

# 7 Diversity of Patterns of Type Distribution Among Cultures: What Do the Differences Mean?

Eduardo Casas  
*School of Psychology*  
*University of Ottawa*  
*Ottawa, Ontario, Canada*

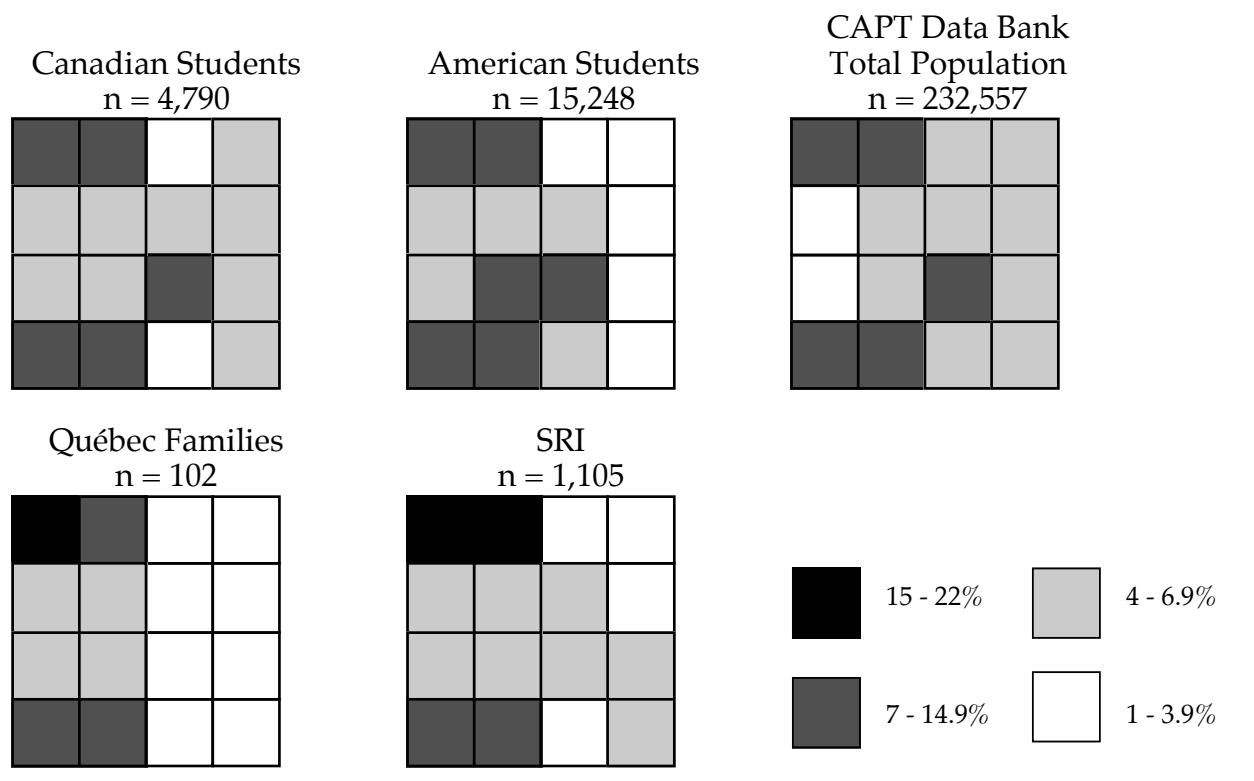
When we use a valid, standardized translation of the MBTI with controlled samples in different cultural groups, we obtain a diversity of type distributions. The objective of this paper is to present an analysis of type tables of small and large samples of several Eastern and Western cultures in order to show statistically significant patterns of type distribution in each cultural sample. The main question asked will be: To what extent do the differences found express the collective values and attitudes of each culture? Although we need to validate the Jungian interpretation of these results with observations and data from other disciplines, some tentative hypotheses may be formulated: (1) Under certain conditions, MBTI data derived from relatively large controlled samples of a homogenous cultural group would yield a characteristic result that may be attributed to a cultural factor. (2) This characteristic may be considered a predominant psychocultural feature that has been maintained through the social institutions of that culture, especially through education. (3) This group characteristic colours individual behavior and, in many cases, it may be the most noticeable feature in interpersonal communications to the point of overriding individual expression. (4) Awareness of this psychological characteristic of a cultural group may lead to negative stereotyping or to a constructive and enriching exchange.

The distribution of frequencies of the 16 types on a 4 x 4 table has been the preferred way to present the results of the administration of the MBTI when dealing with small as well as with large groups of subjects. This presentation has allowed for a statistical elaboration more in keeping with the nature of the data yielded by the Indicator, which is not based on the assumption of a normal curve distribution. It has also facilitated the grouping of types to test hypotheses using inferential statistics.

One of the methods frequently used in establishing the construct validity of the Indicator is the agreement of the MBTI results of a well defined group of people with what is theoretically expected of their typological preferences. For example, type theory assumes that people who prefer sensing and thinking focus their attention on realities and handle these with objective analysis, tending to become practical and analytical, developing technical skills with objects and facts. When a significant number of people in occupations such as administration, banking, construction, show their preference for one of the four ST types, over the other three (SF, NF, NT), we conclude that these results support our theoretical assumption (Myers, 1987). The ST pattern therefore seems to characterize a certain group of people attracted to certain occupations that require the skills based on those two preferences.

Looking for statistically significant patterns of type distribution associated with well defined groups in the U.S., Myers and Myers (1980), Myers and McCaulley (1985), Macdaid, McCaulley, and Kainz (1986) have presented type tables showing

Figure 7.1  
Schematic Presentation of Frequency Distribution of Five Normative Samples



configurations clearly related to variables such as gender, occupations, career selection, age, educational level, and interests. When we study large samples of thousands of persons, of a not well defined population such as the CAPT data bank on American or Canadian college students, a predominance of the four SJ types (realistic decision makers) stands out. The same results are obtained when we try to approximate a stratified random sample of the general population of a cultural group like the SRI study, or the Quebec families study. Figure 7.1 illustrates these features.

You may appreciate that the data from Canada parallels the American data in this feature among the students as well as among the general population. You will also notice that the concentration of SJ's is larger when all age groups and occupations are put together like in the SRI and the Quebec samples. This trend is also noticeable with data obtained outside North America in English or in translated versions in different languages.

Table 7.1  
Samples from Different Cultures (High School)

| Country       | Sample                | Researcher    | Date    | Form          | Gender | n       | E  | I  | S  | N | T  | F  | J  | P           |  |  |  |  |
|---------------|-----------------------|---------------|---------|---------------|--------|---------|----|----|----|---|----|----|----|-------------|--|--|--|--|
|               |                       |               |         |               |        |         |    |    |    |   |    |    |    | Percentages |  |  |  |  |
| U.S.          | Grades 11-12          | Myers         | 1957    | D2            | M      | 4,933   | 62 |    | 66 |   | 61 |    | 53 |             |  |  |  |  |
|               |                       |               |         |               |        | 4,387   | 68 |    | 71 |   | 68 |    | 58 |             |  |  |  |  |
| U.S.          | Grades 10-12          | CAPT Databank | 1978-82 | F             | M      | 152     | 56 |    | 60 |   | 66 |    | 69 |             |  |  |  |  |
|               |                       |               |         |               | F      | 203     | 66 |    | 59 |   | 69 |    | 59 |             |  |  |  |  |
| Australia     | Grades 10-12          | J. Denham     | 1980    | G             | M      | 1,759   | 64 |    | 69 |   | 70 |    | 54 |             |  |  |  |  |
|               |                       |               |         |               | F      | 1,614   | 74 |    | 61 |   | 61 |    | 55 |             |  |  |  |  |
| France        | Classes Terminales    | Casas Huteau  | 1987    | G (MBTI-fr.)  | M      | 235     |    | 63 | 55 |   | 80 |    | 65 |             |  |  |  |  |
|               |                       |               |         |               | F      | 437     |    | 69 | 58 |   | 65 |    | 68 |             |  |  |  |  |
| French Canada | Grad 13               | Casas-Coggins | 1985    | G (MBTI-fr.)  | M      | 130     |    | 53 | 60 |   | 82 |    | 54 |             |  |  |  |  |
|               |                       |               |         |               | F      | 147     |    | 56 | 55 |   | 60 |    | 61 |             |  |  |  |  |
| Korea         | H.S. Stud.            | Hae-Sook Sim  | 1989    | G (MBTI-Kor.) | M+F    | 232     | 54 |    | 68 |   | 54 |    | 55 |             |  |  |  |  |
| Japan         | Employees of H.S. age | Ohsawa        | 1989    | TI*           | M      | 15,000† |    | 63 | 61 |   |    | 70 | 71 |             |  |  |  |  |
|               |                       |               |         |               | F      | 10,000† | 52 |    | 64 |   | 74 |    | 52 |             |  |  |  |  |

\* Japanese version of the MBTI

† Estimate

© Eduardo Casas 1989

Table 7.2  
Samples from Different Cultures (College)

| Country       | Sample                           | Researcher         | Date    | Form              | Gender | n       | Percentages |    |    |    |   |   |   |   |  |  |  |  |
|---------------|----------------------------------|--------------------|---------|-------------------|--------|---------|-------------|----|----|----|---|---|---|---|--|--|--|--|
|               |                                  |                    |         |                   |        |         | E           | I  | S  | N  | T | F | J | P |  |  |  |  |
| U.S.          | Traditional College Age Students | CAPT Databank      | 1978-82 | F                 | M      | 5,632   | 52          | 58 | 56 | 51 |   |   |   |   |  |  |  |  |
|               |                                  |                    |         |                   | F      | 9,616   | 57          | 64 | 68 | 55 |   |   |   |   |  |  |  |  |
| Canada        | St-Clair Community College       | Desbiens           | 1977    | F                 | M&F    | 1,973   | 54          | 68 | 62 | 55 |   |   |   |   |  |  |  |  |
| Japan         | College Age Employees            | Ohsawa             | 1989    | TI*               | M      | 20,000† | 59          | 51 | 53 | 63 |   |   |   |   |  |  |  |  |
|               |                                  |                    |         |                   | F      | 15,000† | 58          | 64 | 60 | 53 |   |   |   |   |  |  |  |  |
| Korea         | College Students                 | Hae-Sook Sim       | 1989    | G (MBTI-Korea)    | M&F    | 141     | 56          | 70 | 53 | 55 |   |   |   |   |  |  |  |  |
| French Canada | 1st year College                 | Casas - Prud'homme | 1985    | G (MBTI-fr)       | M      | 218     | 65          | 63 | 75 | 59 |   |   |   |   |  |  |  |  |
|               |                                  |                    |         |                   | F      | 292     | 60          | 59 | 54 | 66 |   |   |   |   |  |  |  |  |
| Eng. Canada   | 1st year College                 | Casas-Prud'homme   | 1985    | G                 | M      | 187     | 58          | 53 | 74 | 55 |   |   |   |   |  |  |  |  |
|               |                                  |                    |         |                   | F      | 239     | 54          | 51 | 61 | 58 |   |   |   |   |  |  |  |  |
| Rep. of China | College Students                 | Hwang              | 1989    | G (MBTI-Mandarin) | M      | 427     | 62          | 95 | 74 | 81 |   |   |   |   |  |  |  |  |
|               |                                  |                    |         |                   | F      | 632     | 65          | 62 | 53 | 78 |   |   |   |   |  |  |  |  |

\*Japanese version of the MBTI

†Estimate

© Eduardo Casas 1989

Table 7.3  
Samples from Different Cultures (Random)

| Country          | Sample                | Researcher                         | Date    | Form           | Gender | n       | Percentages |    |    |   |    |    |    |    |  |  |  |  |
|------------------|-----------------------|------------------------------------|---------|----------------|--------|---------|-------------|----|----|---|----|----|----|----|--|--|--|--|
|                  |                       |                                    |         |                |        |         | E           | I  | S  | N | T  | F  | J  | P  |  |  |  |  |
| U.S.             | All males             | CAPT Databank                      | 1978-82 | G              | M      | 15,791  |             | 51 | 56 |   |    | 70 |    | 58 |  |  |  |  |
|                  | All females           |                                    |         |                | F      | 16,880  | 54          |    | 56 |   |    | 58 | 61 |    |  |  |  |  |
| U.S.             | Farmers               | Horner and Barrett, U. of Nebraska | 1987    | G              | M      | 526     |             | 57 | 75 |   |    | 78 |    | 66 |  |  |  |  |
|                  |                       |                                    |         |                | F      | 500     | 52          | 70 |    |   | 61 | 72 |    |    |  |  |  |  |
| U.S.             | General Population    | SRI VALS                           | 1983    | G              | M      | 446     |             | 64 | 73 |   |    | 75 |    | 70 |  |  |  |  |
|                  |                       |                                    |         |                | F      | 659     | 57          | 78 |    |   | 66 | 66 |    |    |  |  |  |  |
| Canada (Québec)  | 20 families           | Casas - Beaulne                    | 1984    | G (MBTI-FR)    | M      | 50      |             | 66 | 88 |   |    | 76 |    | 70 |  |  |  |  |
|                  |                       |                                    |         |                | F      | 53      |             | 55 | 79 |   |    | 58 | 68 |    |  |  |  |  |
| Japan            | Workers in their 30's | Ohsawa                             | 1989    | TI*            | M      | 20,000† |             | 54 | 58 |   |    | 63 |    | 51 |  |  |  |  |
|                  |                       |                                    |         |                | F      | 15,000† | 60          |    | 60 |   |    | 56 | 55 |    |  |  |  |  |
| Korean-Americans | Professional Adults   | Hae-Sook Sim                       | 1989    | G (MBTI-Korea) | M      | 97      |             | 61 | 70 |   |    | 83 |    | 77 |  |  |  |  |
|                  |                       |                                    |         |                | F      | 104     |             | 71 | 88 |   |    | 64 | 90 |    |  |  |  |  |

\*Japanese version of the MBTI

†Estimate

© Eduardo Casas 1989

Tables 7.1, 7.2, and 7.3 show a definite trend towards S in all age groups in all of the cultures sampled, as well as a strong tendency towards J in older persons. We should keep this observation in mind in our interpretation of large samples. We can also appreciate certain differences. These differences, if they are found to be statistically significant, allow us to consider the hypothesis of a cultural factor influencing the responses to the Indicator, beyond the universal SJ trend shown.

In order to test that hypothesis in some Western cultures, the author carried out a study in English Canada, French Canada, and France using a standardized French version of the MBTI (Casas, 1990). The procedure for validating the French version has been reported elsewhere (Casas, 1990; Casas, 1991). The three essential criteria to test the hypothesis of cultural factors influencing type distribution were: first, the use of the Indicator in the mother tongue of the subjects; second, the reconstruction of the translated Indicator following the same psychometric procedures used by the original author; and third, the use of controlled and comparable samples in each cultural group tested.

A sample of between 700 to 1,800 college age students (17 to 25) in each culture was used containing the same proportion of male and female, as well as a balanced number of humanities and science students. A different scoring system for each cultural group was derived through item analysis. Using the sample of American traditional college age students from the Manual (Myers & McCaulley, 1985) as the comparison base, the SRTT program (Selection Ratio Type Table) was applied to the type distribution in each cultural group. A schematic presentation of the distribution of frequencies by gender for each group appears in Figure 7.2.

A visual inspection of these shaded areas representing variations of frequency reveals: (1) a heavy load in the T columns for males and in the F columns for the females in general; (2) for males, a similar emphasis in ST in all groups but a more diverse distribution of the F columns in the females; (3) a diverse pattern of differentiation between males and females in each cultural group.

The SRTT analysis yields a more specific and accurate result. The differences reported here are at the .001 level of significance:

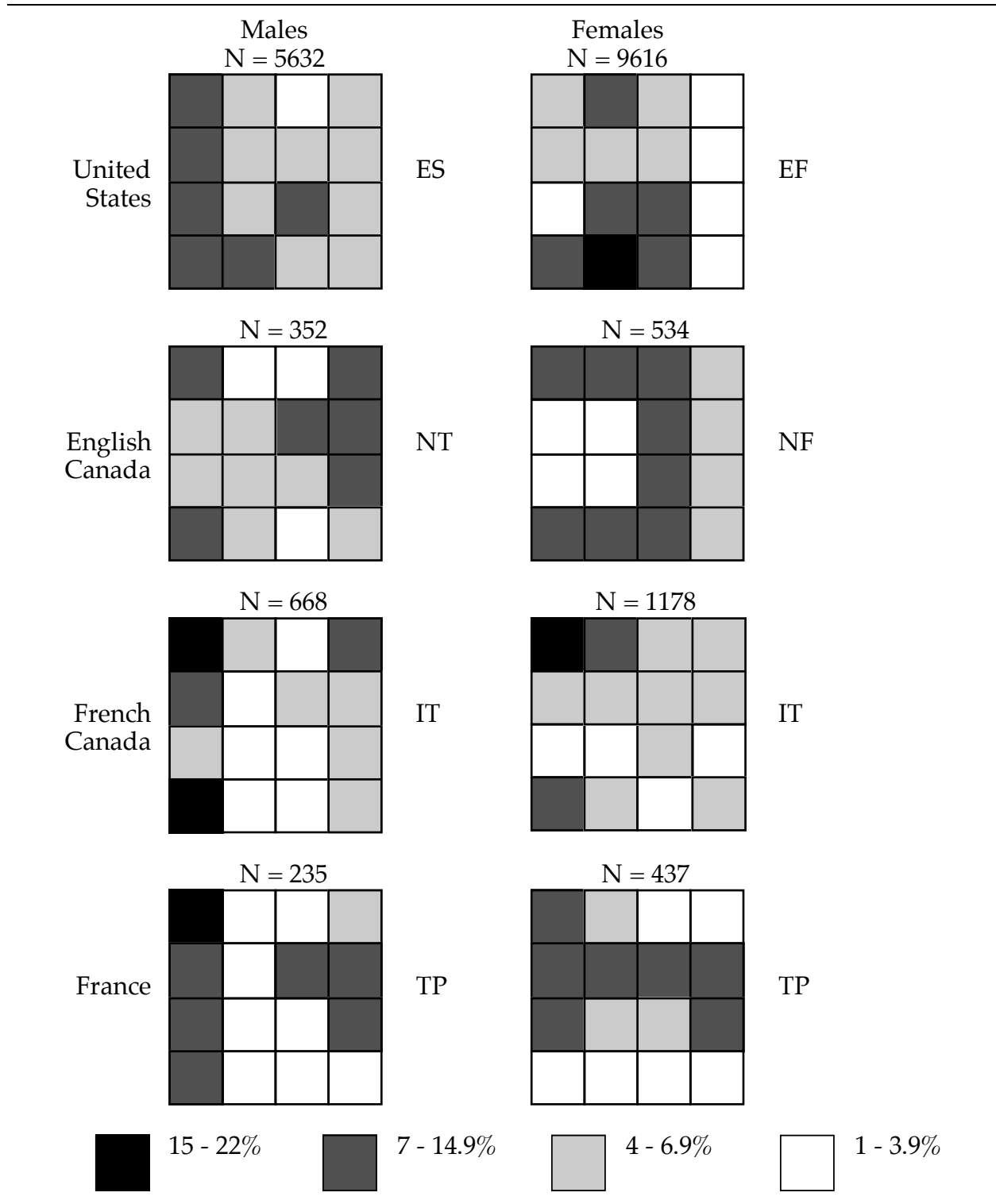
Males:

1. U.S. males reported more S and more E than the other groups. The two-letter combination ES seems to describe them.
2. The English Canadian males prefer NT significantly in contrast to the others.
3. The French Canadian males come out as IT, their ISTJ is the highest of all the groups (21.42%).
4. French males show a very clear pattern of preference for TP.

Females:

1. Extraversion and feeling, EF stands out in American female students.
2. NF characterizes English Canadian females in sharp contrast to French Canadian females.
3. French Canadian females are more IT than the other female groups.
4. French females contrast sharply with U.S. and English Canadian females; their significant pattern is TP.

Figure 7.2  
Schematic Presentation of Frequency Distributions of Types in Four Cultures



*Gender comparisons.* Contrasts are heavier among women than among men. One observes, however, a certain complementarity of the Anglophone patterns (U.S. and E. Canada) of males and females (ES-EF) (NT-NF) and a similarity of patterns of male and female Francophones (IT; TP).

*The meaning of the differences.* We expected to find differences of patterns across cultures. To what extent however are the statistically significant differences the effect of a cultural variable and if they are, to what extent do they suggest some aspect of the culture?

It has been recognized that among the factors that may bear a negative influence the reporting of the true type are family, social, and cultural pressures. If we assume that the other factors like immaturity, camouflage, and testing situation are randomly distributed, we may hypothesize that the differences are associated with cultural values transmitted through the institutions of that culture, especially education.

Validating this hypothesis requires a description of the specific and distinctive cultural characteristics of each group. Attempts have been made in the past to do so but not with very effective results. It seems that cultures are better described from outside although with considerable risks of stereotyping, either positive or negative. At this point, I find it therefore very difficult to establish an objective external criterion of validation for this hypothesis.

Nevertheless we can seek connections or associations between the MBTI data and the cultures studied by referring to the theoretical definitions of the patterns discovered (Myers & McCaulley, 1985).

It may be assumed that the characteristic patterns of type distribution in each cultural sample presented here are the expression of socially desirable preferences or what Jung calls social or collective attitudes. For him, these attitudes are "those on which a collective idea has set its stamp. They are characterized by various 'isms'. These collective attitudes are very important, in some cases even outweighing the importance of the individual attitude" (CW. 6, par. 691).

We will attempt here to associate the theoretical definition of MBTI two-letter combinations with the main ideas or values that have put their stamp in each of these cultures. (See Table 7.1)

The predominance of ES would be the expression of pragmatic values deriving from the stamp or mark left by the philosophy of Pragmatism in U.S. education. The predominance of NT in English Canada may be associated with empirical values derived from British Empiricism which emphasizes task oriented approaches to problems in a context of social discipline and constructive criticism. The TP predominance in France points directly to Rationalism with its methodical doubt, and its preference for logical categories and distinctions. The preference for IT in French Canada may be a manifestation of a modified Rationalism in which a more cautious and inward looking approach is expressed.

This method of systematic comparative research among cultures has not been used to my knowledge in Eastern countries. We have some data however that may allow us to speculate. Unfortunately, I could not obtain the data broken down by gender in all cultures. Hopefully, this Symposium will facilitate the type of communication that will make possible a better exchange in the future.



Table 7.1  
Comparison of Type Descriptions and Cultural Values

|                | <b>Males</b>                                                                                                                                                                                                | <b>Females</b>                                                                                                                                                                                              |
|----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| United States  | ES<br><i>Action oriented realist. Doers.</i><br>Most practical of types.<br>Learn best when useful application are obvious.                                                                                 | EF<br><i>Action oriented cooperators.</i><br>Sociable, friendly, sympathetic. They like to make things happen for the pleasure or welfare of others.                                                        |
| English Canada | NT<br><i>Logical and ingenious.</i> Focus on possibilities but judge these with impersonal analysis. Trend to pursue technical, scientific, theoretical or executive interests.                             | NF<br><i>Enthusiastic, insightful.</i><br>Interested in the complexities of communication. Personal warmth.                                                                                                 |
| French Canada  | IT<br><i>Reflective reasoner.</i><br>Quiet and contemplative. Concern for basic principles. Are the most removed from daily social intercourse with people and are the slowest to develop social skills.    | IT<br><i>Reflective reasoner.</i><br>Quiet and contemplative. Concern for basic principles. Are the most removed from daily social intercourse with people and are the slowest to develop social skills.    |
| France         | TP<br><i>Adaptable thinker.</i><br>Objective, skeptical, observant and curious, especially about materials, events or possibilities that have or can be made to fit into consistent and orderly frameworks. | TP<br><i>Adaptable thinker.</i><br>Objective, skeptical, observant and curious, especially about materials, events or possibilities that have or can be made to fit into consistent and orderly frameworks. |

In Figure 7.3 we compare data of college students from U.S., Japan, Korea, and Taiwan, and using the Selection Ratio Type Table program. Keeping the U.S. data as the comparison base for the three countries, we follow the same procedure we did with the Western cultures.

The intensity of the fill pattern for each square suggests the proportion of each type within each group. The right shows the types or grouping of types that are

overrepresented in each sample, followed by the indices of comparison (I) obtained with the SRTT program.

The pattern of distribution of types of the Japanese college students (Ohsawa, 1991) stand in contrast to the other cultures because of its emphasis on SF. Although the Japanese version of the MBTI differs from others in the use of standard scores and factor analysis instead of preference scores and item analysis, the size of the sample inclines to take this distribution as probably representing a real tendency in that population. There is emphasis here on the value of the group or community (ESFP), on logic and ingenuity with impersonal analysis (NT), on being objective, skeptical, and observant (TP), and adaptability (SP). When a distribution with Japanese male subjects only (not presented here) is compared to Western distributions, the FP types come out as significant. This preference for the gentle types (adaptable, affiliative, harmony seekers), together with the significant differences described above, point to a cultural factor influencing the responses in the direction of socially desirable values. The connection with the influence of Buddhist values in Japanese education comes to mind.

The Korean and Taiwanese samples come closer than the Japanese to the U.S., except that they emphasize ISTJ. This seems to be pointing to a more introverted and conservative value in these cultures. The influence of Confucianism can be cited in this regard. None of these educational or philosophical values presented here as associated with each culture is better than the other; they are all valuable and complement each other. But, as Jung points out, they are "not only concepts and ways of looking at things... but also (emotions) feelings" (CW. 6, par. 692).

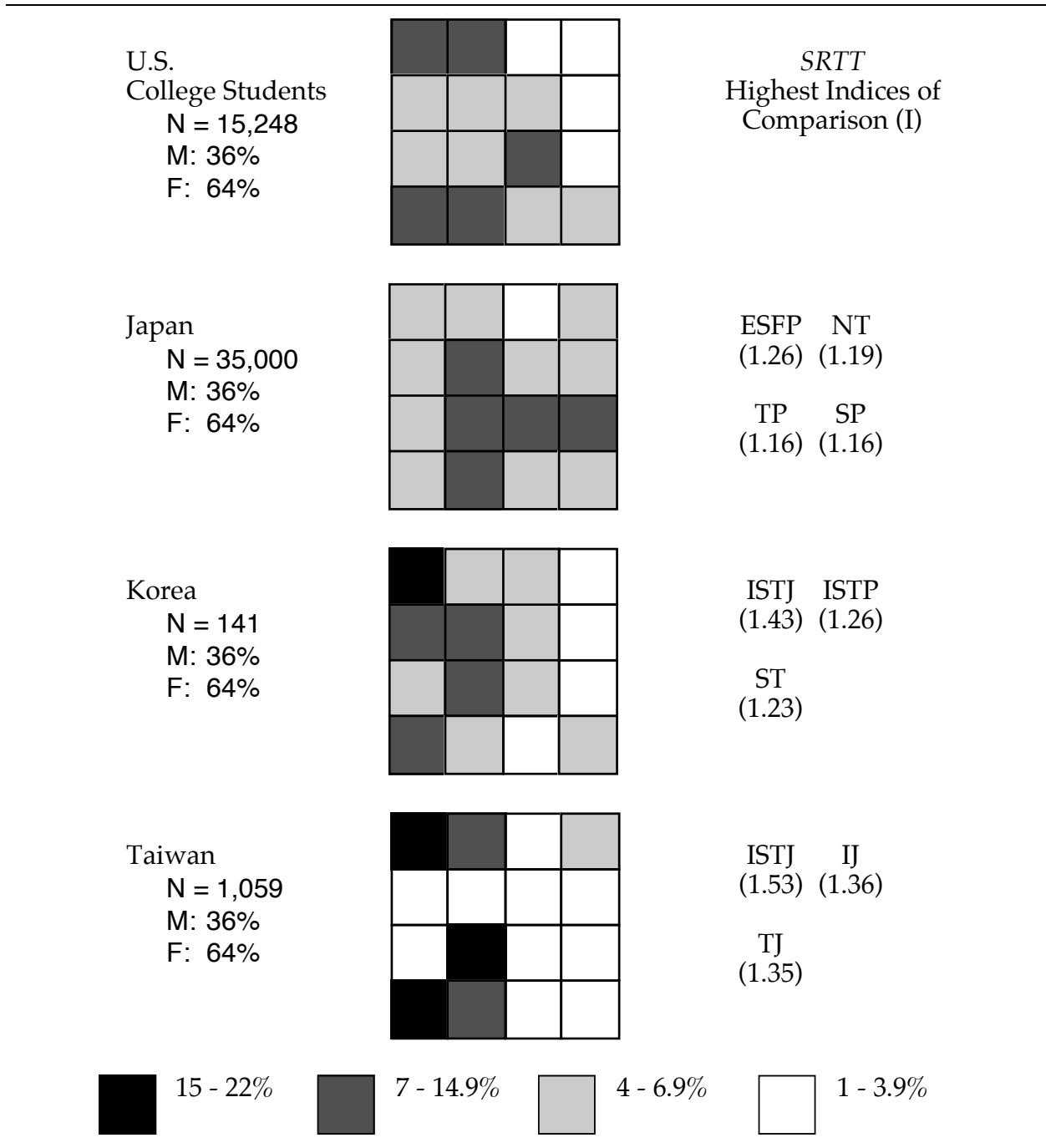
When differences are perceived among cultures, emotional defensive reactions and misunderstandings emerge from the confrontation of opposing collective points of view.

If we look now at these collective attitudes from the point of view of the individual, we find that they represent a challenge for the development of the individual whose preferences are different from the collective one. It is probably also a challenge for those individuals who share the collective preferences and for that reason may not find many opportunities to develop their least preferred attitudes.

The identification of collective attitudes therefore has two main practical implications: first, they present a challenge to the personal development of the individual within the culture, and second, they may serve as the basis for emotionally charged negative stereotyping across cultures. Awareness of these attitudes and their acceptance as valuable aspects of human condition may lead to tolerance and respect.

From the theoretical point of view, research using the hypothesis of a collective attitude allows us to investigate a psychocultural factor with Jungian typology and, more specifically, with an instrument such as the MBTI, provided that culturally validated versions are used and sound methodological controls are followed.

Figure 7.3  
College Students (Male and Female)



### References

- Casas, E. (1991). Constructing valid translations of the Myers-Briggs Type Indicator. *Bulletin of Psychological Type, 14* (4).
- Casas, E. (1990). *Les types psychologiques jungiens*. Edmonton, ALTA: Psychometrics Canada.
- Hwang, C.-H., & Chi-en, H. (1991). Chinese university students on the MBTI. A study from Tung-Hai University, Taiwan, Cedarville College. Paper presented at APT IX International Conference, Richmond, Virginia.
- Jung, C. G. (1976). *Psychological types* (Collected Works. 6). Princeton, NJ: Princeton University Press.
- Myers, I. B. (1987). *Introduction to type*. Palo Alto, CA: Consulting Psychologists Press.
- Myers, I. B., & McCaulley, M. H. (1985). *Manual: A guide to the development and use of the Myers-Briggs Type Indicator*. Palo Alto, CA: Consulting Psychologists Press.
- Myers, I. B., & Myers, P. B. (1980). *Gifts differing*. Palo Alto, CA: Consulting Psychologists Press.
- Macdaid, G. P., McCaulley, M. H., & Kainz, R. I. (1986). *Atlas of type tables*. Gainesville, FL: Center for Applications for Psychological Type, Inc.
- Ohsawa, T. (1991). The application of the Japanese translation of the Myers-Briggs Type Indicator, Tokyo, Japan. *Bulletin of Psychological Type, 14* (1).
- Sim, H.-S., & Jung-Tack, K. (1990). The development and validation of the Korean version of the MBTI. Unpublished article based on a Ph.D. dissertation. Seoul, Korea: Sogang University.