

Damunwha in South Korea: A Case Study of Divergences in Cognition and Behavior

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Abstract

In South Korea, over 10% of new couples involve a foreign bride. Most come from Southeast Asia (Vietnam, Philippines, Thailand, Cambodia, Indonesia), and others from East Asia (China, Japan). Such couples now produce almost 6% of births. Their children tend to do badly at school and many drop out, the commonly cited reason being the child's poor acquisition of language skills from a foreign mother. In reality, Damunwha ("multicultural children") have no trouble with spoken Korean. Their deficiency is in written Korean, particularly in literary and specialized vocabulary that is largely learned at school. They actually do well in subjects that emphasize the spoken language and social interaction, like music, painting, and physical education. They do badly only in those subjects that require abstraction and memorization, like mathematics and social studies. Damunwha children are also more prone to hyperactivity, impulsivity, and non-compliance with rules. These divergences in cognition and behavior seem confined to children of Southeast Asian mothers, since children of Chinese or Japanese mothers perform as well as those of unmixed Korean parentage. It looks as if the country's social norms, particularly those of Confucianism, favored the spread of certain cognitive and behavioral traits within the Korean population, and more broadly among East Asians. These traits include not only high cognitive ability but also a high capacity to obey rules, to defer gratification, and to control impulsive behavior.

Keywords

Academic Failure, *Damunwha*, Multicultural Children, School Dropout, South Korea

1. Introduction

We inherit not only our physical appearance from our parents but also much of our mental makeup. Among individuals of the same ethnic background, genetic inheritance explains 40% to 50% of differences in personality, vocational interests, scholastic achievement, general intelligence, spatial reasoning, and verbal reasoning (Bearden & Glahn, 2017; Kovas & Plomin, 2008; Plomin et al., 1994). But what about differences in mental makeup between ethnic groups? To what extent are these differences of genetic origin?

To date, researchers have studied the genetics of mind and behavior by examining individuals who share ancestry to different degrees while sharing similar upbringing. Such research includes twin studies, family studies, and adoption studies. The last approach provides a way to study ethnic differences in mental makeup while minimizing cultural differences in upbringing. Although cultural differences can never be completely eliminated, we can reduce them and see what happens as we get closer and closer to the limit of cultural uniformity.

A novel approach to this problem is to study the children of mail-order brides in South Korea. These children are born in that country, attend its schools, and live in a home environment that is at least half-Korean. Their genetic inheritance, however, is different from that of other Korean children. They thus provide an interesting opportunity to study the relative importance of genes and culture in child development.

It was a quarter of a century ago that South Korea opened up to mail-order brides. Most come from Southeast Asia (Vietnam, Philippines, Thailand, Cambodia, Indonesia), and others from East Asia (China, Japan). This immigration is a response to a skewed sex ratio. Men outnumber women in South Korea, as they do elsewhere in East Asia, and the male surplus is even larger in rural areas because so many women have moved to the cities for work (Lee, 2006; Park, 2011).

As a result, almost half a million "multicultural marriages" were performed in South Korea between 2000 and 2016 (Lim, 2017). In 2019, over 10% of all brides were foreign-born (Statistics Korea, 2020). This trend is especially noticeable in rural areas, where 40% of married couples are of mixed national origin (Park, 2011). Such couples produced almost 6% of all births in 2019 (Statistics Korea, 2020).

How many children have resulted from those marriages? From 2009 to 2019, there were 220,000 births to couples with at least one foreign-born parent, but this total has the drawback of excluding births before 2009. Another approach is to look at enrolment in the school system, which in 2017 had 109,387 *Damunw-ha* ("multicultural children"). However, this second total excludes individuals who were too young or too old to attend school. More importantly, it excludes many who were of school age but had dropped out of school (Jo & Jung, 2017: p. 200). All in all, the real total must be over 300,000 (see Table 1 and Table 2).

That number will increase for several reasons. First, foreign women are mostly marrying men from rural areas, where incentives for childbearing are higher. Second, they mostly come from Southeast Asia, where the total fertility rate is

Year	Multicultural marriages ¹	% of all marriages ¹	Births to multicultural marriages ¹	% of all births ¹	Multicultural children in school ²
2009	33,900	10.9	19,000	4.3	26,015
2010	35,100	10.8	20,300	4.3	31,788
2011	30,700	9.3	22,000	4.7	
2012	29,200	8.9	22,900	4.7	
2013	26,900	8.3	21,300	4.9	
2014	24,400	8.0	21,200	4.9	
2015	22,500	7.4	19,700	4.5	82,536
2016	21,700	7.7	19,400	4.8	
2017	21,900	8.3	18,400	5.2	109,387
2018	23,800	9.2	18,100	5.5	
2019	24,700	10.3	17,900	5.9	

Table 1. Multicultural children in South Korea, 2009-2019.

Notes: Multicultural marriages have at least one foreign spouse. In 2019, 69.3% had a Korean husband and a foreign wife, 17.2% a Korean wife and a foreign husband, and 13.5% involved naturalized Koreans. Sources: (1) Statistics Korea (2020); (2) Jo and Jung (2017: p. 197); Wikipedia (2021b); NYPI (2020).

Mother's country	% of families	% of births
Vietnam	30.4	38.2
China	20.3	19.9
Thailand	8.3	
Philippines		6.1

Table 2. South Korean families with foreign mothers and Korean fathers, 2019.

Source: Statistics Korea (2020). Only the top three countries are listed.

higher. In 2019, the TFR was 2.1 children per woman in Vietnam, 2.5 in the Philippines, and 0.9 in South Korea (Wikipedia, 2021a).

South Korea is thus going through demographic change. This change is interesting not only because of its rapidity but also because it is happening in a country whose history differs so much from that of North America and Western Europe. Negative outcomes cannot be blamed on a heritage of slavery or colonialism. Until the twentieth century the country was so isolated that it was called "The Hermit Kingdom". There then followed Japanese rule, American occupation, and a devastating war. South Korea became affluent only in the 1970s and a destination of immigrants only in the 1990s.

What will be the consequences of this demographic change? Will South Korea remain the same sort of country? To answer that question, we can begin by reviewing the data on *Damunwha*, particularly to see how they differ cognitively and behaviorally from other children. Such a review may help us formulate working hypotheses and point us toward further avenues of research.

2. Academic Failure and Dropping out

Damunwha tend to do badly at school, and many drop out. Kang (2010) estimates their dropout rate at 9.4% in elementary school and 17.5% at the secondary level, in contrast to less than 3% of all school-age children. The Korean Ministry of Education estimates a higher rate: 50% to 60% of school-age *Damunwha*, in contrast to less than 10% of all school-age children (Jo & Jung, 2017: p. 200; Song, 2012). A high dropout rate is suggested by the distribution of *Damunwha* across the three educational levels: 83.4% in elementary school, 12.1% in middle school, and 4.5% in high school (Jo & Jung, 2017: p. 200). It should be noted, however, that this distribution also reflects the increase over time in the number of children born to foreign mothers.

Dropping out seems to be less frequent among students with East Asian foreign mothers. According to a survey of middle and high school students, 30.2% of the foreign-mother children had a Japanese mother and 40.3% a Chinese mother (Yu & Kim, 2015). This is in sharp contrast to the ethnic breakdown of births to foreign mothers (see **Table 2**). It seems that many students with Southeast Asian mothers had dropped out by middle and high school and were thus unavailable for the survey. Study of *Damunwha* is thus difficult in later grades because those who remain in school are unrepresentative.

The high dropout rate was initially blamed on the mother's often undocumented status and the high cost of education. "However, these explanations are not satisfactory: not only has the number of undocumented migrants decreased substantially due to recent immigration reforms and amnesty campaigns, but education is compulsory through the ninth grade and provided by the Korean government at almost no cost to the families" (Jo & Jung, 2017: p. 200).

Today, it is widely accepted that *Damunwha* drop out in large numbers because of academic failure, which is commonly blamed on the child's poor acquisition of language skills from a foreign mother. "Because their mothers have difficulty in speaking and writing Korean, these children may be making slow progress in language development in comparison to the Korean children" (Kang, 2010). If this explanation is correct, such children should do worse in subjects that require linguistic proficiency, especially in the spoken language. Conversely, they should do better in subjects that require abstract skills, like mathematics, or memorization of names and dates, like social studies. This is the pattern we see in children born to East Asian parents in North America.

But this is not the pattern we see in children born to foreign mothers in South Korea: "Their favourite subjects are music/painting/physical education (42.6%), while they dislike math (38.1%), social studies (19.2%) and Korean (12.7%)" (Kang, 2010). Their learning deficit seems to be concentrated in subjects that require abstraction and memorization. They actually do well in subjects that emphasize spoken language, social interaction, and sensory experience.

Moreover, a study conducted over several months found that these children have no language problems that can be traced to deficient learning from their mothers: "This study revealed that multicultural children did not exhibit any difficulty in communicating with others in everyday Korean but that they had varying degrees of academic vocabulary mastery" (Shin, 2018). Thus, the problem is not with learning of the spoken language at home but rather with learning of the written language at school, particularly literary and specialized vocabulary. The study's author concluded: "This finding then raises the questions of why the simplified discourse about multicultural children's deficiency in Korean has been easily accepted as true in society and who benefits from the (re)production of the idea that they need special care, particularly regarding Korean language instruction" (Shin, 2018).

3. Non-Compliance with Rules

Koreans are expected to show a high level of compliance with social rules. These rules may apply to everyone, such as mandatory wearing of seatbelts, or only to students, such as the dress code, the ban on smoking, and mandatory hand washing. Compliance seems to be weaker among children of foreign mothers, as suggested by lower rates of hand washing and seatbelt wearing and higher rates of smoking (Yi & Kim, 2017).

4. Hyperactivity

Between the ages of 5 and 12 *Damunwha* children are more likely to engage in hyperactive behaviors, as rated by their teachers (Park & Nam, 2010). Between the ages of 11 and 13 they are more prone to delinquency and aggression (Lee et al., 2018). Finally, they show higher levels of hostility, fear, anxiety, and anger (Moon & An, 2011).

These findings have been challenged by a study of middle and high school students. Yu and Kim (2015) found a higher risk of violence and non-compliance with rules (on smoking, drug use, alcohol use, and sexual activity) only among children of foreign fathers. Children of foreign mothers were behaviorally similar to those of unmixed Korean parentage. The second finding is not surprising, given that over 70% of the foreign mothers were East Asian, either Chinese or Japanese. Children of Southeast Asian mothers were under-sampled because so many had dropped out.

Why was the risk of violence higher among foreign-father children than among foreign-mother children? This behavioral difference may reflect an ethnic difference in parentage: only 25.3% of the fathers in the first group were Chinese, whereas 40.3% of the mothers in the second group were Chinese. In addition, some children in the first group had been fathered by American soldiers stationed in Korea. Unfortunately, it is difficult to compare the two groups in terms of ethnic background because only the top four national origins are listed.

Could this higher risk of violence be a reaction to anti-*Damunwha* discrimination? Keep in mind that the risk was higher only in the foreign-father group, who make up a small fraction of *Damunwha*. If discrimination is a factor, it may be aimed not at children of mixed parentage in general but rather at those with visible American parentage, either Euro-American or African American.

5. Impulsivity

Damunwha have higher rates of Internet game addiction, particularly in elementary school (Choi et al., 2019). This addiction is defined as an impulse-control disorder, i.e., a tendency to act on whims without consideration for long-term goals or consequences (Starcevic & Aboujaoude, 2017). Among *Damunwha* attending elementary school, the three risk factors are in order of importance:

Gender-boys are more at risk than girls.

Foreign mother's country—children of Southeast Asian mothers are more at risk than children of East Asian mothers.

School life adjustment—children are more at risk if they have trouble coping with the structured environment of an elementary school. This risk factor has four components: relationship with teachers, relationship with peers, compliance with classes, and compliance with school rules.

The first risk factor, gender, may reflect a general tendency of men to be less risk-averse. As for the second one, i.e., foreign mother's country, the authors suggest that East Asian mothers suffer less discrimination than do Southeast Asian mothers. The latter are thus less able to control their children (Choi et al., 2019).

It may also be that Southeast Asian mothers are passing on a genetic predisposition for weaker impulse control. It has been shown that Internet game addiction is much more frequent in Southeast Asia than in all other world regions. A genetic/ethnic factor is further suggested by inter-country variation in the rate of this addiction: 44.7% in Thailand, 38.5% in Indonesia, 21.6% in Vietnam, 19.2% in Malaysia, 16.1% in Myanmar, 9.4% in Singapore, and 4.9% in the Philippines (Chia et al., 2020).

Finally, we come to the third risk factor: school life adjustment. It is almost certainly confounded with the first one, i.e., boys are more likely than girls to get into trouble at school. It may also be confounded with the second risk factor.

6. Review of Findings and Avenues for Further Research

The most robust finding is that *Damunwha* do badly at school. The reason is said to be poor acquisition of language skills in the home environment, yet the pattern of academic failure is actually the opposite of what that explanation would predict. These children have no trouble with spoken Korean. Their deficiency is in written Korean, particularly in specialized and literary vocabulary that is largely learned at school.

Damunwha also seem more prone to hyperactivity, impulsivity, and non-compliance with rules. The common cause may be weaker impulse control and a lower capacity to internalize rules.

These outcomes are viewed as deviations from the human norm. *Damunwha* children are said to develop abnormally because they learn music, painting, and physical education more readily than mathematics and social studies. In the same vein, abnormal development is indicated by their higher risk of hyperactivity, impulsivity, and non-compliance with rules. But let us suppose that they could be assessed in the home countries of their mothers. Would they still seem abnormal? In the case of Internet game addiction, they would fall within the norm if assessed as young Southeast Asians.

From a global perspective, it is really Koreans who are abnormal. Few nations in the world expect their children to devote so much time and effort to academic study. Korean children spend most of their waking hours in a regimented environment with a heavy mental workload, and nearly 60% of them continue after school with tutoring in core subjects like English and mathematics (Warner, 2011). In all aspects of learning, they are traditionally expected "to embody the inferiority of their own status, the importance of deference to elders, and the subordination of their individual ideas to those of the group" (Ahn, 2015: p. 229). It is naïve to think that such a life would appeal to all children of all origins.

Further research in this area should not be framed solely in terms of culture, i.e., the problems that children encounter in learning Korean culture, particularly the Korean language. This is not to say that culture is irrelevant, but rather that it can interact with other factors, notably by increasing the frequency of certain heritable traits within the population, through gene-culture coevolution. To put it briefly, people learn behaviors that are appropriate to their culture, but some learn better than others. Those individuals are more likely to have heritable capacities or predispositions that help them behave appropriately. As a result, they are more likely to survive and reproduce. Therefore, over succeeding generations, the culturally appropriate behaviors will become more and more hardwired. Culture acts as a template for genetic change.

Finally, further research should go beyond the dichotomy of Korean parentage versus foreign parentage. As shown by the data on dropping out and impulsivity, children of Chinese or Japanese mothers seem to behave the same as those of unmixed Korean parentage. The main cleavage is between East Asian and Southeast Asian parentage. This should be no surprise, given the similarity of social norms across East Asia due to the shared influence of Confucian teachings. The issue, therefore, is neither deviation from a human norm nor deviation from a specifically Korean norm but rather divergence between the norm of one cultural area and that of another.

7. Discussion

Humans have evolved not only with their natural environment but also with their cultural environment. The latter differs in many ways: nomadism versus sedentary living, hunting and gathering versus farming, orality versus literacy and numeracy, unwritten customs versus codified laws, authority vested in the family versus authority vested in the State, and so on. These cultural differences have caused humans to evolve in different directions, more so, in fact, than differences in the natural environment. This is especially true for recent human evolution: the rate of genetic change increased more than a hundred-fold some 10,000 years ago with the rise of farming, sedentary living, and complex societies. New cultural environments impose new cognitive demands, which are met through new ways of doing and being, which in turn are more easily mastered by some individuals than by others. There then ensues a process of natural selection: the more successful individuals are the ones who survive and reproduce. However, this selection is now made by the culture, and not by disease, cold winters, or wild predators. Culture has reshaped not only our environment but also human nature itself (Cochran & Harpending, 2009; Hawks et al., 2007; Rinaldi, 2017).

If we consider ancestral Koreans, we find that they adapted to a demanding natural environment by creating an equally demanding cultural environment. They coped with the changing seasons by storing food for the lean times of winter and early spring. They lived not only in the present but also in the future. Such forward thinking pre-adapted them for further advances in social complexity, including the development of formal instruction and eventually an educational system. The result has been a culture that places high demands not only on cognitive ability, as seen in a high mean IQ, but also on the capacity to obey rules, to defer gratification, and to control impulsive behavior (Frost, 2019; Frost, 2020; Lynn et al., 2018).

The above traits are no less real than anatomical ones like height and skin color. Nor are they less crucial for survival. These cognitive and behavioral traits have spread among Koreans, and more broadly among East Asians, to help them cope with the demands of their environment.

Conflicts of Interest

The author declares no conflicts of interest regarding the publication of this paper.

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