White Paper

Valuing Diversity through Fair Testing

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Foreword

A good selection process is characterised by assessing candidates' qualities that are related to job performance. This implies that all criteria *not* related to job performance are excluded from decision making. This is exactly what characterises fair testing in the selection context: not systematically disadvantaging certain groups, but instead selecting those individuals that have the qualities the job requires.

Why is fair testing important? It helps ensure that applicants from different groups have equal opportunities to be hired. Thus, the pool of potential candidates becomes bigger. Fair testing also contributes to promoting a positive image of the company in the public. This White Paper outlines how fair testing can be beneficial for organisational effectiveness by promoting diversity. Furthermore, it gives a guideline for valuing diversity and a checklist for testing in accordance with the General Equal Treatment Act.

The notion of fair testing

The notion of fair testing has been pursued for several decades. In 1949, Raymond B. Cattell created his Culture Fair Intelligence Test, which was intended to assess intelligence independently of the test taker's language or culture. Since then, there have been attempts to make tests fairer, and test fairness has become an important quality criterion for psychometric tests.

So what is fair testing? A test is fair if it does not systematically disadvantage certain groups. And what does 'not systematically disadvantage certain groups' mean? That all groups achieve the same score?

Not quite. The aim of a test or questionnaire is to differentiate between different persons. Lilienfeld and his colleagues (Lilienfeld, Lynn, Ruscio & Beyerstein, 2010) present a very illustrative image: When physicians look at their records of the average weight of their male and female patients, they will notice that men are heavier on average than women. But this does not mean that the scales used are biased, but that there *is* a difference in weight between men and women. However, this does not mean that a man is always heavier than a woman!

For employment tests, Hartigan and Wigdor (1989) outline two general approaches to test fairness: fairness in predicting job performance from a given test score, and fairness in selection when job performance is given. Both approaches have in common the idea that a test is only fair if it predicts job performance equally well for all subgroups. Therefore, test fairness is closely linked to the purpose a test is used for. Test results are unfair when the test is used for purposes it was originally not intended and validated for (Bortz & Döring, 2006).

Thus, one important aspect of fair testing is assessing only job-relevant characteristics because it is only these aspects that can predict job performance.

Bias, adverse impact, and fairness

There are a number of concepts that are usually mentioned when talking about fairness. These are test bias and adverse impact. Often, the concepts are mixed up, therefore, they will be explained in more detail here.

Bias

Test bias, also labelled predictive bias or differential prediction, occurs when the "slope or intercepts of the regression line relating the predictor to the criterion are different for one group than for another" (Society for Industrial and Organizational Psychology, 2003, p. 23). This means that job performance is predicted differently for different groups. To put it in another way, two persons from two different groups with the same trait score differently on the test or its items, or two persons that score the same on a test are in fact different with respect to the trait measured. For example, tests sometimes overpredict job performance for a certain ethnic group. Thus, the test predicts the performance to be better than it actually is. The reverse is true for underprediction.

Tests can be biased against different ethnic groups, but also against socio-economic groups, men or women, etc. A way of detecting bias is analysis of differential item functioning (DIF). DIF occurs when people from different groups with the same ability or skill have a different probability of endorsing a test item (Embretson & Reise, 2000). Thus, analysis of DIF is a way of detecting test bias and allows for removing the biased items.

Adverse impact

Adverse impact is defined as a "substantially different rate of selection in hiring, promotion, or other employment decision which works to the disadvantage of members of a race, sex, or ethnic group" (Uniform Guidelines on Employee Selection Procedures, 1978). Adverse impact is not a property of a test, but it rather results from employment decisions made on the basis of tests or other selection procedures.

When is a selection rate "substantially different" so that it is considered to have adverse impact? Generally speaking, this is the case when the selection rate for any race, sex, or ethnic group is less than 80 per cent of the rate for the group with the highest rate (so-called Four-Fifths Rule). There may be exceptions, and the rule could indicate adverse impact even when it may not exist.

Interrelation of bias, adverse impact, and fairness

Adverse impact can result from unfair, biased, discriminatory, or unlawful procedures, but also from true differences between two groups on a relevant, job-related characteristic. Thus, when there are in fact differences between groups on job-related characteristics, even a fair selection procedure will create adverse impact. However, in many cases, the adverse impact is created by using selection criteria that are not related to job performance. In these cases, fair testing can significantly contribute to the reduction of adverse impact.

Fairness and bias are not the same. Bias is a psychometric concept, referring to the fact that there are systematic differences in the meaning of test scores associated with group membership. As such, it is objective. Fairness, on the other hand, is more a social concept. There are different attitudes towards what is considered fair (What is the measure? Equality? Performance? Needs?), and according to these ideas, the same outcome can be considered fair or not. However, the concepts of bias and fairness are closely related because it is perceived as unfair if a test overpredicts one group's performance, whereas it underpredicts the other group's performance.

What are the qualities of a process that is more likely to be perceived as fair? The literature in this area has put forward three key constructs: procedural justice, distributive justice, and interactional justice. How is an outcome or decision achieved? How are the outcomes distributed? How do the people involved feel they have been treated?

We can see the relevance of these questions to employment testing. Procedural justice encourages us to consider the testing process by which outcomes or decisions are attained, and the factors that improve perceived fairness such as consistency, accuracy, ethics, and lack of bias (Leventhal, 1980). Distributive justice encourages us to consider the testing process from the perspective of whether outcomes are likely to be seen as equally distributed across stakeholders including different applicant groups as well as the employer (Adams, 1965). Interactional justice encourages us to consider how explanations and communications are framed for decisions made and the outcomes attained by the stakeholders in a process. Colquitt (2001) has shown that positive perceptions of interpersonal justice are more likely when someone is treated with respect (interpersonal justice) and when the explanations given are adequate (informational justice).

The benefits of fair testing

The composition of the workforce in Europe will change dramatically during the coming years. On the one hand, we expect increased mobility of employees between countries as they have the possibility of working in many different countries. Therefore, it is likely that there will be an increasing number of applicants from foreign countries.

On the other hand, we are facing an aging society (demographic change). This means that companies will have to become more flexible with respect to who they recruit – in terms of age, sex, education, nationality, and handicaps, but also in terms of beliefs. Their applicants will become more diverse.

How does fair testing influence recruiting?

1. When companies launch a recruitment process, they have to make sure not to disadvantage potential applicants because of their race, ethnicity, sex, religion or world view, handicaps, age, or sexual identity because otherwise they infringe the law. If a company is sued by an applicant because of adverse impact and is unable to prove that it did not disadvantage an

applicant because of one of the aforementioned reasons, it will be faced with heavy fines. Not disadvantaging certain groups of applicants has another benefit for the company: it enlarges the pool of potential applicants.

2. When applicants feel treated in an unfair manner, they will spread the bad news. This will be disadvantageous for the company's reputation and will therefore make the recruiting of talent even more difficult: there will be fewer and fewer applicants, whereas a company with a good reputation will be able to choose their employees from a larger pool.

3. The best candidate for a job cannot be selected unless job-related and only job-related criteria are used. As soon as other criteria are considered, which is the case when the testing process is not fair, it is likely that the candidate selected does not fit the job as well as another candidate might have fitted, and therefore performance might not be as good.

4. Diverse applicants give a company the opportunity to build up a more diverse staff base. And diversity can, under certain circumstances, be a competitive advantage because it can improve a company's performance and adaptability to changing markets.

It is important to note that fair testing will not reduce adverse impact resulting from true differences in job-related characteristics between the groups tested. However, fair testing will help companies find the best candidate for a vacancy because it prevents them from exerting adverse impact due to unfair, biased, discriminatory, or unlawful procedures. Moreover, if candidates feel treated in a fair manner, they will spread a positive image of the company. Thus, fair testing practices are beneficial in several ways.

Why and to what extent fair testing ensures that no applicant is disadvantaged because of their race, ethnicity, sex, religion or world view, handicaps, age, or sexual identity and why a more diverse workforce is beneficial for a company will be explained in more detail below.

Valuing diversity

"*Valuing diversity means valuing the differences between people and the ways in which those differences can contribute to a richer, more creative and more productive business environment."* (Kandola & Fullerton, 1998)

"Diversity should be understood as the varied perspectives and approaches to work that members of different groups bring" (Thomas & Ely, 1996, p. 2). Thus, a diverse team can comprise members from different ethnical or cultural backgrounds, of different ages, men and women, handicapped and non-handicapped people. But the concept goes even further. It also refers to different educational and social backgrounds or different experience as well as different beliefs, and so on.

Fair testing helps increase diversity within a company, and this in turn is likely to increase organisational effectiveness. Reasons for this increase in organisational effectiveness are, on

the one hand, seen in a better ability of a diverse company to rapidly and successfully adapt to changes in the market. On the other hand, in diverse teams, there is also a wider range of approaches for solving problems, and enhanced creativity and innovation. Thus, a wider range of products can be created, and therefore, a wider clientele of potential customers can be addressed and attracted (Cox, 1991).

Page (2007) defines diversity as "differences in how people see, categorise, understand, and go about improving the world" and claims that "diversity trumps ability" (p. XVI).

However, diversity is not always beneficial. For example, one has to make a difference between disjunctive tasks that by nature can be solved by a single person alone, and conjunctive tasks that have to be solved in a team. Only the performance on the latter benefits from diversity. The reason for this lies, according to Page (2007), in the different perspectives, interpretations, and heuristics members that diverse teams have.

That's the theory. How about practice? Does diversity really lead to improved performance? Williams and O'Reilly (1998) reviewed studies on the topic from the last 40 years and came to the conclusion that diversity with respect to training and experience is beneficial for performance. Laursen, Mahnke and Vejrup-Hansen (2005) found evidence for a curvilinear relationship between educational diversity and performance, meaning that a certain amount of diversity is beneficial for performance, whereas when teams become too diverse, the costs of diversity are higher than its benefits. The costs are – and this is also what Williams and O'Reilly found in their review – conflicts and problems in communication, along with a lower group satisfaction compared to more homogeneous groups. But the authors also found that a certain amount of diversity is required for being beneficial. So, as they express it, "either pursue educational diversity fully or do not attempt it" (Laursen et al., 2005, p. 16). In sum, many researchers come to the conclusion that diversity with respect to education and experience is beneficial in terms of innovation.

If this is the case, what needs to be done in order to make full use of the advantages diversity brings? According to Thomas and Ely (1996), it is not enough to just recruit a diverse workforce or to develop specific plans for presumably disadvantaged groups like, for example, women. Equally, it is not sufficient to just assign them tasks that match their skills and abilities. To really profit from diversity, it is, according to the authors, necessary to give employees the opportunity to share their experience and learn from each other.

Why fair testing enhances diversity

Apparently diversity is something that under certain circumstances – when tasks fulfil certain properties, when there is the right amount of diversity, and when the company culture fulfils certain requirements – is beneficial for performance. This is why it makes sense to recruit diverse employees. However, is this not contradictory to what is usually practiced in recruiting, selection of the applicants that best match a certain job profile? Does this practice not produce rather homogeneous groups of employees and decreases diversity?

Example 1: A municipality wants to recruit fire fighters. Being a fire fighter is physically demanding, for example when trees toppled by a storm have to be removed or when heavy gear has to be lifted and carried. Therefore, when defining the job requirements, the recruiters decide that the ideal fire fighter, amongst other characteristics, has to be strong. They define that "being strong" means being able to lift 80 kg over one's head. The job is advertised, quite a lot of applications are sent in. As according to statistical data men are on average stronger than women, the recruiters decide to invite only the male applicants for the assessment centre and turn all female applicants down.

This procedure is unfair because for one thing, not all men are stronger than women. During the selection process, it is not the characteristic of being strong that is being assessed. It is the characteristic "being male" versus "being female". A characteristic that is certainly not job-relevant. Furthermore, "being strong" does not necessarily mean "being able to lift 80 kg". There are techniques for moving heavy gear and other objects; therefore it is not necessary that applicants are able to lift 80 kg over their heads.

Finally, the applicants were not assessed with respect to the other job requirements. Fire fighters, according to the O*Net job description, need to have a number of skills and abilities, amongst them active listening and critical thinking as well as multi-limb coordination and static strength. In a selection process that assesses only these qualities, people of both sexes, of different cultural backgrounds, and different world views will have the chance to be offered the job.

Example 2: A company employing technical apprentices usually receives a lot of applications. The company's experience is that for successfully completing their qualification, the apprentices need to have good analytical skills. As generally high school students with good grades in maths and physics have good analytical skills, only applicants with good and very good grades in these two subjects are invited to the assessment centre.

This is another example of an unfair selection process. First, not the characteristic itself (analytical abilities), but another criterion (school grades) that is related to but not identical with the job-relevant criterion is assessed. Second, only one aspect is considered, not *all* job-relevant characteristics. Other aspects like mechanical-technical understanding or practical experience as well as social skills are not considered.

Thus, a fair selection process is one in which

- only job-relevant criteria and
- multiple criteria

are used for shortlisting candidates.

With respect to diversity, many people express reservations when it comes to ability testing by classical IQ tests. Their concern is that using these tests does not promote diversity because they disadvantage certain groups. Indeed, many researchers argue that most tests are culturally biased, meaning that they work differently for people that were socialised differently,

i.e. have different ethnic or social backgrounds (Ford, 2005), while others argue that even though test bias exists, it is small (Reynolds & Ramsay, 2003). It is highly controversial whether culturally unbiased tests can be developed or not. And even if so, an unbiased test is not necessarily fair.

Therefore, it is even more important that test scores constitute only the minimum requirements applicants should fulfil. This means that *not* those that score best on the test are selected and offered the job. The reason for this is a statistical one: correlations, the measures used when predicting job performance from a test result, can only be high if there is a wide range of different test scores. If the sample is, however, range restricted, meaning that only the top scorers are taken into consideration, the predictive power of the test approaches zero.

Practically, this means that a slightly better test result of one applicant compared to the other applicant does not mean that the applicant scoring better is a lot more likely to do well on the job than the applicant scoring slightly worse. Therefore, in a fair selection process, only those definitely not fitting the selection criteria will be opted out, whereas all those who meet the minimum requirements will stay in the process.

Legal aspects

Between 2000 and 2002, the European Union released a number of directives in order to prevent discrimination on the basis of ethnic origin, gender, age, handicap, religion or world view, and sexual orientation in the job context. These directives have been transferred into national laws. Germany, for example, passed the AGG (Allgemeines Gleichbehandlungsgesetz; General Equal Treatment Act) in 2006.

The purpose of the law is to prevent or eliminate discrimination based on race, ethnicity, sex, religion or world view, handicaps, age, or sexual identity. Discrimination in the sense of the Equal Treatment Act takes place when a person is treated unequally to others because one of the above-mentioned reasons. An unequal treatment may exceptionally be allowed if

- existing disadvantages due to race, ethnicity, sex, religion or world view, handicaps, age, or sexual identity are to be prevented or eliminated using suitable and appropriate measures (e.g. introducing quotas for women or handicapped)
- the job has essential and crucial requirements that are not fulfilled by all of the above-mentioned groups (e.g. recruiting a woman as a managing director for a women's organisation or a customer representative with good skills in the language he/she will consult the customers in)
- the employer represents a certain religion or world view and therefore requires its employees to hold the corresponding religion or world view (e.g. recruiting only catholic or protestant doctors for a catholic or protestant hospital, but not cleaning or administrative staff because they are not in contact with the third party the service is delivered to)

- an unequal treatment because of age is objective, appropriate and justified by a legitimate goal (e.g. recruiting preferably applicants of age 52 plus should qualifications be identical, making salary dependent on job tenure, setting a maximum age at which applicants will be recruited because of education the company will have to invest in, or granting employees access to company pension plans at different ages because one group has a physically more demanding job).

Discrimination can be direct or indirect, and it also comprises harassment, sexual harassment, or the directive to disadvantage someone. The discrimination may be by doing something or by abstaining from doing something. The latter is, for example, the case when an employer realises that a female employee is sexually harassed, but does not do anything to improve the situation.

It is important to note that it is not only forbidden for the employer to disadvantage employees based on race, ethnicity, sex, religion or world view, handicaps, age, or sexual identity, but also for colleagues and third parties like for example customers or suppliers.

If an employer does not observe the General Equal Treatment Act, this may have severe consequences in the case the discriminated person proceeds against the employer. The employer may be sentenced to pay compensation.

In order to make sure that a recruitment process does not infringe the mentioned law, litigation support by trained experts is an option.

The 5 factors of fair testing

Kunnan (2004) suggests a framework that "views fairness in terms of the whole system of a testing practice, not just the test itself" (p. 37). He integrates multiple facets into his framework:

- **Accuracy:** A test has to be representative of items, tasks, or topics (content validity) as well as of the construct or underlying trait it measures (construct validity). It also needs to predict the criterion it is meant to predict (criterion validity), and needs to be reliable (reliability).
- **Equality:** The test must not systematically disadvantage certain groups. The content of the test must not be offensive towards certain groups in terms of language or content and must not penalise certain groups of test takers because of their background. Furthermore, differences between different groups of test takers must be examined and considered when setting standards.
- **Accessibility:** Groups of test takers must not be disadvantaged in their access to the test. This comprises the opportunity to prepare for the test and familiarise with the procedure and equipment, to get access to the location the test is administered in, and to financially

afford the test. Furthermore, accommodations for test takers with challenges (e.g. dyslexia, ADHD, visual and motoric handicaps) must be made.

- **Practicability:** For supervised tests, physical conditions, for example light and temperature at the location the test is administered in, must be appropriate. Furthermore, test taking conditions must be uniform and secure for all test takers. Unsupervised tests are to be designed in such a way that differences for example in the quality of the computer display or the software installed on the computer don't impact the results.
- **Reversibility:** The test results must have an impact on instructional practices, but there must also be the opportunity for the test takers to proceed against detrimental social effects of the test, for example by re-scoring of the test or by legal remedies.

Guideline: How to profit from diversity

The following guidelines may help companies create an atmosphere that enables valuing diversity from which they can profit (recommendations according to Thomas & Ely, 1996):

- **Leadership:** Make clear to leaders that there are different perspectives and approaches to work. Point out the advantages so that they value the differences, but are also aware of the challenges and possible problems.
- **Organisational culture:** Create a culture that is open and appreciative of differences. This will encourage employees to contribute their strengths to achieve the company's goal.
  - Have high expectations of all your employees instead of expecting more from one and less from the other employee – but do not expect the same from every employee.
  - Stimulate personal development; adapt the job profiles to those doing the job as far as possible.
  - Make employees feel valued the way they are.
- **Mission:** Clearly articulate the company's mission and make sure it is widely understood.
- **Structures:** Establish egalitarian, non-bureaucratic structures.

Checklist: Conformity to the German General Equal Treatment Act

The following checklist may be used when implementing a selection process. The user can go through the checklist item by item and tick ☑ all requirements the process already fulfils and thus get an overview of what still has to be taken care of (recommendations according to Steinkühler, 2007):

- **Selection process:**
  - ☐ Prepare a job description based on explicit selection criteria (education, qualification, experience, personal characteristics, etc.).
  - ☐ During the selection process, find out to what extent the candidates fulfil these and only these criteria. Avoid gathering information that goes beyond the question whether or not applicants match the job profile.
- **Documentation of selection process:**
  - ☐ Document the criteria you used for personnel selection.
  - ☐ Document the reasons you gave for rejecting applicants.
- **Job advertisements:** Formulate them in such a way that you do not discriminate potential applicants due to their race, ethnicity, sex, religion or world view, handicaps, age, or sexual identity. This applies not only to newspaper adverts or on Internet postings, but also for example to announcements in the company intranet or on the company blackboard.
  - ☐ Use a gender-neutral job title.
  - ☐ In the job description, use male and female personal pronouns (he/she...) or formulate the whole text gender-neutrally.
  - ☐ Avoid using decorating photos because they may be discriminating due to the fact that only or mostly individuals of one gender or ethnicity are depicted.
  - ☐ When language requirements are mentioned, be sure that they are really relevant for the job. Otherwise do not mention them.
  - ☐ Only mention a certain religious affinity or world view if you are an organisation pursuing ideological aims.
  - ☐ Avoid descriptions of the job, job requirements or recruiting company that may discriminate against certain groups because of their sex, age, or handicaps.
- **Job interview and assessment centre:**
  - ☐ Use standardised or partly standardised interview guidelines with which you only gather information concerning your pre-defined selection criteria.
  - ☐ Use standardised exercises.
  - ☐ Document the interview.
  - ☐ If possible, have two individuals conduct the interview with the applicant.
  - ☐ Avoid questions concerning the following topics (unless they are relevant for the job): handicaps, pregnancy, sex / sexual identity, religious beliefs / world view, age, race / ethnicity.

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- **Recruiters:**
  - ☐ Educate them with respect to the Equal Treatment Act and its implications for personnel selection.
  - ☐ Train them in the use of the materials used during the selection process (tests, questionnaires, interview guidelines) and make the selection criteria transparent to them.
  - ☐ Point out that during the selection process, they must not ask any questions that go beyond the pre-defined selection criteria.
- **Negative reply:**
  - ☐ In a letter of refusal, give reasons for the rejection that are purely based on the job requirements.
  - ☐ Make a decision on who will give information to applicants calling and asking for reasons for the refusal.
  - ☐ Make sure everyone who will answer these questions gives the same information.
- ***cut-e*'s recommendations specifically for online testing:**
  - ☐ Formulate online forms neutrally and avoid forcing the applicant to indicate sex, ethnicity, or other relevant criteria.
  - ☐ Make sure all contents are accessible and barrier-free.
  - ☐ Prior to the test, give test takers the opportunity to find out whether they need assistance when taking the test.
  - ☐ Give those who need assistance the opportunity to talk to a person who is trained on the subject so that he or she can arrange the accommodations necessary for the candidate.
  - ☐ Make arrangements for certain challenges (e.g. visually impaired people).
  - ☐ Analyse if there are significant differences in test performance between the different groups protected by the Equal Treatment Act. If so, calculate separate norms for the groups.
  - ☐ Use tests that are tailored to different educational backgrounds with respect to the language used and complexity (but of course use one and the same test for all applicants applying for one job).
  - ☐ If possible, give test takers the opportunity to take the test in their mother tongue. If this is not possible, it is recommended to check in advance whether they speak the language well enough to take the test in a foreign language.
  - ☐ When comparing those who have taken the test in a foreign language to those who have taken it in their mother tongue, analyse whether there are significant differences between the groups.
  - ☐ Give all test takers the opportunity to familiarise themselves with the material and try some example items as often as they want.
  - ☐ Make sure the software required for taking the test is free of charge or can be delivered free of charge to the test takers.
  - ☐ Give equal opportunities to all test takers of one group in that they all take the same test with the same examples under the same conditions.
  - ☐ In unsupervised settings, make sure test takers cannot cheat (for example by using an item generator that creates a new test each time test takers log onto it).

About the authors

Katharina Lochner is a Senior Consultant with *cut-e*, Hamburg, Germany. Her areas of expertise are construction and evaluation of online based psychometric tests and questionnaires, designing and implementing assessment centres and interviews, and giving online careers advice. She is currently working on her extra occupational doctoral dissertation on the subject of Positive Psychology. She holds a degree in Work and Organisational Psychology from RWTH Aachen University, where she worked as a student assistant with Professors Lutz F. Hornke and Martin Kersting. Her diploma thesis was on the topic of Leadership Charisma in young adults. After finishing university, she worked as a Human Resources Consultant with ITB Consulting in Bonn, Germany. She was the project leader of a project for designing and implementing an aptitude test for international students intending to study in Germany. Further areas of responsibility were design and implementation of assessment centres and interviews as well as construction and evaluation of other aptitude tests. After spending a couple of months in Australia and being self-employed for almost two years in the area of test construction and evaluation and assessment centre design, she started working with *cut-e* in January 2010.

Dr. Achim Preuss has a degree in psychology and doctorate in applied computing science. After three years as an assistant professor for business psychology at the University of Jena, he spent several years doing freelance consultancy and programming. During his career in business psychology and applied computing science, Achim has, since 1989, run successful HR consultancy and IT development projects for companies like Beiersdorf, Credit Suisse, DaimlerChrysler, L'Oréal, 3M, and Siemens. His main areas of expertise are job analysis, knowledge engineering, and e-HR with bespoke Online Assessment and development solutions. Over the years, he has published a number of articles on knowledge engineering, prediction methodologies and e-HR. In 1996 he joined the SHL Group plc. In his last position with SHL, he was the European Director of Product Development & IT Services. In October 2002 he founded – together with Andreas Lohff – the *cut-e* group. At *cut-e*, Achim is responsible for IT systems and product development, infrastructure and the technology partner net-work. He also runs major Online Assessment projects for international clients.

cut-e is the world leader in the design and implementation of online tests and questionnaires for use in recruitment, selection and development of people in the business world. *cut-e* assesses over 2 million people per year in over 70 countries and 25 languages. *cut-e* combines psychometrics, innovative technology and related consultancy services, with an understanding of business issues, to provide personnel and financial benefits for people, companies and organisations.

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