

“Blood-type theory” as social representations: Science or myth?*

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I. Introduction

Imagine two college students in Japan are talking gossip about the relationship between their friend X and X's professor Y. They sometimes mention X's and Y's blood-types since they commonly believe in “blood-type theory,” a kind of folk theory on the possible relationship between blood-types and personalities. For example:

“X and Prof. Y squabbled loudly in Y's seminar again. They seem not to get along with each other.” “I know the reason. X's blood-type is B, but Y's is A” “Oh, that is it. As you know, B-type persons are likely to be selfish and have little concern for others. By contrast, A-type persons emphasize social norms and customs. The theory says these two types are often incompatible. I think that's the reason.”

The above sample conversation shows the following three major characteristics of the theory: First, blood-type theory is used in Japanese society as a “lubricating oil” which helps smooth progress of everyday discourse. When two people meet for the first time, they sometimes refer to their own and partner's blood-types as one of the passable and harmless topics in daily conversation just as British people talk about weather. For example, in a university seminar freshmen often include their blood-type information as a factor for their self-introductory remarks, along with their ages, hobbies, places of birth, and the like. It should be noted here that people bring up the theory in casual settings, but rarely resort to it when they really make critical decision, when they decide whom they marry, or

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whom they recruit for the workforce, for example.

Secondly, blood-typing normally functions as a convenient and useful lay theory providing practical and helpful explanations or interpretations for various everyday social and personal matters. For example, the theory could give a tentative and quick answer to the following questions. Why am I too shy to make friends easily? Why did Mr. X have a fight against his boss again? Why is Ms. Y always strict about dress code at her workplace? People need quick answers for these questions to know what goes around them and to know what should be done about it. Blood-type theory, although its scientific validity and reliability has not been confirmed yet, is often adopted as a significant tool in daily thinking to make sense of everyday social life.

Thirdly, it is clear that blood-type theory is widely accepted in Japanese society. Otherwise, it would not be a common device in everyday conversation as shown in the example above, where the two participants seem to share a wide range of common knowledge about the theory. As we show below, blood-type theory became common in 1970's and is still quite popular. Now, a considerable number of people, especially among younger generation, know much about blood-type theory, and enjoy applying it to interpret what goes around them. But, what has to be noticed here is that blood-type theory does not necessarily provide logically consistent scientific knowledge but practically useful framework to talk about personalities or human relations in informal settings. In other words, people just know practical and popular method for understanding human characters or human relations in terms of the theory in everyday conversation. They know neither all the complicated details of the theory nor the long-term physio-psychological controversy over its validity within the academic world.

This paper shows, from the perspective of social representation theory (Moscovici, 1984; Yamori, 2000), how and why the theory, originated in psychological works by a Japanese educational psychologist in the 1920's and limited within specialists, was publicized and integrated into daily knowledge since the 1970's. First, we summarize some of the main assertions of the theory. Second, we outline the history of the theory and indicate how widely it is accepted by Japanese people. Finally, the social psychological process, through which the theory has been widely accepted, is discussed from the standpoint of social representation theory.

II. Main assertions of blood-type theory

We need not go into minor details of blood-type theory. This is partly because it would require another paper to list up every detail of the theory, and because our purpose here is

not to examine its reliability or validity, but to discuss the social psychological process through which the theory has been integrated into everyday thinking to form an influential folk theory regardless of its reliability. Furthermore, as is often the case with folk theories, blood-typing is not necessarily constituted of clear propositions but of ambiguous statements, and sometimes differs considerably depending on books and writers. It is even ever-changing as people use it over time.

The main characteristics of blood-type theory are summarized by Nomi (1971) as follows. Blood-types of human beings basically can be classified into the following four types based on the characteristics of red blood cells: A, B, O, and AB types. It is estimated that the distribution of Japanese people to each type is 40% for A, 30% for O, 20% for B, and 10% for AB type. The distribution has been found to be different across cultures. Moreover, basic personalities systematically differ among blood types. A-type persons are normally considerate about everything, prefer peaceful human relations, slow to trust, nervous, observe social rules and customs, regard social order as important, and refrain from action and expression. B-type persons are basically egoistic, selfish, dislike restrictions, go ones' own way, and like non-stereotyped action and thinking. They are also self-conscious and don't care of social rules and customs. O-type persons are likely to be big-hearted, intensive, strongly purpose-oriented, and conscious of power relationship. They know how to take chances, and dislike to be subordinate. AB-type persons are usually two-sided, good critic and analyst, think rationally, and feel distant from society.

In addition, affinity or compatibility between two persons with the same or different blood-types, and vocational aptitude of each of blood-type persons have often been dealt with in the theory. To take a few examples, B-type persons are generally poor at getting along with others in a group, especially, with A-type persons, since the former seeks their own way while the latter do not like destroying group harmony. Most of well-performed leaders in various fields, e.g., in a business, political, or educational world, are O-type persons since they are superior to other type persons in terms of behaving actively and taking strong initiative in a group. AB-type persons are more suitable for professional jobs that needs creative thinking or a spark of genius, but do not show much aptitude for the jobs that require steady and constant effort.

III. History

Blood-type theory can be traced back to the paper, "Blood-types and temperament (in Japanese)," written by Dr. Takeji Furukawa, which appeared in "Japanese Journal of Psychology" in 1927. He graduated from Tokyo University (education) and became a

teacher in a senior high school. He conducted some case studies with about 350 subjects and proposed that blood-types and basic personalities relate with each other, arguing that B- and O-type persons are more active, and A- and AB-type persons are more passive.

The impact of the study was not minor both in positive and negative senses. On one hand, Furukawa's work was highly evaluated and published not only in some of Japanese academic journals but also in the U.S. (*Journal of Social Psychology*, 1, 494-509, 1930), and in Germany (*Zeitschrift fur Angewandte Psychologie*, 31, 271-299, 1928). It also led to a large number of follow-up studies in Japan, using a wide variety of samples. Some people further attempted to apply it to a few practical fields, e.g., school education and armed forces. However, on the other hand, his theory was not necessarily confirmed empirically by some of the follow-up studies. A considerable number of physicians and psychologists criticized it. The theory was gradually regarded as a fake or a misleading one having no sufficient scientific grounds. Finally, Furukawa's theory of blood-typing had been discarded for as long as 45 years after its flourishing period in 1930's.

After a long interval of the 45 years, blood-type theory suddenly reemerged with a famous best and long seller book, titled, "How can you know your personality compatibility by your blood-type?" The book was written by Masahiko Nomi in 1971. What is important is that the revival of the theory was seemingly realized not by elaborating further the theory itself but by just playing it down to the popular taste. In other words, Nomi (1971) did not reexamine the theory with scientific strictness but just added modern and catchy tastes to it. Specifically, he and his successors applied the theory to a field of fortune-telling or divination. Blood-type theory, revived by Nomi, provided people with a compact knowledge about human characters or personalities, and affinity divination of human relationships, male-female relationships, for example. While Furukawa's original interest was focused on possible relations between blood-types and ethnic or profession groups, the brand-new version of blood-type theory shifted to individual differences or everyday human relationships.

Sato and Watanabe (1996) provide us with a helpful overview on the recent development of the theory as a commonly held belief system. They divided the recent twenty-five years from 1971 to 1996 into the following four phases in terms of how the theory is considered by people. In the first phase, i.e., from 1971 to 1980, the new version of blood-type theory appeared and spread across the country. An instigator was Nomi's book. He established a voluntary association, called "ABO fan club," in 1979 in order to invite people to learn about the theory and spread it quickly. A lot of related books and magazines were published although most of them were not for professional readers, but for general readers, e.g., weekly magazines, tabloid papers, one of the paperback series for teenagers.

In the second phase, i.e., from 1981 to 1984, on one hand, the fad for the theory caught on and swept the whole country. For example, the theory was much more popularized and commercialized. Many goods and services, such as fortune-telling by blood-types, T-shirts, candies, and even condoms, were sold jumping on the bandwagon. Blood-type T-shirts, for example, have four designs, each of which was said to be the best fit for each of blood-type persons. However, on the other hand, the fad was gradually going downhill. Some TV stations began a campaign against the careless and imprudent use, and misuse of the theory. As a result of this misuse, some people were rejected out of the group or bullied in schools based on their blood-type.

The third phase, i.e., from 1985 to 1989, was an "incubation" period for the theory according to Sato & Watanabe (1996). A considerable number of critics expressed, based on empirical data, against the theory in magazines and TV programs. People lost interests in the theory; the boom was cooling down during the period, but faith in the theory did not die out completely.

In the fourth phase, which ranges from 1990 to 1996, the theory came to life again with what was called "the boom in popular psychology (or popular sciences, in general)." The second craze during this period was characterized by the controversy between popular psychologists or popular science writers and orthodox psychologists, physicians, or biologists. The former published a large number of popular and introductory psychology books, converting tactfully scientific findings into popular knowledge, fit in everyday thinking. They, moreover, aimed at making scientific knowledge intelligible and accessible to common people. Blood-type theory was also re-introduced following a related 'seemingly' psychological knowledge or a background. The latter, on the contrary, continued to provide scientific data to deny; or at least, to discredit the theory within orthodox academic work, arguing that personality cannot be easily typecasted or categorized merely based on the person's blood-type. Logical and empirical leap in the former's work was also severely criticized by the latter.

IV. How popular is blood type theory in Japan?

In the following section we would like to provide some quantitative data demonstrating that blood-type theory in Japan is quite widespread and prevalent. First, a considerable number of books about the theory have been published, and some of them even became best-selling books. To take an example, Nomi's first book, as mentioned above, has been edited 25 times; and the author published also 15 other books about blood typing before his death in 1981. His son Toshitaka Nomi succeeded his father's work and published four

books just in 1996. Figure 1 indicates the fluctuations in the number of newly-published books and magazine articles including the term, "blood type," in their titles (Mizoguchi, 1994). Figure 1 reflects clearly the four phases discussed above. Furthermore, it is noteworthy that not only Japanese mass media but also U.S. media covered the topic. For example, "News Week (April, 1, 1985)," and "Washington Post (Dec. 29, 1995)" have critically reported on the great enthusiasm for the theory in Japan, titled, "typecasting by blood."

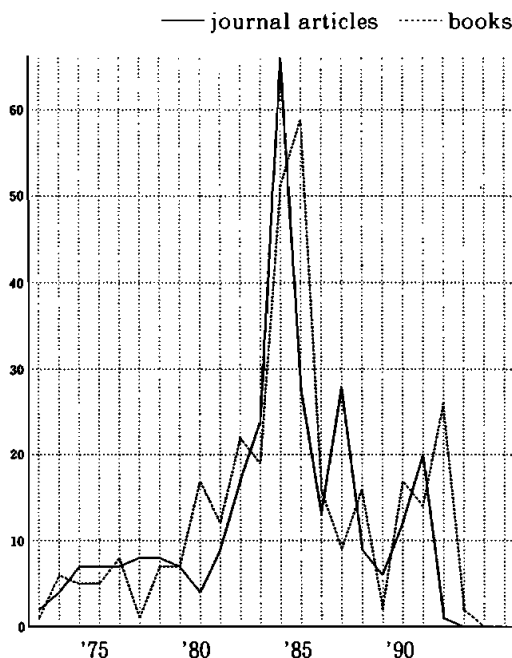


Figure 1 Media coverage of blood-type theory (Mizoguchi, 1994)

Secondly, a great amount of research has confirmed the fact that a considerable number of Japanese people, especially in younger generations, are interested in the theory, and strongly believe in its basic tenets, i.e., the linkage between personalities and blood types. Sato & Watanabe (1992), for example, reviewed more than 10 related survey data, reporting that approximately 60% of 1185 respondents answered that they are interested in the blood-type theory. Takuma & Matsui (1985) showed that about 40% of male and 60% of female college students believe that personalities systematically differs depending on the blood types. Further, more than 80% of female college students replied that they enjoy referring to the theory in daily life (Kamise & Matsui, 1991). The author conducted a supplemental questionnaire survey in 2000 showing that more than 60% female and more than 50% university students believed in blood-type theory.

Finally, the increasing number of anti-blood typing studies in physio-psychology and

social psychology ironically demonstrates the amazing popularity of the theory since these attempts were not made outside of the fad but composed a significant internal part of it. The first attack on the theory appeared as early as in 1973. It was in a magazine article titled, "Is personality really determined by blood types?" appeared in a science magazine, "Kagaku Asahi." After that, many physio-psychologists and social psychologists attempted to show the deficiency and pitfall of the theory in some technical journals. Sato & Watanabe (1992) listed as many as 80 related scientific papers, which were published from 1985 to 1992, to argue the theory in their comprehensive review paper. This number alone is sufficient to show the fact that blood-type theory was an absorbing and controversial topic in Japanese academic world of psychology around the year of 1990. Some studies continued to investigate the main assertion of the theory directly (e.g., Ohmura, 1990), some pointed out at methodological problems of popular psychological thinking (e.g., Matsui, 1994), and others, such as Sakamoto (1995), focused on cognitive bias through which people were induced to trust the theory without careful inspection of the theory and without an understanding of its scientific bases.

V. Blood-type theory as social representations

It is clear from what I have discussed above that blood-type theory is a new pseudo-scientific folk theory which gained much popularity especially in the 80-90's in Japan, and that the theory has provided for the public a new way of understanding personality differences and human relations. Thus, the most important question to be raised here is why the theory was needed during this period in Japan. In other words, why did people introduce and integrate this new and seemingly scientific theory in their everyday thinking?

Moscovici (1984) proposed that a new social representation is generated and elaborated when a society encounters the unfamiliar, which cannot be understood by pre-existing representation. The new social representation serves to domesticate the unfamiliar, and to make it intelligible. This proposition by Moscovici suggests that Japanese people during the 80-90's might have faced something unfamiliar or uncommon in private and social life that could not be dealt with then prevailing ways of understanding of personality differences or human relations. Otherwise, people could get along with others as in the past just relying on the pre-existing and more familiar knowledge. What is this something novel and unfamiliar that happened in Japanese society during the 80-90's?

Since the early 60's, Japanese society has changed rapidly in various aspects through the recovery processes after the World War II. The rapid economic growth led to overpopulation in urban area and rural depopulation to meet an immense demand for labor

force. This phenomenon destroyed Japanese traditional human network which was based on large or extended family and closed local community where people were closely interwoven forming a relatively small human network. In this kind of local communities, people were quite well known to each other. There was little need to explore stranger's personalities and to reach mutual understanding, since they were already "familiar" to each other. Moreover, people had relatively a little chance to meet "unfamiliar" and unknown strangers.

The rapid economic growth during the 60's and the early 70's dramatically changed the situation. Old-fashioned local communities were replaced by a modern society composed of a number of nuclear families and single households, especially in urban areas. This movement rapidly freed people from previous yoke of traditional human networks sustained by patriarchy family or feudal regional community. However, to look at the phenomenon differently, this freedom required people to build up a brand-new human network on their own instead of simply succeeding and relying upon conventional one. Since this new society was composed of many "unfamiliar" and isolated individuals, people were likely to encounter strangers continually, and were forced to create a new relationship with them from the first meeting, if they intended to have contact with them. This could happen in various settings, from an easygoing situation to a more serious one, e.g., when making friends in school, looking for a boy or girl friend, or a reliable business partner in a workplace.

In my view, this situation produced a strong drive for people to look for a new folk knowledge, i.e., a new social representation, with which they could evaluate and understand the "unfamiliar" others. Blood-type theory provided people, especially, those in younger generations, with a trustworthy and compact "manual" to enter into the "unfamiliar" others.

This interpretation is supported by the fact that not only blood-typing but also not a few other tools and techniques which served the same purpose got much popularity among young people during the same decade. For example, fortune-telling or affinity-telling methods in terms of reading one's palm, horoscope, onomancy, etc., simultaneously became also a popular fad during the 80-90's. These predictive techniques or methods share several characteristics. First, all of them assume several (from four at minimum to 12 at maximum) categories to classify human personalities or to evaluate the affinity between each pair of these categories. Second, they are apparently "fortune-telling" methods to predict the "future", and most of them are, at the same time, used practically to understand the unfamiliar others at the "present," and to justify or rationalize what had been done in the "past," e.g., the fight one had with others or negligence to a particular

person. Thus, it can be concluded that almost all of these methods have functioned effectively as a folk knowledge system, i.e., a social representation, with which people make everyday life meaningful and intelligible.

Some nationwide opinion surveys show that faith in religious and spiritual matters among younger people increased or decreased in concert with the growing or diminishing interest in blood-typing. For example, NHK Broadcasting Culture Research Institute (2000) clearly shows that people's faiths in a miracle (Figure 2) and those in divination or fortune-telling methods (Figure 3) are stronger in younger generation than in older ones, and, more importantly, that two peaks in the faiths, appeared in 1983 and in 1998, accurately correspond to the rises in people's interest in blood-typing during the period of 1981-84 and of 1990-96 mentioned in the preceding section.

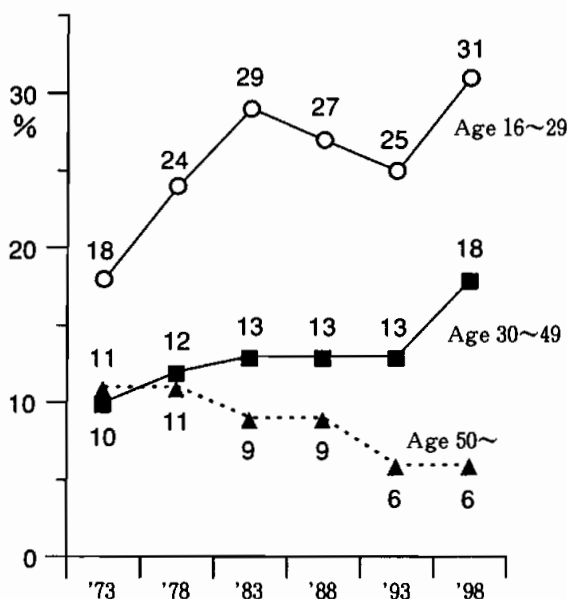


Figure 2 Percentages of people who believe in a miracle (NHK Broadcasting Culture Research Institute, 2000)

Finally, I would discuss the reason why blood-typing have been more widely accepted compared with the other methods mentioned above. I would point out two factors from the viewpoint of social representation theory.

First, scientific and academic background for blood-typing should be highlighted. It is true that a considerable number of professional psychologists deny or doubt its validity and even point out a risk of over-trusting it, but, from our point of view, what is critical is not whether blood-type theory is scientifically true or false, but whether it is accepted as science-relevant or not. Blood-typing can be clearly distinguished from other folk theories such as palm-reading, onomancy, in the sense that it was introduced as a "scientific"

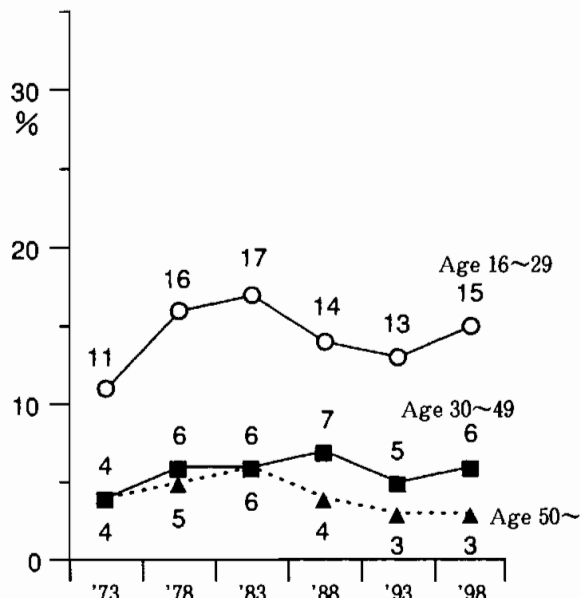


Figure 3 Percentages of people who believe in a divination and fortune-telling methods (NHK Broadcasting Culture Research Institute, 2000)

knowledge proposed by a psychologist (Dr. Furukawa). This characteristic of blood-typing appealed greatly to people's absolute and enduring faith in universal knowledge produced by scientific activities. This faith was gradually generated by big advances in science and technology, which has resulted in a rapid economic growth in Japan characterized by great socio-economic benefits.

Furthermore, a hot and controversial dialogue between pros and cons of the theory, involving not only professional and popular psychologists but also the general public and mass media, did not reduce but rather enhanced its popularity. For as put by Wagner & Kronberger (in press), collective discourse is a powerful engine that drives everyday social thinking. Social representation in the form of local and folk knowledge is produced and maintained neither by logical consistency nor by empirical evidences, but by the force of the agreement implied by the people's cultural assumptions during the period that science is trustworthy and helpful.

Second, it played an integral part in the emergence and wide acceptance of blood-type theory, especially, in its objectification process (Moscovici, 1984), that Japanese people have attached a special meaning to blood as a material for a long time. As put by Wagner & Kronberger (1999), the specific social conditions of a certain group favor specific kinds of tropes and materials to be used for objectification by which an unfamiliar idea is represented and made intelligible. The trope does not need to be correct or accurate in the sense of scientific truth. It just needs to be "good to think." A trope is good to think if it's

meaning is well embedded in the group's local world of experience.

Blood has been a symbol widely and traditionally accepted in Japan: it represents both human character of individual persons and solidarity or integrity of kinship family. Blood has been commonly believed to be an actual entity symbolizing basic human nature. We have a number of common phrases showing the belief that blood determines human characters, such as, "hot-blooded person" meaning short tempered person, "blood dances" meaning exciting, or "person without blood and tears" meaning merciless person, etc., and the belief that blood is a vehicle for inheritance of these characteristics from generation to generation, such as, blood is thicker than water," "blood will tell."

Therefore, it seems reasonable to conclude that these beliefs underlie the public understanding of the blood-type theory although they are not overtly reflected in the theory. It is just "good to think" for people that blood-type can classify human personalities since Japanese share a strong cultural assumption that blood is a key material to determine the basic human character and regulate human relations. In other words, blood-type theory compared with other methods is outstandingly advantageous to maintain the integrity of traditional semantic metrics (Wagner & Yamori, 1999) in the sense that it is fully compatible with common sensual thinking. What counts for blood type theory to be widely accepted, from the viewpoint of social representations theory, is not its scientific accuracy or validity but its strong connection with the prevailing image of blood in everyday thinking.

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