



## Exploring universal personality characteristics: An objective approach<sup>1</sup>

James N. Butcher<sup>2</sup> (*University of Minnesota, USA*)

(Recibido 8 de febrero 2005/ Received February 8, 2005)

(Aceptado 14 de junio 2005 / Accepted June 14, 2005)

**ABSTRACT.** Mental health practitioners have long wondered whether there is a common core to psychopathology or whether mental illness is largely culturally based. Mental health problems could result primarily from cultural factors. Yet, many professionals have observed the similar ways psychiatric disorders become manifest regardless of the unique cultural and educational backgrounds of their people. Several mental disorders (e.g., schizophrenia and bipolar disorder) that one can find in DSM-IV-TR or ICD-10 have been shown to have many characteristics that are similar in symptoms across cultural boundaries. The question as to the similarity of abnormal behavior across cultures can only be adequately understood if a common methodology for researching mental health problems is used across cultures. The use of objective research strategies, such as the Minnesota Multiphasic Personality Inventory (MMPI-2) can provide a valuable means of objectively comparing mental health problems across cultures. This theoretical study addresses the value of cross-cultural personality research and examines the utility of comparing mental health problems with an instrument, like the MMPI-2, that has been shown to have both validity and utility across cultures. Important steps to improve cross-cultural mental health research are considered.

**KEYWORDS.** MMPI-2. Personality assessment. Cross-cultural research. Theoretical study.

---

<sup>1</sup> Invited Address on at the University of Florence, Italy for the Honoris Causa Degree awarded by the Università degli Studi di Firenze.

<sup>2</sup> Correspondence: Department of Psychology. University of Minnesota. Minneapolis, Minnesota (USA). E-mail: butch001@tc.umn.edu

**RESUMEN.** Durante mucho tiempo los profesionales de la salud mental se han preguntado acerca de algún núcleo común en la psicopatología o si la enfermedad mental se basa en gran parte en la cultura. Los problemas de salud mental podrían ser consecuencia principalmente de factores culturales. Muchos profesionales han observado las formas similares en que los trastornos psiquiátricos se manifiestan a pesar de los antecedentes únicos culturales y educativos de las personas. Varios trastornos mentales (e.g., esquizofrenia y el trastorno bipolar) encontrados en el DSM-IV-TR o ICD-10 han demostrado tener muchas características en común a través de los límites culturales. La cuestión referida a la similitud del comportamiento anormal a través de las culturas sólo puede ser comprendida adecuadamente si se emplea una metodología común para investigar los problemas de salud mental a través de las culturas. El uso de estrategias de investigación objetivas, como el *Minnesota Multiphasic Personality Inventory (MMPI-2)* puede proporcionar una forma valiosa para comparar objetivamente los problemas de salud mental a través de las culturas. Este estudio teórico estudia el valor de la investigación en la personalidad transcultural y examina la utilidad de comparar los problemas de salud mental con un instrumento, como el MMPI-2, que ha demostrado tener validez y utilidad a través de las culturas. Se consideran también los pasos más importantes para mejorar la investigación de la salud mental transcultural.

**PALABRAS CLAVE.** MMPI-2. Evaluación de la personalidad. Investigación cultural. Estudio teórico.

**RESUMO.** Durante muito tempo os profissionais de saúde mental perguntaram-se se existe algum núcleo comum para a psicopatologia ou se a doença mental se baseia em grande parte na cultura. Os problemas de saúde mental poderiam resultar principalmente de factores culturais. Muitos profissionais observaram as formas similares em que as perturbações psiquiátricas se manifestam apesar dos antecedentes únicos culturais e educativos das suas pessoas. Diversas perturbações mentais (por exemplo, esquizofrenia e a perturbação bipolar) encontradas na DSM-IV-TR ou na ICD-10 têm demonstrado ter muitas características em comum com os sintomas através de limites culturais. A questão relativa à similitude de comportamento anormal através das culturas só pode ser compreendida adequadamente se, se empregar uma metodologia comum para investigar problemas de saúde mental através das culturas. O uso de estratégias de investigação objectivas, como o *Minnesota Multiphasic Personality Inventory (MMPI-2)*, pode proporcionar uma forma valiosa de comparar objectivamente os problemas de saúde mental através das culturas. Este estudo teórico analisa o valor da investigação na personalidade transcultural e examina a utilidade de comparar os problemas de saúde mental com um instrumento, como o MMPI-2, que tem demonstrado ter validade e utilidade através das culturas. Consideram-se também os passos mais importantes para melhorar a investigação da saúde mental transcultural.

**PALAVRAS CHAVE.** MMPI-2. Avaliação da personalidade. Investigação cultural. Estudo teórico.

### Introduction

Practitioners in the mental health field have pondered the question as to whether there is a common human core to psychopathology or whether mental illness is culturally constructed. Given the great diversity among the peoples of the world can “abnormal” behavior only be culturally defined? Or are there classes of mental disorders that cross boundaries of culture and become manifest in similar ways regardless of the unique cultural and educational backgrounds of their people? Can professionals from such different and distinctive backgrounds rely upon the same methods for personality and clinical assessment? For many centuries, professionals have been aware of and have tried to understand mental disorders. Soranus, the Greco-Roman physician from Ephesus in the fifth century AD, provided symptomatic descriptions of several mental disorders that have many characteristics that are similar in symptoms to schizophrenia and bipolar disorder that one can find in DSM-IV-TR or ICD-10. And countless medical professionals in different countries have studied various manifestations of emotional problems that appear highly similar in form. Yet, the relative contributions of environment, culture, and biological factors still elude us. Similar clinical syndromes such as depression and schizophrenia can be found across cultures. On the other hand, research in anthropological psychiatry has made us aware that unique mental disorders have been also described in different cultures around the world. There have been a number of culture specific disorders identified, for example in different cultures around the world (Bartholomew, 1997; Lewis and Ednie, 1997). There are some syndromes that are “culture bound”, for example:

- Amokis a disorder found in Malaysia, Laos, or the Philippines, that is marked by sudden, wild outbursts of violent aggression or homicidal behavior in which an afflicted person may kill or injure others. This rage disorder is usually found in males who are socially withdrawn, quiet, often precipitated by a perceived slight or insult.
- Koro is a disorder reported in Southeast Asia that involves a fear reaction or anxiety state in which a man fears that his penis will withdraw into his abdomen and has concerns that he may die. This reaction may appear after sexual overindulgence or excessive masturbation. The anxiety is typically very intense and of sudden onset. The condition is “treated” by having the penis held firmly by the patient or by family members or friends. The penis is often clamped to a wooden box in hopes of preventing the withdrawal.

There is evidence to suggest that patients’ symptom presentation and conceptualizations of illness vary across cultures and there are clearly unique patterns that have been described; however, we are haunted by the fact that universal characteristics among many clinical syndromes exist. Syndromes of depression and schizophrenia can be found across cultures (Good and Kleinman, 1985; World Health Organization, 1973). Even with the clear patterns of symptoms there is also evidence suggesting that patients’ symptom presentation and conceptualizations of illness vary across cultures. For example, in China, depressed patients have been described as emphasizing their somatic symptoms more than their affective symptoms and as seeking medical rather than psychological/psychiatric treatment for their conditions (Kleinman, 1986).

*The importance of cross-national research in abnormal psychology*

Psychology and Psychiatry are fields of knowledge that, for the most part, originated in western culture. Yet, the increased globalization of thought and the contrasts in viewpoints that occur with the convergence of diverse views from different cultures has forced a broadening of these professional views. Cultural differences in definitions of “abnormal” behavior make Western clinicians cautious about imposing diagnostic criteria derived from Western culture on to other cultures. Examining the behavior of members of other cultures may make salient the particular aspects of Western behavior that have largely gone unnoticed by Western social scientists. And, the increased globalization of thought and the contrasts in viewpoints that occur with diverse views from different cultures converging has forced a broadening of these professional views (Thakker, Ward, and Strongman, 1999).

*Traditional methods of study*

In the past, the field of psychopathology research has largely employed two general information-gathering approaches for the study and classification of abnormal behavior—the clinical interview and behavioral observation. A great deal of advancement has been made in the past with these two methods. Our understanding of abnormal behavior across cultures has clearly been enhanced by the development of explicit diagnostic criteria that can be applied across national and cultural boundaries. Several recent studies have, for example, applied the WHO diagnostic schema across diverse populations (Brugha, Jenkins, Taub, Meltzer, and Bebbington, 2001) with limited success. Clinical interviews have been notoriously unreliable in the quality of information they provide and the interview method has had its share of critics. Clinical interviews that are typically used in diagnosis are influenced by biases that may differ across interviewers and across cultures. Cultural differences in definitions of “abnormal” behavior make Western clinicians cautious about imposing diagnostic criteria derived from Western culture on to other cultures (Butcher, Narikiyo, and Bemis-Vitousek, 1993). Another problem that has impacted the use of interview-based information gathering is that different systems appear to bring about different conclusions. For example, recent studies have applied the WHO and DSM-IV diagnostic schema across diverse populations. And, when different diagnostic systems are applied with the same case e.g. through SCAN interviews, different diagnostic pictures often emerge. The field of psychopathology has also been limited because the traditional research methods available do not directly assess the persons experiencing the disorder. Rather, the long standing methods of arriving at a clinical diagnosis—the clinical interview and behavioral observation—are influenced by biases and cultural backgrounds of the observers. The culture of the interviewer can have a biasing effect on interview applications and limit the generalizability of research conclusions.

**An objective framework in cross-national study of abnormal behavior**

We have been limited in our pursuit of knowledge in the international mental health field because the methods used have typically not included a more objective and direct assessment of patient’s symptoms, emotions, and attitudes.

*Use of patient self-report in the assessment of personality and mental health symptoms*

Rather than the indirect assessment of patients mental health problems through the clinical interview an alternative approach is to directly ask the patient about his or her mental health problems or emotional adjustment. A direct and effective means of obtaining symptomatic information from patients is through their responses to a standard, structured set of questions -the personality questionnaire-. This approach provides a method of direct comparison of characteristics and problems and provides information that is not “filtered” through the views of an interviewer.

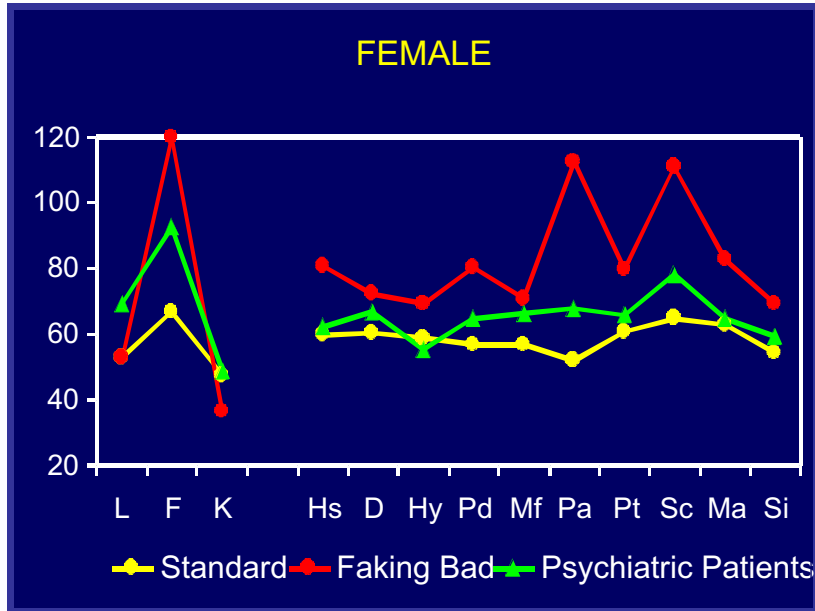
*Western personality instruments can provide valuable information cross-culturally*

The structured and standardized format of objective personality instruments make them easy to administer and reduce the variance and bias that can be introduced with the clinical interview. Moreover, data on their reliability and validity can be easily obtained and measured. Structured personality assessment measures, particularly the most widely used test, the Minnesota Multiphasic Personality Inventory (MMPI) (Butcher, 1996; Butcher, Lim, and Nezami, 1998), have been extensively adapted into languages and cultures that are different from the country in which they were originally developed (Butcher, Derksen, Sloore, and Sirigatti, 2003; Butcher, Nezami, and Exner, 1998). Most have been adapted in order to provide practitioners in other countries with a means of assessing personality for use in clinical decisions.

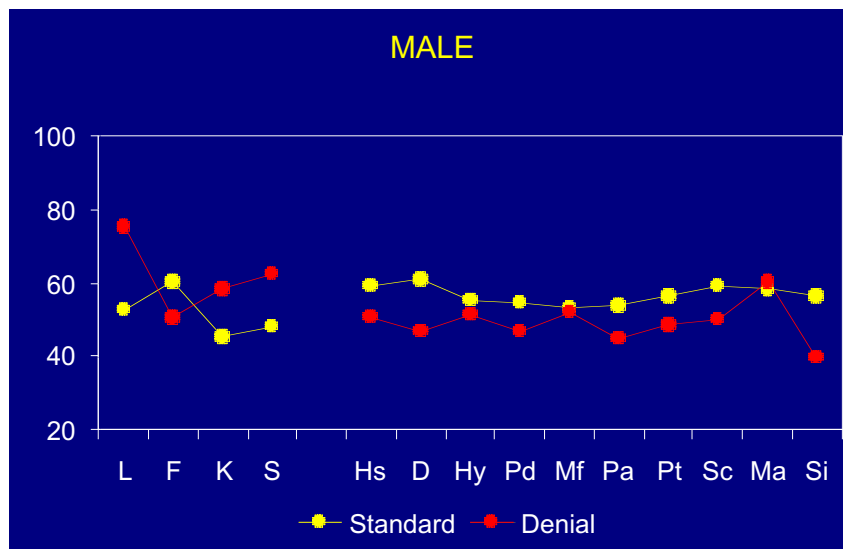
*Value of test based response set or validity scales*

One important strength of using objective personality tests is that there are several response set measures that address the credibility of the patient’s responding. Thus, participants who have not provided adequate data (e.g., defensive or exaggerated responding) can be identified and eliminated from the study. Data on the believability of the client’s responding and the reliability and validity of the measurement can be easily obtained and measured. There is an extensive literature on the use of the validity scales in assessing invalidating test conditions available (Bagby, Marshall, Bury, Bacchioni, and Miller, in press). Several international studies on the usefulness of the MMPI-2 validity scales in detecting invalid profiles have been undertaken. In Korea, Hahn (2003) conducted a study appraising the utility of the validity scales of the Korean MMPI-2 in differentiating faked profiles (see Figures 1 and 2). She administered the MMPI-2 twice to a sample of 169 Korean college students (82 male, 87 female). The participants completed the MMPI-2 with standard instructions to answer the items “as they apply to themselves” in one condition and in a second administration they were assigned to one of three experimental conditions to answer the items to 1) fake bad, or to 2) deny psychological problems, or to 3) claim extreme virtue. Hahn (2003) found that F, Fb, and F-K index of the Korean MMPI-2 was successful in differentiating fake bad subjects from honest subjects and from psychiatric patients.

**FIGURE 1.** Comparison of fake bad, standar, and psychiatric MMPI-2 scores in korean samboles (Hahn, 2003).



**FIGURE 2.** Comparison of standard and denial administrations of the MMPI-2 in Korean samples (Hahn, 2003).



Other studies of the effectiveness of MMPI-2 validity scales have been reported in other countries. For example, Sirigatti and Giannini (2000) found that the S scale operated in a similar manner for detecting defensiveness in Italy; Cheung, Song, and Butcher (1991) developed an F scale in China, based on the original MMPI F scale, that operates in a similar manner to detect exaggerated responding.

*Translation and adaptation ad equivalence of measures*

The adaptation of a psychological test into other languages can be challenging. It is important to assure that the instruments are functionally equivalent to the instruments from the country of origin (Brislin, Lonner, and Thorndike, 1973). In order to assure the equivalence of psychological tests being adapted into other languages and cultures, the constructs underlying the test need to be comparable and describe the same behavior personality factors in both cultures. The methods of assessing them need to be demonstrated to be equivalent. Several criteria for an adapted instrument have been established for cross cultural personality assessment research:

- The personality measure should be translated according to high test standards. Test translation standards for the MMPI have been described in several resources (Butcher and Han, 1996; Butcher and Pancheri, 1976).
- The instrument needs to have demonstrated equivalence. Test equivalence should be demonstrated by alternate form reliability studies (Butcher and Gur, 1974).
- The instrument should have a substantial established data base to serve as reference resources for investigators and clinicians. The MMPI-2 has a very substantial research base of well over 14,000 publications (Butcher, Atlis, and Hahn, 2003) including several hundred articles on test translation and international test development (see Butcher, Graham, Ben-Porath, Tellegen, Dahlstrom, and Kaemmer, 2001; Graham, 2000 for a discussion of research on the MMPI-2).
- In the initial adaptation, it is usually valuable to provide training workshops in the instrument when it is introduced.
- In countries where more than one language is spoken, it is desirable to have successful existing translations in other languages. For example, in Belgium where both French and Flemish are spoken it is desirable to have both language versions available in order to facilitate research and practice.
- The instrument should have available interpretive textbooks that can be translated into the language of the target country. It is valuable to translate into the target language one or more standard textbooks that explore test interpretation so that practitioners in can have interpretive guides available.

Psychological tests being adapted into other countries and languages than the original version need to carefully proven out in terms of validity, reliability, and use of tests being adapted in other countries (Geisinger, 1994). In order for tests to be successfully translated and adapted in different cultural contexts they need to have clearly demonstrated validity and reliability in their home countries. In is also important that research on the utility of the test needs to be undertaken in the country of adaptation to demonstrate that it operates in the same manner in the target culture as it did in the country of development.

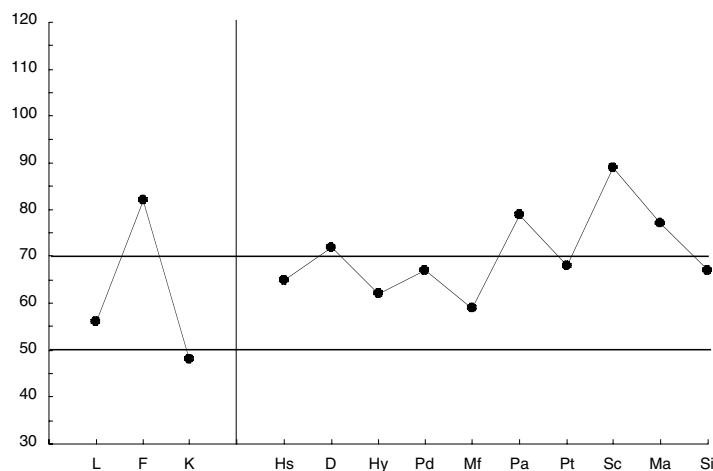
Once an instrument is translated and the equivalence has been determined it is important to direct research toward the goal of assuring predictive validity, that is, determining whether the scales actually predict the expected behavior in the target population (see studies by Han, 1996; Manos, 1985; Savasir and Erol, 1990).

#### *The MMPI and MMPI-2*

The international adaptation of the MMPI has a long history—one that began shortly after the test was first published in the 1940's. Bernal del Riesgo in Cuba (Mendoza Quevedo and Butcher, 2005), Reda in Italy (Butcher and Pancheri, 1976), and Abe in Japan (Abe, 1959) were among the early personality assessment psychologists who pioneered cross-cultural test adaptation with the MMPI. A great deal has been written about the use of the MMPI/MMPI-2 in international applications (Arbisi and Butcher, 2004; Butcher, 1996; Butcher, 2004; Butcher, Cheung, and Lim, 2003; Butcher *et al.*, 2003; Butcher and Pancheri, 1976). What can be learned from the use of objective personality testing with respect to cross-cultural psychopathology?

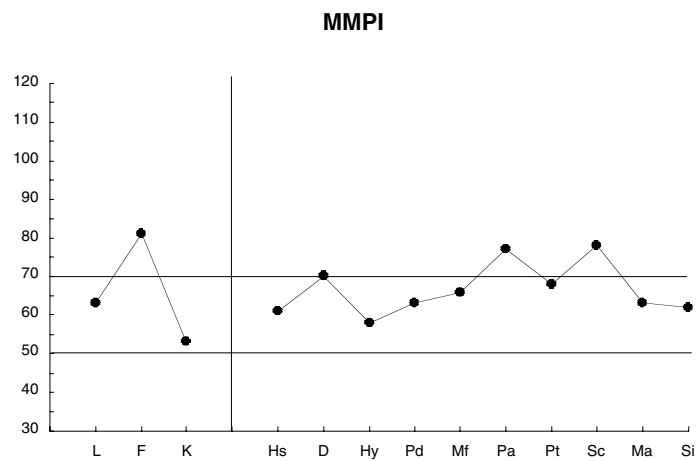
- The “universality” of symptoms and behavior in mental disorders and the utility of our constructs to characterize them can be explored. The data shown in Figures 3, 4, and 5 show clearly that similar diagnostic groups, such as schizophrenia, produce highly similar profile high points (see Butcher and Pancheri, 1996 for further discussion.) Having an instrument that provides reliable information about known clinical groups, like schizophrenics, enables researchers to explore other important variables such as heritability in empirical studies (Gottesman and Shields, 1972).

**FIGURE 3.** Mean MMPI profile of 6 paranoid schizophrenic women from Thailand.

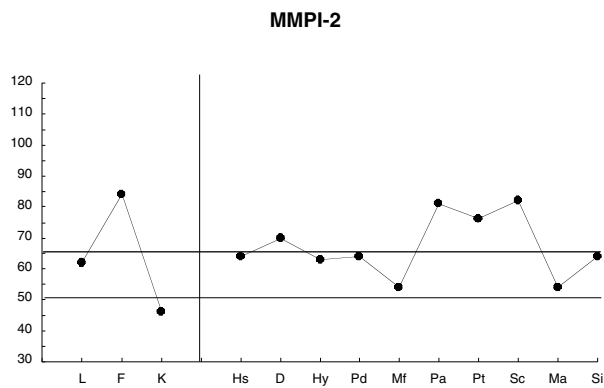




**FIGURA 4.** Group mean profile of 45 paranoid schizophrenic women from beijing.

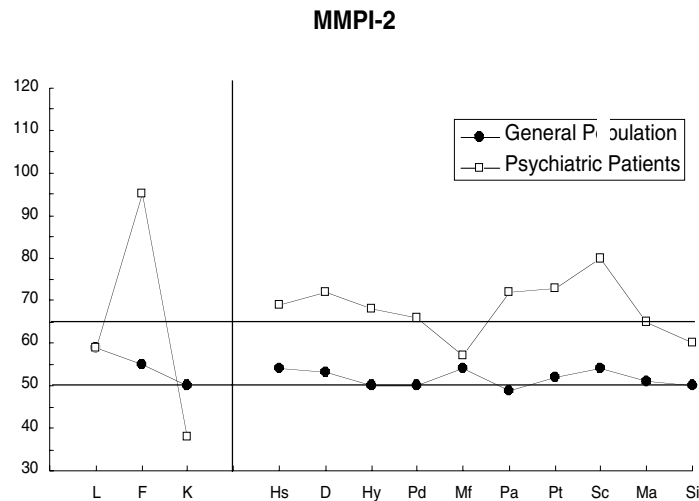


**FIGURA 5.** Japanese male schizophrenics.



- Group differences on established personality measures between homogeneous classification groups allowing investigators to evaluate possible differences between similar groups. For example, Butcher and Pancheri (1976) pointed out that psychiatric patient groups may have highly similar MMPI high points but there may be important group differences emerge as shown in Figure 6 that lead to interpretive differences between national groups.

**FIGURE 6.** Italian normal women vs. psychiatric patients (Pancheri, Sirigatti, and Biondi, 1996).



- Examination of specific item differences can provide valuable information about mental health problems in the specific culture being studied. Butcher and Gur, (1974) evaluated item response differences between Israeli and American college students finding that several clusters of items (such as religious beliefs, life attitudes, and the importance of duty) appeared between the samples that reflected cultural differences can prove valuable to understanding personality differences emerging from different cultural backgrounds.

#### *Extent of MMPI-2 use in international applications*

As recently noted by Butcher (2004), during the last half of the 20<sup>th</sup> Century, the United States was involved in great political conflict with several nations—Cuba, Iran, the former Soviet Union, and China—governments that held opposite political, cultural, or religious values. During this time, it was not uncommon for international news to feature a high degree of political conflict involving a great amount of anti American rhetoric and actions— overt aggressive acts such as the Bay of Pigs invasion in Cuba and the taking of American hostages at the American embassy in Iran. Interestingly, the rejection of American ideas did not represent the total view of the population because some psychologists in Cuba, Iran, and the Soviet Union continued to use one bit of “Americanism”— MMPI assessment during these times of conflict. The MMPI continued to be used and researched in these countries—even for military screening (Butcher *et al.*, 2003; Nezami and Zamani, 1996; Mendoza Quevedo and Butcher, 2005) and it was also used for Cosmonaut selection in the former Soviet Union (Koscheyev and Leon, 1996). Even psychologists in the People’s Republic of China (which was involved in

a “hot war” against the United States in the 1950’s) were enthusiastic to acquire MMPI technology after opening their doors to the Western influence. Most recently, Al-Salihy (1996), a psychologist from the University of Baghdad in Iraq, developed an MMPI-2 project in that country after the 1<sup>st</sup> Gulf War even though the climate under Saddam Hussain was marked by intense conflict with the United States. Since the end of the Second Gulf War, even during this period of great turmoil and conflict in that country, he has re-established his project in Baghdad for continuing his personality assessment program.

### **The internationalization of objective psychopathology research**

#### *Suggestions for future directions: Prospects for future research*

Opportunities for a more objective and global view of psychopathology currently exist in contemporary psychology. The future holds broad possibilities for psychologists to apply objective research methods to acquire more culturally based science of psychopathology. First, psychology is growing as a profession around the world. One has only to look at the expanding research developments in Asia, particularly China, to gain an appreciation of the extent of psychological research in the world today (Butcher *et al.*, 2003). There is a growing assemblage of personality researchers in many countries that have both the motivation and qualifications for collaborative international personality assessment research. Second, the ability to communicate among researchers in today’s high speed internet world is an important new development of the past ten years. Only a few years ago, it was extremely difficult to conduct cross-cultural psychological research because of the unavailability of a means for sharing research findings other than through scientific publications that often were years in coming to light. Communications were hampered by the high cost of international telephone communication and the unreliability of mail. In today’s world even the most distant sites in the world can have computer internet hook up so that research collaboration can be frequent and thorough. Third, ready access to the extensive body of published research can be a great advantage to collaborating researchers today. For example, the American Psychological Association’s electronic referencing service *PsycLit* includes abstracts for international journals makes cross cultural studies readily available. One only has to examine the broad array of research coming out of China to recognize that there is indeed a revolution underway in the science of psychology. Fourth, there are a large number of well-developed translations of the MMPI-2 presently available—over 33 (Butcher, 1996) that could serve as a basis for cross-national research studies. Fifth, one can have a high degree of confidence in the equivalence and utility of personality measures, like the MMPI-2. Collaborators in other countries have access to the MMPI-2 because of its availability in many languages. The broad use of more highly standardized and comparable item translations make research done in one country comparable and usable in others enables psychological research (even in remote areas of the world) cumulative.

The internationalization of objective psychopathology research has only begun. I anticipate that the coming decades will experience a more extensive use of global research designs. If one’s goal is a lasting contribution to the field of psychopathology—

it is not sufficient to limit designs to a single culture. In the next generation of international personality assessment studies, researchers need to broaden the spectrum of research to include more diversity in their approaches-including cross cultural components.

### References

- Abe, M. (1959). *Comparison between Japanese and Americans by the MMPI*. Psychological papers to commemorate the 35th anniversary of Dr.Y.Ohwaki's professorship at Tohoku University.
- Al-Salihy, A. S. (1996). *A Comparative study between Minnesota Multiphasic Personality Inventory, classical and computer administration methods*. M.Sc dissertation. Univerxity of Bagdad, Iraq.
- Arbisi, P. and Butcher, J. N. (2004). Relationship between personality and health symptoms: Use of the MMPI-2 in medical assessments. *International Journal of Health and Clinical Psychology, 4*, 571-595.
- Bagby, R. M., Marshall, M. B., Bury, A., Bacchiochi, J. R., and Miller, L. S. (in press). Assessing underreporting and overreporting response styles on the MMPI-2. In J.N. Butcher (Ed.), *MMPI-2: The practioners guide*. Washington: American Psychological Association.
- Bartholomew, R. (1997). The medicalization of the exotic: Latah as a colonialism-bound Syndrome. *Developmental Behavior, 18*, 47-75.
- Brislin, R. W., Lonner, W. J., and Thorndike, R. M. (1973). *Cross-cultural research methods*. New York: Wiley.
- Brugha, T. S., Jenkins, R., Taub, N., Meltzer, H., and Bebbington, P. E. (2001). A general population comparison of the Composite International Diagnostic Interview (CIDI) and the Schedules for Clinical Assessment in Neuropsychiatry (SCAN). *Psychological Medicine, 31*, 1001-1013.
- Butcher, J. N. (1996). *International adaptations of the MMPI-2: Research and clinical applications*. Minneapolis, MN: University of Minnesota Press.
- Butcher, J. N. (2004). Personality assessment without borders: Adaptation of the MMPI-2 across cultures. *Journal of Personality Assessment, 83*, 90-104.
- Butcher, J. N., Atlas, M., and Hahn, J. (2003). Assessment with the MMPI-2: Research base and future developments. In D. Segal (Ed.), *Comprehensive handbook of psychological assessment* (pp. 30-38). New York: John Wiley.
- Butcher, J. N., Cheung, F. M., and Lim, J. (2003). Use of the MMPI-2 with Asian populations. *Psychological Assessment, 15*, 248-256.
- Butcher, J. N., Derksen, J., Sloore, H., and Sirigatti, S. (2003). Objective personality assessment of people in diverse cultures: European adaptations of the MMPI-2. *Behavior Research and Therapy, 41*, 819-840.
- Butcher, J. N., Graham, J. R., Ben-Porath, Y. S., Tellegen, Y. S., Dahlstrom, W. G., and Kaemmer, B. (2001). *Minnesota Multiphasic Personality Inventory-2: Manual for administration and scoring* (revised edition). Minneapolis, MN: University of Minnesota Press.
- Butcher, J. N. and Gur, R. (1974). A Hebrew translation of the MMPI: An assessment of translation adequacy and preliminary validation. *Journal of Cross-cultural Psychology, 5*, 220-228.
- Butcher, J. N. and Han, K. (1995). Development of an MMPI-2 scale to assess the presentation of self in a superlative manner: The S Scale. In J. N. Butcher and C. D. Spielberger (Eds.), *Advances in personality assessment* (volume 10) (pp. 25-50). Hillsdale, N. J.: LEA Press.
- Butcher, J. N. and Han, K. (1996). Methods of establishing cross-cultural equivalence. In J. N.

- Butcher (Ed.), *International Adaptations of the MMPI-2* (pp. 44-66). Minneapolis, MN: University of Minnesota Press.
- Butcher, J. N., Lim, J., and Nezami, E. (1998). Objective study of abnormal personality in cross-cultural settings: The Minnesota Multiphasic Personality Inventory (MMPI-2). *Journal of Cross-Cultural Psychology, 20*, 189-211.
- Butcher, J. N., Narikiyo, T., and Bemis-Vitousek, K. (1993). Understanding abnormal behavior in cultural context. In H. Adams and P. Sutker (Eds.), *Comprehensive handbook of psychopathology* (second edition)(pp. 83-108). New York: Plenum Press.
- Butcher, J. N., Nezami, E., and Exner, J. (1998) Psychological assessment of people in diverse cultures. In S. Kazarian and D. R. Evans (Eds.), *Cross cultural clinical psychology* (pp 61-105). New York: Oxford University Press.
- Butcher, J. N. and Pancheri, P. (1976). *Handbook of cross-national MMPI research*. Minneapolis, MN: University of Minnesota Press.
- Cheung, F.M., Song, W.Z., and Butcher, J.N. (1991). An infrequency scale for the Chinese MMPI. *Psychological Assessment, 3*, 648 □653.
- Geisinger, K. F. (1994). Cross-cultural normative assessment translation and adaptation issues influencing the normative interpretation of assessment instruments. *Psychological Assessment, 6*, 304-312.
- Good, B. and Kleinman, A. (1985). Epilogue: Culture and depression. In A. Kleinman and B. Good (Eds.), *Culture and depression* (pp.491-506). Berkeley: University of California Press.
- Gottesman, I. I. and Shields, J. (1972). *Schizophrenia and genetics: A twin study vantage point*. New York: Academic Press.
- Graham, J. R. (2000). *MMPI-2: Assessing personality and psychopathology*. New York: Oxford University Press.
- Hahn, J. (2003). Faking and defensive responding in Korean MMPI-2. *Dissertation Abstracts International: Section B: The Sciences & Engineering, 64(6-B)*, 2971.
- Han, K. (1996). The Korean MMPI-2. In J. N. Butcher (Ed.), *International adaptations of the MMPI-2: Research and clinical applications* (pp. 88-136). Minneapolis, MN: University of Minnesota Press.
- Kleinman, A. (1986). *Social origins of distress and disease: Depression, neuroasthenia, and pain in modern China*. New Haven: Yale University Press.
- Koscheyev, V. and Leon, G. L. (1996). The Russian translation and preliminary adaptation of the MMPI-2. In J. N. Butcher (Ed.), *International adaptations of the MMPI-2* (pp. 385- 394). Minneapolis, MN.: University of Minnesota Press.
- Lewis, C. F. and Ednie, K. (1997). Koro and homicidal behavior. *American Journal of Psychiatry, 154*, 1169.
- Manos, N. (1985). Adaptation of the MMPI in Greece: Translation, standardization, and cross-cultural comparison. In J. N. Butcher and C. D. Spielberger (Eds.), *Advances in personality assessment* (volume 4) (pp. 159-207). Hillsdale, N. J.: LEA Press.
- Mendoza Quevedo, K.M. and Butcher, J.N. (2005). The use of MMPI and MMPI-2 in Cuba: A historical overview from 1950 to the present. *International Journal of Clinical and Health Psychology, 5*, 335-347.
- Nezami, E. and Zamani, R. (1996). The Persian MMPI-2. In J. N. Butcher (Ed.), *International adaptations of the MMPI-2* (pp. 506-521). Minneapolis, MN: University of Minnesota Press.
- Pancheri, P., Sirigatti, S., and Biondi, M. (1996). Adaptation of the MMPI-2 in Italy. In J. N. Butcher (Ed.), *International adaptations of the MMPI-2: Research and clinical applications* (pp. 416-441). Minneapolis, MN: University of Minnesota Press.

- Savasir, I. and Erol, N. (1990). The Turkish MMPI: Translation, standardization and validation. In J. N. Butcher and C. D. Spielberger (Eds.), *Advances in Personality Assessment* (volume 8) (pp. 49-62). Hillsdale, NJ: Lawrence Erlbaum Associates.
- Sirigatti, S. and Giannini, M. (2000). Detection of faking good on the MMPI-2: Psychometric characteristics of the S Scale. *Bollettino di Psicologia Applicata*, 232, 61-69.
- Thakker, J., Ward, T., and Strongman, K. T. (1999). Mental disorder and cross-cultural psychology: A constructivist perspective. *Clinical Psychology Review*, 19, 843-874.
- World Health Organization (1973). *The International Pilot Study of Schizophrenia*. Geneva: Author.