KINSHIP AND INTER-STATUS GROUP RELATIONSHIP: A COMPARISON BETWEEN KOREA AND U.S.

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The openness of social structure is one of the central topics in the study of social stratification. This study focuses on the significance of education in social relationship. Based on comparable data from Korea and United States, this study shows that the highest degree earned works as a significant sign of attractiveness of an individual for social interaction. The restricted latent class model reveals that there are three status groups determined by the possession of two certifications in both countries. The results also show that the relationship with non-kin alters among Koreans is more homogeneous in terms of educational attainment. The difference of educational attainment across cohorts does not fully explain this homogeneity. The implications of these findings will be discussed.

Key Words: Openness of social structure, Status group, Internal Homogeneity, Kinship

INTRODUCTION

The openness of social structure is one of the central topics in the study of social stratification. Studies have asked about the extent to which group membership exerts influence on the life chances and life styles or patterns of social interaction. If the boundaries between social groups are weak, the social structure of that society is assumed to be open. Traditionally, questions about the “openness” of social structures have been measured by assessing the extent of inter — and intra generational occupational mobility, while alternative ways of measuring the openness of society focus on how much people from different group interact with one another. (Laumann and Senter 1976) While the former approaches are theoretically based on the concept of a “social class” that shares common life chance, the latter is based on the concept of status group that share life-style and common informal social interaction (Weber, 1946).

Studies of the interaction among different status group are mainly based on data concerning the pattern of selection of marriage partners. Those studies observe homogamous tendencies in terms of race, religion and social economic status in the U.S. (Kalmijn, 1991, 1998). In addition, it is important to note that (1) the degree of educational homogamy is stronger
than the degree of social-origin homogamy and (2) education has become a more substantial distinction in American society (Kalmijn, 1991: 521).

While there is only a limited number of comparative studies that include Korea or East Asia more generally, Smits et al. (1998) assess the degree of educational homogamy in 65 countries. According to them, East Asian countries manifest stronger educational homogamy, controlling for the degree of economic development and political democracy, than western countries. They attribute this pattern to ‘the combination of a traditional family orientation and a strong emphasis on formal education as a channel of social mobility’ (282). They also suspect that one of the reasons political democracy affects the extent of educational homogamy is general trust. According to their interpretation, general trust, often related to political democracy (Inglehart, 1990), facilitates intergroup relationships. In fact, this interpretation is highly consistent with the central argument of social capital studies, which focus on collective level outcome. The core assumption of the social capital studies is that the high level of general trust or strong confidence in the government enables individuals to form relationships outside close status-equivalent relationships where trust is based on direct knowledge. It is these ties that provide the opportunity to expect general reciprocity with each individual (Putnam, 1993), reduce transaction costs in economic transactions (Fukuyama, 1995; Arrow, 1974), and facilitate global coordination and cooperation among social groups, by forming cross-cutting ties between otherwise compartmentalized groupings (Granovetter, 1973; Wolcock, 1998).

Those literatures commonly suggest that educational homophily in social networks is higher in Korea than among Americans. All three factors discussed in Smits et al predict higher homophily Among Koreans. First, Korea follows the Confucian tradition. Second, due to the inverted U relationship between economic development and educational homogamy, education homophily in Korea is expected to be higher than in the U.S., one of the most developed countries. Third, Korea has a very limited history of political democracy, compared with the U.S. In fact, the World Value Survey shows that the level of general trust is higher among Americans than Koreans (Inglehart, 1990).

This study compares the extent of educational homophily of Koreans and Americans in terms of Koreans and Americans. Unlike the previous studies focusing on spouses, the alters in confiding networks could be highly heterogeneous in terms of age and other structural parameters (Blau, 1977). Hence, it is possible that the observed homophily can be influenced by the intersection of other structural parameters. For example, the difference in
educational attainments of Koreans across age groups is relatively larger than among Americans, the same extent of age homophily could lead to higher observed homophily in education among Koreans. Given this, we need to examine whether educational homophily is still stronger in Korea, by restricting relationships to those where the age of ego and alters are quite similar.

Another important contribution of this study is that it attempts to identify the proper classification of educational attainment, regarding the pattern of social interaction. The previous studies use the classification scheme which researches impose by either simply adopting the categories used in data or collapsing rather arbitrarily.

However, it is possible that classification scheme used in those researches does not reflect the real boundary that most actors draw in reality. In comparative studies, it is more critical to use adequate classification system which fits the reality in each country. Therefore, following Weber’s insight that status group is a community sharing life style and chance of social interaction, we tried to identify educational group that shares similar pattern of social interaction.

EDUCATION, SOCIAL RELATIONSHIPS, AND STATUS GROUP

Educational attainment denotes status characteristics as distinct from human capital in contemporary society (Bidwell, 1989). That is, education is regarded as a signal of the attractiveness of social interaction as well as an indicator of productive-enhancing knowledge and skills. In fact, the significance of education in marital formation has been rising while that of ethnicity, social class and religion has been relatively diminishing (Kalmijin, 1991, 1998). Therefore, the return of education can be discussed in terms of symbolic value, partly independent of socio-economic attainment, such as income and occupation prestige. The symbolic value of education has already been introduced to explain non-linear relationships between socio-economic outcomes. That is, certification becomes valued ‘beyond the marginal increment of learning that may be achieved between third and fourth year of high school or college’ in the labor market (Berg, 1971: 26). This effect has been explained by either bounded rational behavior of employers or one of the strategies for closure. Screening theory suggests that certification indicates some latent traits; stability, loyalty and interpersonal skills (Berg, 1971, Bridges, 1998) to the employer who is confronted with the uncertainty of a worker’s productivity. On the other hand, Collins (1973, 1979) proposes that “employment requirements reflect the efforts of compet-
ing status groups to monopolize or dominate jobs” (Collins, 1973: 1002, 1979). What is more important in our concern is the rewarding structure resulting from credentialism. Building on Bidwell (1989), figure 1 describes four alternative relationships between education and its symbolic value.

First, model (a) suggests that the symbolic value of education is linearly related with education. One additional year of schooling uniformly increases the attractiveness in a social relationship over the whole range of educational attainment. Model (b) shows that the return of education departs from a linear relationship, although education monotonically increases the symbolic power of individuals. It depicts a substantial increase in the attractiveness of individuals that is not related to the highest degree attained, such as a high school diploma or a college degree. Among those with the same degree, there is a substantial variation in the symbolic return of education and the “within variation” is larger when compared with the “between-certification variation.” On the other hand, model (C) assumes the “credential stair-step function,” which shows that the attractiveness of individuals is greatly increased when they obtain a high school diploma or college degree. If the increment in intercept through certification (c-1, c-2) is substantially large relative to the slope, which indicates the effect of one addi-
tional year of schooling given the same final certification, we expect that the symbolic value is generally determined by certification. Model (D) expresses an extreme situation. In this model, the symbolic value of education is totally determined by certification. Within the same certification status, the difference in years of schooling or highest institution attended does not matter. For example, there is no difference in attractiveness between 14 years of schooling and 15 years of schooling if the condition of certification is identical.

Based on the assumption that education is only a dimension of status characteristics and that the probability of network formation between actors is entirely determined by the symbolic power of education, we can hypothesize four association models regarding patterns of social interaction: (a) a uniform association model; (b) a RC association model; (c) an internal homogeneity model; (d) a collapsibility model.

Reserving detailed descriptions to a later section, when model (c) or model (d), the latent class analysis provides us a classification scheme not based on the scheme of classification research imposes on (Blau, 1977), but based on similarity of specific outcome. For example, when they are applied to inter-generational mobility tables, and they group several occupational categories into fewer groups, or social classes that shares similar pattern of social mobility. In the same vein, when they are applied to a social interaction table, they enable us to identify some groups that exhibit similar interaction patterns which can be called as status group or a community that exhibits similar life style and pattern of social interaction (Weber, 1946).

DATA AND METHOD

The data for the United States are the 1985 GSS social network items which ask respondents to name core discussion partners up to five persons and to report relevant characteristics of alters and the relationships. These data have been studied by a number of researchers for both identifying the features of personal networks among Americans (Marsden, 1987, 1988; Moore, 1991; Louch, 2000) and comparing it with other nations (Blau et al., 1991, Fischer and Shavit, 1995). For comparability, the age of the American sample is restricted to persons aged 20 to 59.

The Korean data are drawn from a national survey conducted by ISDPR (Institute for Social Development and Policy Research) at Seoul National University. The survey use the GSS name generator with slight modifications. Instead of asking about the duration and contact frequency of ties, they ask about discussion topic. Regarding alters’ characteristics, regional
background and occupation are asked in Korea, while race/ethnicity and religious affiliation are asked in the U.S. Finally, while the GSS measures the relationships among alters within three categories, the Korean data ask only whether they know each other well or not. With these three modifications, the wording of the name generator is identical. Therefore, the comparison can be quite systematic. Sampling for the Korean data was designed to represent the Korean population between 20 to 59 years of age, by region and gender. Among 1768 respondents, the highly educated was slightly oversampled. In the empirical analysis, 31 cases are excluded because they did not provide adequate information on tie-characteristics.

Breiger (1981) proposes an internal homogeneity model for identifying boundaries of social classes by aggregating occupations that share similar chances for social mobility. The model focuses on the various subsets of a mobility table circumscribed by a single partition of categories imposed simultaneously both on the rows and columns of the table. In his application of this model to the inter-generational mobility table, he hypothesizes that the occupation of origin and occupation of destination exhibits null association within $C^2$ (where $c$ is the number of class models hypothesized) sub-tables formed by crossing the occupations in any class A and in any class B (where A and B may be same class) (1981, 578). This notion is expressed in (1)

$$F_{ij} = \alpha \beta_{ij} \delta_{ik} B_{ik} \Gamma_{jk} \text{ for } (i, j) \in S_k$$

which is subject to $\Pi_i \beta_{i} B_{ik} = \Pi_{j} \gamma_{j} \Gamma_{jk} = 1$ over all $i$ (and $j$) of $k^{th}$ sub-tables.

Therefore, this model simply hypothesizes simple row-column independence within each sub-table. Based on this model, he tests several hypotheses on the way of constructing social classes, based on occupations. The conventional test procedure of a log-linear identified model where the hypothesized class structure describes occupational mobility adequately, or equivalently, the hypothesized model properly specified ‘the manners which occupations are to be mapped into social class’ (Marsden, 1985: 1002). This study applies the internal homogeneity model to 1985 social network data and 1996 Korean data.

If we discuss this model in the context of GSS data, the eight educational categories in the GSS can be collapsed into a smaller number of status groups. Specifically, if we assume that the ownership of two certifications determines the membership of a status group as in hypothesis 1 (three sta-
tus situation), the educational category of ego and alter is independent in each of 9 tables. Note that the probability of being assigned to each sub-table can differ in the internal homogeneity model. For instance, the three educational categories that comprise the middle status group (having a high school diploma) exhibit very similar pattern of interaction within five sub tables involved. However, the probability of being associated with a high status group and low status (hence, middle status group) can be, in principle, different across three educational categories. In other words, the status group of an alter depends on the educational attainment of an ego within same status group. If such is the case, the status situations of the three educational attainment groups are not identical. Hence, the internal homogeneity model does not summarize the results of association table without a loss of information (Goodman, 1981). In spite of this limitation, the internal homogeneity model efficiently aggregates educational categories into status groups that exhibit similar (not identical) patterns of social relationship in the association table (Marsden, 1985: 1007), because salient status differences would produce some dependence between educational categories in multiple sub-tables. The first part of the result section examines whether the three-status group hypothesis, determined by ownership of either of two certifications, explains the data reasonably well, by comparing this hypothesis with several alternative hypotheses regarding the way educational categories can be collapsed into a status group.

To compare the strength of educational homogeneity between the U.S. and Korea, the conditional association model is used. In these models, the country is treated as a control variable to see the pattern and extent of association between the education of ego and alters.

The log odds ratio of this model can be written as

\[
\ln \left( \frac{F_{ijk}F_{(i+1)(j+1)k}}{F_{i(j+1)k}F_{i(j+1)k}} \right) = \phi_k (\mu_{(i+1)k} - \mu_{ik})(\nu_{(j+1)k} - \nu_{jk})
\]  

(2)

I will present the results of the quasi-symmetry model among other models (Clogg and Shihaden, 1994: 125), partly because it has been shown that the model best explains the association of ego and alter’s education in each country (Marsden, 1988) and partly because models allowing scores of row and column to vary freely across tables is not effective for examining the strength of association. Following Yamaguchi, (1987) I will test whether symmetric effects, given different marginal frequencies, are uniformly larger in one country than the other. (for the notation, See Yamaguchi, 1987: 485)
RESULTS

We test if the two certifications significantly affect status situations by applying the internal homogeneity model. Other alternative specifications are also applied. Hypothesis (a-1) assumes that a college degree is the only indicator of a positive status situation. Likewise, hypothesis (a-2) predicts that a high school diploma is the only important certification. Two other alternative hypotheses concern the status of bordering categories of middle-status groups expected in hypothesis 1. The third alternative hypothesis predicts that a high school diploma can be clustered with a less educated group, while some college educated and those with junior college degree comprise a middle status group. On the other hand, in the fourth alternative hypothesis, those with associate degrees have a similar status situation to those with a college degree and more, rather than some college or a high school diploma.

Each of the five hypotheses is applied to GSS data by fitting the internal homogeneity model. Table 1 reports the likelihood ratio chi-square statistics ($G^2$) for each of the five applications of model (1). The fit of our main hypothesis is acceptable on a conventional level of significance. One the other hand, all the other alternative hypotheses except (Ha-4) do not show an acceptable fit. The rejection of Ha-1 and Ha-2 shows that the two-status group hypothesis does not describe reality well. On the other hand, the

<table>
<thead>
<tr>
<th>Model</th>
<th>G²</th>
<th>df</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Internal homogeneity model</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>H: Less than diploma/less than college degree/college degree</td>
<td>20.92</td>
<td>18</td>
<td>.28</td>
</tr>
<tr>
<td>Ha1: less than college degree/college degree +</td>
<td>165.09</td>
<td>28</td>
<td>.00</td>
</tr>
<tr>
<td>Ha2: Less than diploma/high school diploma +</td>
<td>87.18</td>
<td>28</td>
<td>.00</td>
</tr>
<tr>
<td>Ha3: up to diploma/less than college degree/college degree +</td>
<td>43.32</td>
<td>17</td>
<td>.00</td>
</tr>
<tr>
<td>Ha4: less than diploma/ up to some college/associated degree +</td>
<td>23.12</td>
<td>18</td>
<td>.19</td>
</tr>
<tr>
<td>Association model</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Quasy symmetry model</td>
<td>46.34</td>
<td>21</td>
<td>.001</td>
</tr>
</tbody>
</table>

* for the results of a variety of association model which turn out to be inferior model to quasy symmetry mode, see Marsden (1988)
The unacceptable fit of Ha-3 shows that a high school diploma plays a substantial role in determining the status situation of individuals. Ha-4, as well as hypothesis 1, describes the data well, which suggests that the status of those with a junior college degree is somewhat ambiguous. However, hypothesis 1 can be regarded as the best fitting model since the likelihood ratio chi-square is slightly smaller than that for HA-4, given the same number of degrees of freedom. Hence, we can conclude that there are three status groups that differ with respect to its highest degree.

The bottom half of table 1 presents a comparison of the internal homogeneity model with the models that do not try to collapse the categories of educational attainment.

The conventional comparison of chi-square test shows that the internal homogeneity model from hypothesis 1 performs better than the saturated model, which is a superior model to “quasi-symmetry”, “the best fitting model” without collapsing the raw educational categories (Marsden, 1988). Hence, the three-status group can better explain the association pattern of educational groups.

Table 2 presents the likelihood ratio test statistics ($G^2$) of association models and for internal homogeneity model for the classifications of ego and alters’ education among Koreans (see Marsden 1998 for results for some corresponding models for Americans).

Inspection of table 2 reveals that the homophily tendency explains about 80% ($=(1769.17-371.47)/1769.17$) of the patterning of citations. Homogeneous

**TABLE 2. ASSOCIATION MODELS AND THE INTERNAL HOMOGENEITY MODEL FOR THE CLASSIFICATIONS OF EGO AND ALTERS’ EDUCATION (KOREAN)**

<table>
<thead>
<tr>
<th>Model</th>
<th>$G^2$</th>
<th>df</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>A. Association models</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Independence</td>
<td>1769.17</td>
<td>36</td>
<td>.000</td>
</tr>
<tr>
<td>Quasi-independence</td>
<td>371.47</td>
<td>29</td>
<td>.000</td>
</tr>
<tr>
<td>Differential inbreeding, uniform association</td>
<td>100.97</td>
<td>28</td>
<td>.000</td>
</tr>
<tr>
<td>Differential inbreeding, homogeneous row and column effect model</td>
<td>77.69</td>
<td>23</td>
<td>.000</td>
</tr>
<tr>
<td>Differential inbreeding, heterogenous row and column effect model</td>
<td>66.98</td>
<td>18</td>
<td>.020</td>
</tr>
<tr>
<td>Quasi-symmetry</td>
<td>28.11</td>
<td>15</td>
<td>.000</td>
</tr>
<tr>
<td><strong>B. Internal homogeneity model:</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less than high school/high school and associate degree/bachelor and more</td>
<td>19.49</td>
<td>11</td>
<td>.052</td>
</tr>
</tbody>
</table>
row and column effects significantly improve the uniform association models (df=5, $G^2=23.30$, $p=.000$). To allow the row and column score of the same category to differ does not improve homogeneous row and column effects model (df=5, $G^2=9.71$, $p=.057$). The introduction of all possible symmetric effects, given marginal heterogeneity, significantly improves the homogeneous row and column effects model, though it does not describe the data well ($p=.021$). On the other hand, the internal homogeneity model assigning the three statuses based on two certifications of high school diploma and bachelor degree fits the data well. While the direct comparison of the association model and the internal homogeneity model is not possible, we can argue that the internal homogeneity models performs better than the saturated model, which is the superior model to the association models considered.

Now, we turn to the question about the extent of association between

### Table 3. Results of Conditional Association Model Applied to Four Set of Data

<table>
<thead>
<tr>
<th></th>
<th>All (8033) (A)</th>
<th>Nonkin (4131) (B)</th>
<th>Less than 5 year (4581) (C)</th>
<th>Less than 5 year nonkin (2921) (D)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$G^2$</td>
<td>$P$</td>
<td>$G^2$</td>
<td>$P$</td>
</tr>
<tr>
<td>Quasi symmetry</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Model QSI (df: 44)</td>
<td>78.79</td>
<td>.001</td>
<td>87.55</td>
<td>.000</td>
</tr>
<tr>
<td>Model QSII (df: 43)</td>
<td>76.50</td>
<td>.001</td>
<td>72.30</td>
<td>.001</td>
</tr>
<tr>
<td>Model I Vs Model 2 (df: 1)</td>
<td>2.29</td>
<td>.130</td>
<td>15.25</td>
<td>.000</td>
</tr>
<tr>
<td>$B_1$ (kor Vs United States)</td>
<td>-.013 (.009)</td>
<td>.067 (.017)**</td>
<td>.014 (.018)</td>
<td>.064 (.026)**</td>
</tr>
<tr>
<td>Quasi-independence</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Model I (df: 2)</td>
<td>.58</td>
<td>.75</td>
<td>8.60</td>
<td>.02</td>
</tr>
<tr>
<td>Model II (df: 4)</td>
<td>12.43</td>
<td>.014</td>
<td>9.74</td>
<td>.045</td>
</tr>
<tr>
<td>Model II Vs model I (df 2)</td>
<td>11.88</td>
<td>.002</td>
<td>1.14</td>
<td>.565</td>
</tr>
<tr>
<td>Uniform difference in diagonal effects (Kor vs U.S.) in model II</td>
<td>.40 (.07)**</td>
<td>.41 (.09)**</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
education of ego and alters varies between the two countries. Table 3 shows the results of the conditional quasi-symmetry model based on 7x7x2 table and quasi-independence model based on a 3x3x2 table. I will describe the results of the conditional quasi-symmetry model first. The first two columns of the upper panel essentially confirms the findings of chapter II. Although when all samples are counted (Column A), the strength of association (B1) is somewhat larger in the United States, but the difference is not significant. However, when we can estimate the relationship between ego and nonkin alters, model 2 hypothesizing that log odds ration are uniformly larger in Korea is a statistically improved model over model 1 hypothesizing the same log odds ratio in two tables (1 df, G²=15.25). The positive coefficients of B1 indicates that the extent of association is stronger in Korea.

However, it is still possible that the observed higher strength of association can be an artifact due to two facts. The generational gap in education is larger in Korea and people tend to associate with the other alters who are similar in terms of age. As the simplest way to answer this question, the third and fourth columns of panel A show the results of the same model applying ego-alter pair whose age difference is less than five years. The results shows the pattern observed in first two columns still holds for the age homogeneous sample. When we include kin relationships, Koreans and Americans exhibits virtually similar degrees of association, indicated by the small decrease in log-likelihood chi square (.49) in model 2. However, when we apply the same model to the table where only age-homogeneous nonkin are included, the model hypothesizing a uniform difference in the extent of association is better model and the direction of the coefficients is same as in the column B.

The lower panel of table 3 presents the result of applying quasi-independence model to the tables obtained by combining educational categories within the same degree certification. Model 1 of the lower panel estimates the coefficients of six diagonal cells respectively. On the other hand, model 2 assumes the frequency of the diagonal cell is the sum of the cell-specific coefficients and country-specific coefficients. Hence, model 2 requires fewer degrees of freedom. The result is highly consistent with those of the upper panel. That is, model 2 improves model 1 only when nonkin ties are analyzed. The homophily tendency of each cell is higher in Korea.

In sum, above results consistently confirm that while the association between ego and nonkin alter’s education is strong in Korea, the educational level in kinship relationship is more permeable in Korea.
SUMMARY AND DISCUSSION

The significance of education in social relationships has been widely noted. This study shows that the highest degree earned works as a significant sign of attractiveness of an individual for social interaction. The restricted latent class model reveals that there are three status groups determined by the possession of one or the other of two certifications in both countries. One of the findings of this study is that the relationship with non-kin alters among Koreans is more homogeneous in terms of empirically identified status groups. The difference of educational attainment across cohorts due to the rapid expansion of the educational system does not explain this status homogeneity. In this sense, the structure of Korean society is more closed than America’s in terms of social relationships. As noted earlier, several explanations can be advanced for explaining this pattern. The extent of political democracy associated with trust toward generalized others is one of them. The findings of Smith et al. (1998) that the inverted u-shape relationship between level of economic development and marital homogeneity, which is also highly consistent with Inglehart (1991, 1997), squares well with the more closed structure of Korean society. The cultural explanation emphasizing the role of Confucianism also highlights the importance of education in Korean society.

Alternative explanations focus on the specific historical situation of Korea. A number of factors should be considered for understanding this argument. To begin with, Korea is an ethnically homogeneous society. In addition, the feudal caste system had been virtually destroyed under the Japanese colonial rule. The land reforms after liberation from colonial rule decrease wealth inequality dramatically among peasants that comprised most of the population at that time. In this situation, education is the most visible, maybe only, signal for social status. In addition, the substantial social mobility accompanied by rapid industrialization implies that education is a more effective means to advance in market situations, which also consolidates the status value related to educational attainment. In sum, the salience of education due to the lack of other meaningful dimensions of social differentiation, cultural heritage, and the abundant opportunity of social mobility contributes to an increase in the statue value of education in Korea.

Another implication of study is regarding the effects of social capital. The results suggest that the lower status Koreas are easier to find higher status Kin, compared to corresponding Americans. Given the discussion that the strong ties such as kin are more effective when the resources channeled
through social relationship is influence (Sandefur and Laumann, 2002; Bian, 1997) and Korean society is often characterized by clientelistic society, the kinship ties can be more efficient social capital for lower status Korean than Americans.

REFERENCES


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