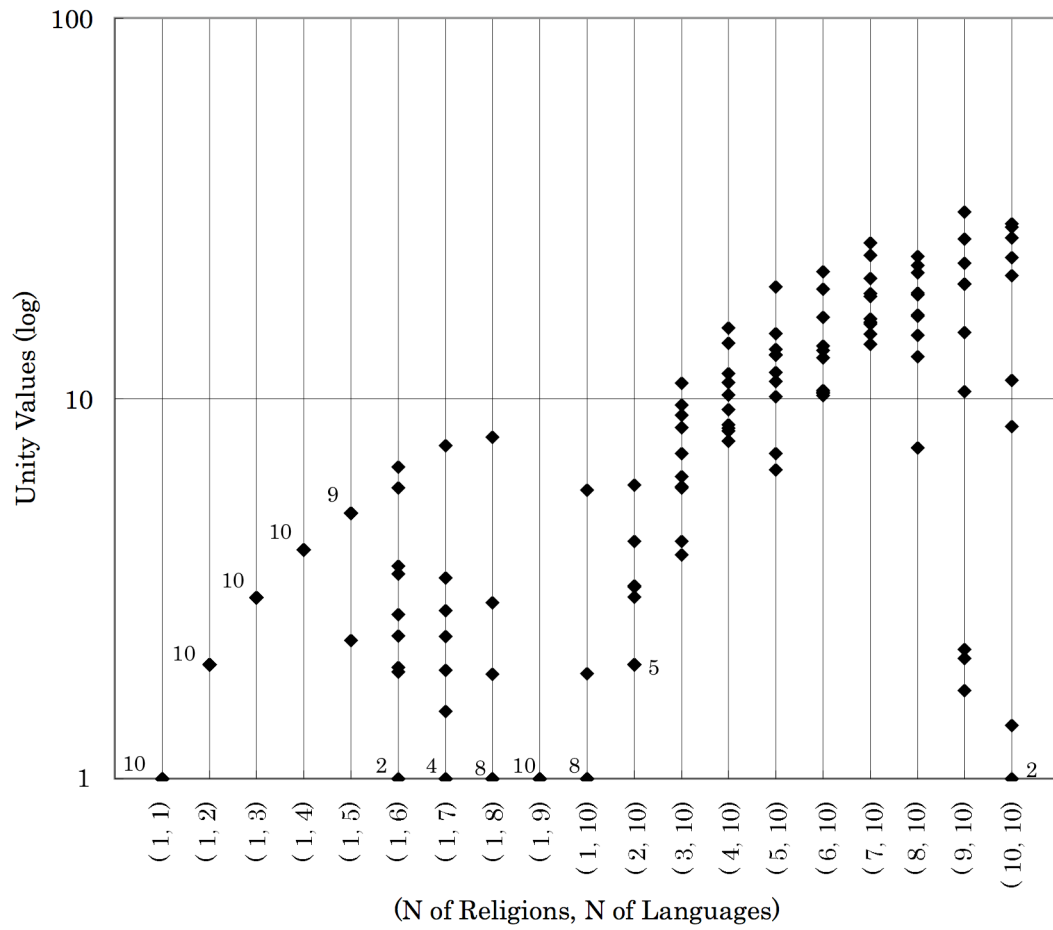
But this is not the end of the story. When a population is more heterogeneous and the number of languages increases, a religious national movement, which commits only to religion and is indifferent to language, gets a chance to prevail. **Figure 5** shows that a religious national movement successfully integrates a population where eight or more languages are present.

Next, we increased the number of religions. The possibility of integration decreases again dramatically and the unity value increases. This time, the more religions prevail in the system, the more politically fragmented is the population. However, as the system becomes more heterogeneous, an ecumenical nationalist movement gets a chance to integrate the system successfully. **Figure 5** shows that in a ten-religions/ten-languages system the population is successfully integrated into a nation twice in ten simulation runs.

Figure 3 and **Figure 4** show there are four types of situations that enable a political symbol to gather support from all the communities, that is to say, to achieve national integration. With one religion and one language, with one religion and many languages, with many religions and one language, or with many religions and many languages, the colonial population is successfully integrated. Surprisingly, social heterogeneity, whether religious or linguistic, or both, still allows for the integration of a population.

In each situation, a distinct political symbol succeeds in integrating the population. In a one-religion/one-language system, which represents a very homogenous population, a parochial symbol very quickly achieves popular support. No other symbol can rival it. While in a one-religion/many-languages system, which represents an asymmetrically fragmented population, a

religious symbol predominates. In the other type of asymmetrically fragmented population, that is, in a many-religions/one-language system, a linguistic symbol prevails and monopolizes support. In a many-religions/many-languages system, which represents a truly fragmented population, an ecumenical national symbol gets a chance to give birth to national integration.

In sum, social heterogeneity does not always run counter to political unification. For a homogenous population, political unification is easy to achieve but as the population becomes heterogeneous, political unification is decreasingly likely to emerge. However, the logic is far from linear. Paradoxically, social diversity can also lead to unity. Social diversity can bring about a kind of inclusive nationalism.

Conclusion

Nationalism studies presuppose that social heterogeneity makes it difficult for a population to integrate themselves and that commonality among constituent communities is an important factor which enables a national unity.

The relationship between social diversity and national unity is not so simple. Using multi-agent methodology, we can examine the complexity. Nationalist Emergent Model ,which illustrate virtual colonial state and political movements' rivalry there, shows us it is not always so. Conversely, social heterogeneity is advantageous to certain political movements and enable them to integrate a population.

References

Axelrod, Robert (1997) The Complexity of Cooperation. Princeton: Princeton University Press.

Cederman, Lars-Erik (1997) Emergent Actors in World Politics: How States and Nations Develop and Dissolve. Princeton: Princeton University Press.

Deutsch, Karl (1954) Political Community at the International Level: Problems of Definition and Measurement. Garden City : Doubleday.

Deutsch, Karl (1966) Nationalism and Social Communication: An Inquiry into the Foundations of Nationality. 2nd edition, Cambridge, MA: MIT Press.

Deutsch, Karl (1969) Nationalism and Its Alternatives. New York: Knoph.

Emerson, Rupert (1960) From Empire to Nation: The Rise to Self-assertion of Asian and African Peoples. Cambridge, MA: Harvard University Press.

Gellner, Ernest (1983) Nations and Nationalism. Ithaca: Cornell University Press.

Hobsbawm, Eric J. (1990) Nations and Nationalism since 1780: Programme, Myth, Reality. Cambridge, England: Cambridge University Press.

Hroch, Miroslav (2000) Social Preconditions of National Revival in Europe: A Comparative Analysis of the Social Composition of Patriotic Groups among Smaller European Nations. New York: Columbia University Press.

Kedourie, Elie (1960) Nationalism. London: Huntchinson University Library.

Kohn, Hans (1944) The Idea of Nationalism: A Study in Its Origins and Background. New York: Macmillan Company.

Mitsutsuji, Katsuma (2002) 'Kokumin no Togo to Bunretsu (National Integration and Disintegration)', in Susumu Yamakage and Shota Hattori eds, Konpyuta no nakano Jinko Shakai. Tokyo: Kyoritsu shuppan, 176-194. [Japanese]

Sakamoto, Takuto (2005) 'Hunso to Doin (Conflict and Mobilization)', Kokusaiseiji, 140, 73-89. [Japanese]

Sakamoto, Takuto (2007) 'Simulating Territorial Integrity and Dis-Integrity of States I: Integrative Application of MAS and GIS', A Study on Dynamics of Social Order with Application of the Multi-Agent Simulator　Working Paper Series No.14.

Sakamoto, Takuto, forth coming, Ph.D dissetation, [Japanese]

Smith, Anthony (1986) Ethnic Origins of Nations. Oxford, UK: Blackwell Publishers.

Yamamoto, Kazuya (2008) Neishon no Fukuzatsusei (The Complexity of Nation) Tokyo: Shosekikobo Hayama. [Japanese]

Zimmern, Alfred (1939) Modern Political Doctrine. London: Oxford University Press.