

- psychological assessment
  - career development
  - outplacement
  - recruitment

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**Comments on the Consultation Paper on  
*Options for the protection of the public posed  
by the inappropriate use  
of psychological testing*  
issued by the  
Psychology Board of Australia, May 2010**

**From  
Peter Macqueen, Compass Consulting**

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**16 August 2010**

### **Introduction**

This submission is in response to the issues posed by the Psychology Board of Australia (PBA) in its consultation paper titled *Options for the protection of the public posed by the inappropriate use of psychological testing*.

**I support in full the recommendation and the comments of the APS College of Organisational Psychologists.** However, I do not wish to cover in detail the same ground as that provided in the COP submission. Instead, I would like to emphasise certain points and also provide examples of inappropriate test use, particularly by a registered psychologist.

### **The nature of harm**

Perhaps it is appropriate to pose the following questions?

- Harm: To what extent do harm statistics reflect frequency, nature, degree and impact (short-term and long-term)? How much relevance do (historical) statistics have, particularly in the dynamic area of testing and assessment in the organisational field?
- Is there a difference between “no harm” versus “quality”? I think there is. While it is recognised that it is the remit of the PBA to minimise harm, rather than to necessarily raise quality, I think the enhancement of quality will provide better services for the end users of testing, raise the reputation of testing in the community and help to minimise harm. One of the concerns I have of a practice restriction approach is the likely development of a false sense of competence by psychologists and, an approach which could be perhaps be summarised as ‘mediocrity’ in the understanding and application of psychological knowledge, psychometric theory and test knowledge.

- Specific instances of harm:

The PBA has requested submissions to note examples of inappropriate test use resulting in harm. It appears that the PBA focus is on inappropriate use by non-psychologists. For a balanced perspective, it is important to consider inappropriate use by individuals, regardless of their professional title. Thence, one can determine the best strategy to address the "problem".

In **Appendix A** I have provided the following examples:

- The major example provided relates to the inappropriate interpretation of a personality test by a psychologist. This resulted in a recommendation for "do not employ" and it was based upon a grossly incorrect interpretation of a personality test profile.
- I refer also to common misunderstandings, by psychologists and non-psychologists, regarding relatively common tests used within organisational psychology. While I do not have any specific examples of "harm", there is the potential for harm or at least for inappropriate conclusions that may be drawn given the misunderstanding.

### **International trends and technology advancements**

The COP submission has outlined the developments in Europe (EFPA three tier system, aligned with the European Qualifications Framework (EQF)) as well as the BPS managed system which has been operational for many years. The COP paper also has outlined the likely introduction of ISO 10667 into Australia (via Standards Australia) early next year. This standard covers all aspects of workplace assessment, including psychologist testing, and has a "service delivery" focus rather than a "technical competence" focus. Nevertheless, it is something of which I believe the PBA (and the APS) should be very much aware.

Technology advancements are significant factors in organisational life and this impacts very much also on assessment activities. I see these technology impacts as being significant in not only organisational and educational spheres, but increasingly in other spheres of psychology.

The letter from the International Test Commission (ITC), attached as **Appendix B**, makes mention of this and other matters.

### **Stakeholders and complaints mechanisms: the need for a robust yet flexible approach**

Stakeholders may not only reside in different Australian jurisdictions but also in different countries of the world. Thus, the test candidate, the organisational client, the psychologist, the test publisher/developer and the country where the data are stored may well be spread across the globe. I would argue that the implementation of widely accepted international standards and guidelines provide a better and more adaptive means of dealing with this situation than do local practice restrictions. Furthermore, it is also necessary to consider the complaints mechanisms. I believe that this is one issue that

was raised recently in Western Australia by the Legislative Council's Standing Committee on Uniform Legislation and Statutes Review in its assessment of the introduced Health Practitioner Regulation National Law (WA) Bill 2010. While I realise that we have a national registration (and accreditation) system, the jurisdictional nature of the complaints system may well make dealing with serious complaints problematic. In which jurisdiction is a serious complaint heard if the service provider and the test candidate are located in different jurisdictions? It appears that a dynamic, internationally recognised, accreditation system offers more than a rigid and static system such as local practice restrictions. Such restrictions are a 'blunt tool' and will lead to unintended consequences given the elasticity in demand as noted in the PBA consultation paper. These consequences include, but are not limited to (a) a greater use of less valid assessment techniques in the work and organisational domain in Australia, and (b) the development of a market for overseas-based service providers to conduct assessment work, remotely via online technology, for Australian-based organisations. How do practice restrictions and the current complaints mechanisms deal with (b)?

### **The key issue – test user competence**

A point made explicitly in the COP submission is that the focus should be on the competence of the test user. I have met many organisational psychologists (and other psychologists) and students over the years and it would be fair to say that "some are better than others".

I have also gained the impression that standards are slipping or at least a solid appreciation of psychometrics, testing and assessment (incorporating theory, practice and data integration) are not keeping up. Australia used to have a number of well regarded (internationally) psychometricians, several of whom were actively involved in the ITC. (However, I recognise that psychometric knowledge is just one part of effective test use.) A system similar to that which is being developed in Europe would help to ensure, longer-term, a stream of well qualified individuals (predominantly psychologists, if not all) at the Level Three or Specialist Test User level. As noted in the COP submission, this is equivalent to a masters' degree in testing (alone) in terms of standards.

Given the above, I am also of the view that the PBA, APAC (and possibly APS) should look closely at the nature and content of both undergraduate and in particular postgraduate training in testing and assessment activities. A good deal of the training within a postgraduate program could mirror the requirements for a Level Three (Specialist Test User) within a specific practice area, for example. However, as noted in the COP submission, I doubt very much whether all modules could be completed through a postgraduate psychology training program as experience and context relevant skills are required.

Prien, Schippmann and Prien (2003) provide a good overview of the practice of individual assessment as applied to industry and consulting, particularly in the USA. As the authors note, this is "big business" but there is little research into the practice of individual assessment within industry. The authors offer suitable commentary regarding ethics and professional standards and make some interesting observations. They note also "What is desperately needed is either draconian control, to prevent incompetent practice, or establishment of a program of training and development, to develop competencies of

potential practitioners” (p 191). I argue, however, that there is a third path, and one which has been pioneered in the UK and is now being adopted in Europe. Draconian legislation can only really work within a closed system and there will be clear winners and losers. However, given the proliferation of online testing, the inflow and outflow of psychologists and related professionals in Australia, and the internationalisation of organisations, it would be a brave individual who states that we can maintain a closed system under such a regime. (I suspect the American authors of this book were focusing upon just the USA, with its messy and inconsistent state-based licensing laws. They would have been inalert to, or overlooked, the BPS model. Furthermore, a lot has changed over the last eight years since the book was completed.)

## Conclusion

I believe that a practice restriction does not address the fundamental issue: that of competence.

However, a hybrid model incorporating options 3, 4 and 5 raises standards and aligns Australia with international initiatives.

My final remark relates to the attempts to classify tests. Bartram (2010) contends that there are three skills required for testing in applied settings:

- a) Knowledge of psychological constructs,
- b) Knowledge of psychometric constructs, and
- c) Knowledge and skills related to the use of the instrument(s).

The third c) determines the level of knowledge required in a) and b). A test needs to be considered in the light of its intended use, and the competence of the person using and interpreting the test. (This parallels the notion that a test does not have validity in itself, but it is the inferences based upon the test use which have validity.) Once again, I believe that options 3, 4 and 5 are more suited to dealing with these complex and inter-related issues than is a practice restriction. An adaptive, open system approach is required, not a closed system which has the clear potential to be ineffective, with certain stakeholders taking real issue with a legislative restriction. **The attached letter (Appendix B) from the ITC appears to support this view.**

I urge the PBA to consider the options available, as outlined in the COP submission and noted briefly by myself, which can enhance standards in Australia and consequently provide a safety net for psychological test use in Australia. The model in **Appendix C** is simple – but illustrative of an effective way in which to raise testing and assessment standards.

Peter Macqueen  
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## REFERENCES

Bartram, D. (2010). When is assessment a psychological act? Presentation, 7<sup>th</sup> International Test Commission Conference, 19 July 2010, Hong Kong.

Prien, E.P., Schippmann, J.S. & Prien, K.O. (2003). *Individual Assessment: As practiced in industry and consulting*. Mahwah, New Jersey: Lawrence Erlbaum Associates.

**APPENDIX A****EXAMPLE 1**

- Service Provider:** Registered Psychologist  
This person was a mature individual with internal practitioner, academic (Australian university) and external management consultant experience. This person possessed post-graduate qualifications recognised at a master's level by the relevant state registration board.
- Context:** A selection assignment for a mid-level safety professional in industry. The short-listed candidate possessed tertiary qualifications and was assessed via interview, three standard cognitive tests and a personality questionnaire (16PF, Version 4 but then known as Form A). This incident occurred many years ago and I did not become aware of the event until some time later.
- Error:** The psychologist's report rejected the candidate on the basis of the candidate being "too abstract-thinking", apparently referencing Factor B of the 16PF. The Test Profile form for the 16PF provides descriptors for each end of the normally distributed Factor B: "concrete-thinking" (low score) and "abstract-thinking" (high score). Factor B is a cognitive measure, composed of 13 reasoning items with a verbal reasoning bias. It is not a measure of thinking style, 'abstraction', etc. [Factors M and I would provide some insight into thinking style.] The higher the Factor B score, the better, although the three separate cognitive measures provide a more reliable assessment of intelligence or reasoning.
- Harm:** The test candidate was not recommended on the basis of being too abstract-thinking and they did not obtain the position for which they had applied. While it is possible that other factors may have affected the decision by the client organisation, this faulty assessment is likely to have influenced the outcome - probably quite significantly given the clear conclusion of the psychologist.
- Final Comment:** This service provider is no longer registered as a psychologist. This psychologist had knowledge of psychometric concepts such as standard error of measurement, but had little appreciation of test data integration, regardless of the test(s) being used I suspect. An accreditation system would have highlighted these weaknesses and forced the person to improve their skills. Furthermore, in a three tier system, I suspect that this individual would have had trouble gaining Level Three recognition as a Specialist Test User. Specific training (by test publisher or independent provider) in the interpretation of the 16PF would have assisted. (This service provider did have access, however, to various 16PF manuals and guides.)

## APPENDIX A

### EXAMPLE 2

This is not an example of harm per se but an example of the misunderstanding of tests and what they measure. Accordingly there is the potential to produce harm or certainly to produce sub-optimal outcomes.

Some of the common errors by psychologists and non-psychologists include the following:

#### **Watson-Glaser Critical Thinking Appraisal (cognitive):**

A psychologist has referred to this as a test of fluid intelligence. This is incorrect (it is associated with crystallised intelligence) and this erroneous view has implications for the type of development recommended for otherwise capable individuals possessing low scores on this test. This test has also been called (particularly by non-psychologists but occasionally by psychologists) a test of "strategic thinking". It is a logic/comprehension test, although scores would correlate with 'managerial judgment' criteria. (This example also raises the issue that practitioners may define what is important, for job success for example, and then try to find a simple way (ie. one test) of 'measuring' what is really a multi-faceted construct.)

#### **Raven's Standard Progressive Matrices (cognitive):**

This is one of the most widely used tests in Australia, and probably worldwide (based upon a recent unpublished European survey of test use amongst psychologists). However, there are different versions of the SPM, with different test administration regimes. Furthermore, there is a possibility for practitioners to misinterpret what the test is measuring and/or overlook the level of cognitive complexity associated with the job requirements against which someone may be assessed. (This is apart from the issue that originally the SPM was designed as a 'power test' but is nearly always used in Australia in a speeded format.)

#### **DISC / DiSC (personality):**

In using this test there are errors committed by both by non-psychologists and experienced psychologists, supporting the view that being a psychologist alone does not ensure competence in test use and understanding. This personality test does have predictive validity for use in certain organisational settings and in certain roles, such as sales. However, practitioners and client organisation representatives can mistakenly believe that this four factor ipsative personality questionnaire (a problem in itself given the very high negative inter-correlations between the scales) can be valid across various settings and purposes. (I have seen it used as a measure of leadership in a senior executive role within a major Australian bank – it is inappropriate for such use and there are much better measures available.)

### Other 'Popular' Tests:

- The **Myers-Briggs Type Indicator**, the most popular personality test globally, has a role to play but not in personnel selection. While this message is getting through to many psychologists (but not all), a number of non-psychologists may still use this tool inappropriately. (However, where there is reinforcement of publisher standards, this is not an issue.)
- A more recent popular test is the **Herrmann Brain Dominance Instrument**, with some clients and HR practitioners requesting such a test be administered. Unfortunately, inappropriate and simple inferences may be drawn from the output, often presented in visually appealing graphical form. Of course, there are quite a few tests which, through the provision of such computer generated graphical displays, often with colour, could provide great appeal to those with limited psychometric knowledge and discernment.
- There is also a range of "emotional intelligence" tests and it is not uncommon, even for senior appointments within government departments, for a test of emotional intelligence to be the cornerstone of a desired test battery by the organisational client. (Many psychologists in such situations may administer not only a (requested) test of emotional intelligence but also a more robust global personality instrument.)

Education (of stakeholders) plus other accreditation and training initiatives will assist with many of the above issues. It is not just non-psychologists who are part of the "problem".

# THE INTERNATIONAL TEST COMMISSION



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## APPENDIX B

Date 12 August 2010

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Dear Peter,

I appreciate your bringing to our attention efforts by the College of Organisational Psychologists, the Australian Board of Psychology, and others to promote sound testing practices in Australia. I welcome this opportunity to discuss lessons learned by the International Test Commission (ITC) and ways the ITC is promoting sound testing practices.

The ITC is an association of national psychological associations, test commissions, publishers, other organizations, and individual members committed to promoting effective testing and assessment policies and the proper development, evaluation, and uses of educational and psychological instruments. Thus, we share your commitment to the promotion of sound testing practices that best serve the public and its various institutions by organisational psychologists and other professionals.

The ITC has a 40-year history of viewing test development and use somewhat broadly in terms of its regional and international scope. Its international scope is broadest in reference to organisational and occupational testing.

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Efforts in Australia and other countries to limit or restrict test use are likely to be over-ridden by 21<sup>st</sup> Century practices that increasingly rely on internet-based and thus internationally-accessible services. In recognition of the international accessibility of testing services, the ITC believes regional and international efforts to develop and promulgate standards and educational efforts will be more effective than reliance only on national efforts.

The ITC also is well aware that many segments of society are responsible for ensuring the proper development and use of tests. These include test companies together with those who author tests, adapt them, educate others, purchase tests, administer and score tests, interpret tests, make use of test data, the institutions in which tests are used, and those who are tested and their family. Their needs and responsibilities should be considered when establishing policies and practices.

The ITC also recognizes attempts to legislate proper test development and use are misplaced, will be less than fruitful, and may invite on-going litigation by those who are unjustly prevented from using testing technology or benefitting from its use.

Modern test development and use began about 100 years ago spearheaded by psychologists. Since then, our professions, especially psychology, have assumed leadership for developing and promulgating technical, practical, and ethical standards for test development and use. Responsibility for these efforts correctly lies in the professions, not legislative halls or courtrooms. We are not aware of any successful efforts to narrowly restrict testing practices through legislation.

Most testing does not occur at the hands of psychologists. This is true in the three areas in which most testing occurs: industrial/organizational, clinical, and educational. Some who provide testing services come from the profession of psychology, some from other professions, while others have no professional association. Thus, although psychology retains primary responsibility for helping to establish and promulgate standards, other professions engaged in test development and use also share this responsibility and often establish and promulgate test standards for their members. Thus, their views also need to be considered when discussing testing practices. Although those who have no professional affiliation have no professional obligation to uphold professional standards, they should be held to the same high standards as those imposed for professionals through education and credentialing.

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Efforts by the ITC to promote its goals have relied on two important methods: the creation and promotion of guidelines as well as education. We believe these professionally-based efforts reflect our responsibility to serve society as well as our professions. We believe these efforts are having an international influence.

Guidelines inform the public and professionals as to desired and expected attitudes and behaviors. The effects of our work are seen in part, when national professional associations adopt ITC guidelines and standards for their members.

Our guidelines also impact the practices of test publishers. Some test developers has established partnerships with the ITC in developing important guidelines. We welcome these mutual efforts. Other publishers have expressed their appreciation for our efforts to establish industry-wide standards in that they help create a common set of industry rules for both the scrupulous and otherwise not so scrupulous companies.

The ITC also has a strong commitment to education, given its belief that education results in the promotion of sound practices. Its educational efforts are seen in its biennial international conferences, its active and visible presence at regional and other international conferences, as well as its journal, *International Journal of Testing*. The ITC's efforts to contribute to scholarship also are seen in the numerous books, refereed journal articles, and chapters from its officers and members. We realize sound testing practices must be based on sound scholarship that is promoted in ways that reach and impact students, teachers, practitioners, the public, and policy makers.

The ITC has begun discussing the possibility of establishing standards for professional preparation and training. Such standards would be prerequisite to our subsequent efforts to establish accreditation standards for graduate psychometric programs. Although we are some years away from this goal, it remains on our agenda.

Thus, efforts in Australia to promote sound testing practices through establishing, promulgating, and enforcing professional standards, education, and accreditation would be consistent with those of the ITC. Such standards should be generic to those engaged in test development and use, not confined to a limited segment of those engaged in these practices.

Additionally, attempts to promote sound testing practices through restricting practices within one segment of a profession or to one profession and not others are likely to be seen as self-serving, inconsistent with the needs of society, inconsistent with 21 Century testing realities, and an invitation to litigation.

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In brief, we believe best practices occur through ensuring the competence of test users through appropriate education and training. Legal restrictions or arbitrary limitations on test use will not have desired outcomes and instead may cause others to question a profession's motives.

I appreciate this opportunity to discuss lessons learned by the ITC and ways we are attempting to promote sound testing practices. Please continue to keep us informed of your important efforts.

Continued best wishes,



Professor John Hattie, President  
Committee

International Test Commission



Professor Tom Oakland, Chair of ITC Policies

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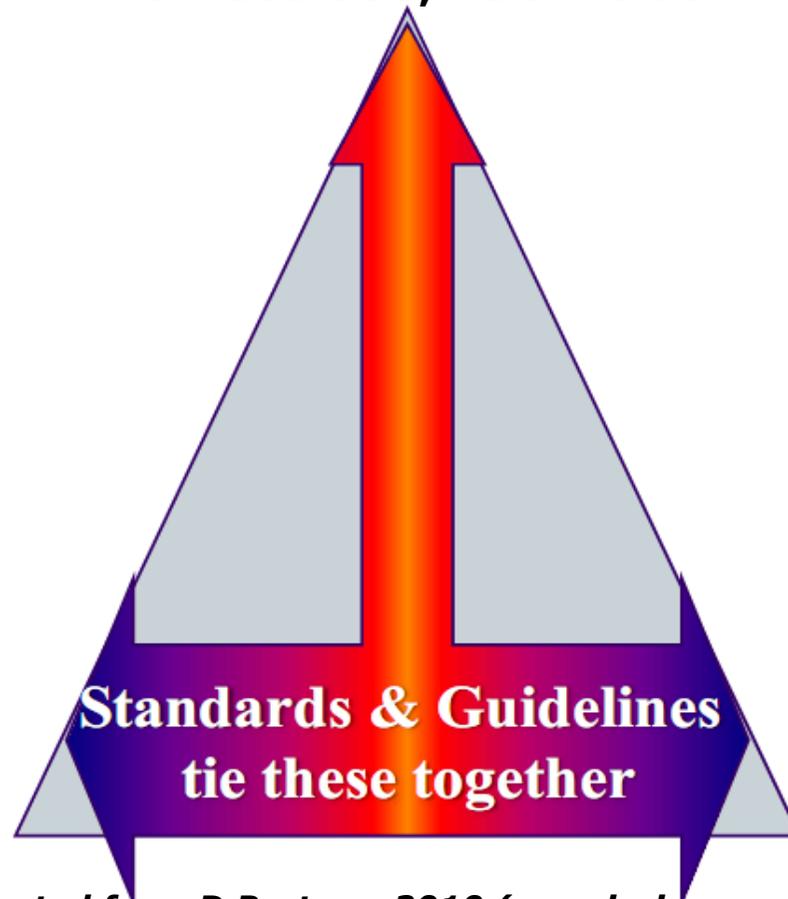
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APPENDIX C

**Standards link process, people and products**

**The Assessment Process:  
ITC Test Use; ISO 10667**

**The test user:  
ITC Test Use;  
BPS Level A/B;  
EFPA-EAWOP  
standards etc**



**The tests(s) used:  
BPS [EFPA] Test  
Reviews;  
COTAN, Buros;  
ITC Test  
Adaptation  
& CBT guidelines**

*Adapted from D Bartram 2010 (permission granted)*