



SIXTH  
EDITION

# PERSONNEL SELECTION

Adding Value Through People – A Changing Picture

**MARK COOK**

WILEY Blackwell

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# Personnel Selection

## Adding Value Through People – A Changing Picture

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Mark Cook

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## Preface to the sixth edition

Every chapter of this sixth edition has been revised to incorporate new research and new ideas, so the amount of change in each chapter gives an indication of much new research has been reported in each area. The chapters on personality and assessment centres have needed the most revision. In order to keep the book within a manageable and affordable length a lot of older material has had to be removed, but I have tried to keep some historically important material. [Chapter 11](#) covers a new topic, the contribution of social networking sites to selection. Two chapters have needed much less revision. One is [Chapter 9](#), on biodata, where conventional paper and pencil measures may have been supplanted by interactive equivalents, which, however, do not seem to have been researched much, if at all. The other is [Chapter 5](#), on the letter of reference, which has never been researched adequately, despite being so widely used. Every chapter has been rewritten even where there is not all that much new research to describe.

Established truths, or beliefs, continue to be questioned. Issues formerly described as finally settled and not needing any further discussion have been reopened, notably differential validity (whether the correlation between test and work performance might be different for different sections of the population, most particularly for white and non-white Americans). Another ‘closed’ issue that has been reopened is the importance, or unimportance, of specific abilities compared with general mental ability. There certainly seems to be a trend for things that were formerly described confidently as *not a problem* to be appearing perhaps to pose a problem after all.

There is growing awareness of how different selection tests correlate, which tends to cast doubt on approaches that emphasize the paramount importance of matching the test to the job. Emphasis on identifying separate aspects of work performance, notably organizational citizenship, counterproductive work behaviour and adaptability, runs in parallel with the suggestion that there might be a tendency for all measures of work performance to be positively correlated, the ‘monolithic’ hypothesis.

To keep the list of references to a reasonable length, references are not necessarily given for points that are not central to selection, e.g. heritability, or personality theory.

The key references sections at the end of each chapter are selected to be accessible, meaning they are written in English, and so far as possible obtainable through PsychInfo or other online systems. This tends to mean journal articles are included, whereas chapters in books are not.

Certain types of material I have generally not included, including simulations of work using students and ‘Monte Carlo’ simulations in which sets of data are generated according to certain rules, then analysed as if they were ‘real’ data. I have always thought these an example of *getting out what you put in*, and not very useful.

One area that might be moving towards becoming important, but also controversial, could be the role of commercial interests in general, and test publishers in particular. To declare my interests in this area, I have been involved in the publication of psychological tests in the past, but am not now.

I would like to thank Swansea University for all their help with library and other facilities, and Karen Howard for her invaluable continuing support.





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## Preface to the first edition

When I first proposed writing this book, I thought it self-evident that personnel selection and productivity are closely linked. Surely an organization that employs poor staff will produce less, or achieve less, than one that finds, keeps and promotes the right people. So it was surprising when several people, including one anonymous reviewer of the original book proposal, challenged my assumption, and argued that there was no demonstrated link between selection and productivity.

Critics are right, up to a point – there has never been an experimental demonstration of the link. The experiment could be performed, but it might prove very expensive. First, create three identical companies. Second allow company A to select its staff by using the best techniques available, require company B to fill its vacancies at random (so long as the staff possess the minimum necessary qualifications), and require company C to employ the people company A identified as least suitable. Third, wait for a year and then see which company is doing best, or – if the results are very clear-cut – which companies are still in business. No such experiment has been performed, although fair employment laws in the USA have caused some organizations to adopt at times personnel policies that are not far removed from the strategy for company B.

Perhaps critics only meant to say that the outline overlooked other more important factors affecting productivity, such as training, management, labour relations, lighting and ventilation, or factors which the organization cannot control such as the state of the economy, technical development, foreign competition, and political interference. Of course all of these affect productivity, but this does not prove that – other things being equal – an organization that selects, keeps and promotes good employees will not produce more, or produce better, than one that does not.

Within-organization factors that affect productivity are dealt with by others writings on industrial/organizational psychology. Factors outside the organization, such as the state of world trade, fall outside the scope of psychology.

*Swansea, 1995*

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# CHAPTER 1

## Old and new selection methods

### *We've always done it this way*

## WHY SELECTION MATTERS

Clark Hull is better known, to psychologists at least, as an animal learning theorist, but very early in his career he wrote a book on aptitude testing (Hull, 1928), and described ratios of output of best to worst performers in a variety of occupations. Hull was the first psychologist to ask how much workers differ in productivity, and he discovered the principle that should be written in letters of fire on every HR manager's office wall: *the best is twice as good as the worst*.

Human resource managers sometimes find they have difficulty convincing colleagues that HR departments also make a major contribution to the organization's success. Because HR departments are neither making things, nor selling things, some colleagues think they do not add any value to the organization. This represents a very narrow approach to how organizations work, which overlooks the fact that an organization's most important asset is its staff. Psychologists have devised techniques for showing how finding and keeping the right staff adds value to the organization. Rational Estimate technique (described in detail in [Chapter 14](#)) estimates how much workers doing the same job vary in the value of their contribution. One 'rule of thumb' this research generated states that *The value of a good employee minus the value of a poor employee is roughly equal to the salary paid for the job*. If the salary for the job in question is £50,000, then a good employee, in the top 15%, is worth £50,000 more each year than one in the bottom 15%. Differences in value of the order of £50,000 per employee mount up across an organization. Hunter and Hunter (1984) generated a couple of examples, for the public sector in the USA.

- A small employer, the Philadelphia police force (5,000 employees), could save \$18 million a year by using psychological tests to select the best.
- A large employer, the US Federal Government (4 million employees), could save \$16 billion a year. Or, to reverse the perspective, the US Federal Government was losing \$16 billion a year, at 1980s prices, by not using tests.

Some critics see a flaw in such calculations. Every company in the country cannot employ the *best*, for example, computer programmers; someone has to employ *the rest*. Good selection cannot increase national productivity, only the productivity of employers that use good selection methods to grab more than their fair share of talent. At present, employers are – largely – free to do precisely that. The rest of this book explains *how*.

## RECRUITMENT

### Traditional methods

[Figure 1.1](#) summarizes the successive stages of recruiting and selecting an academic for a British university. The *advertisement* attracts applicants, who complete and return an *application form*. Some applicants' *references* are taken up; the rest are excluded from further consideration. Applicants (As)

with satisfactory references are shortlisted, and invited for *interview*, after which the post is filled. ~~The employer tries to attract as many As as possible, then pass them through a series of filters, until the number of surviving As equals the number of vacancies.~~

# ADVERTISEMENT

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APPLICANTS

Consider  
further

REFERENCES

Consider  
further

INTERVIEW

Select

Reject

Reject

Reject

## Recruitment sources

There are many ways employers can try to attract applicants: advertisements, agencies – public or private, word of mouth, ‘walk-ins’ (people who come in and ask if there are any vacancies), job fairs and the Internet. Employers should analyse recruiting sources carefully to determine which find good employees who stay with them. Employers also need to check whether their recruitment methods are finding a representative applicant pool, in terms of gender, ethnicity, and disability. Newman and Lyon (2009) investigate targeted recruiting, through the wording of advertisements for job. They suggest that saying the organization is ‘results oriented’ will tend to attract more As high in conscientiousness, and saying the organization is ‘innovative’ will attract more As high in mental ability. Later chapters will describe research showing As high in conscientiousness and mental ability tend to make better employees. Newman and Lyon suggest the right advertisement can attract such applicants, both overall and from minorities, so meeting the twin aims of many employers: good employees *and* a representative workforce.

## Realistic job previews

Any organization can paint a rosy picture of what is really a boring and unpleasant job because they fear no one would apply otherwise. In the USA realistic job previews (RJPs) are widely used to tell applicants what being, for example, a call-centre worker is really like: fast-paced, closely supervised routine to the point of being boring. Earnest, Allen and Landis’s (2011) analysis confirms the results of several earlier reviews that there is a very modest link with reduced turnover, suggesting RJPs may be worth using, given that RJPs cost employers very little whereas turnover costs them a lot. Earnest *et al.* suggest RJPs work by making As see the employer as more honest.

## Informal recruitment

Applicants are sometimes recruited by word of mouth, usually through existing employees. Besides being cheaper, the grapevine finds employees who stay longer (low *turnover*) possibly because they have a clearer idea what the job really involves. Zottoli and Wanous (2000) report informal recruits on average do slightly better work; the difference is small ( $d = 0.08$ ; page 31) but is achieved very cheaply. However, fair employment agencies, for example the (British) Equality and Human Rights Commission, generally frown on informal recruitment; they argue recruiting an all-white workforce’s friends is unfair because it tends to perpetuate an all-white workforce. Weller *et al.* (2009) report data from the German Socio-Economic Panel Study, nearly 3,000 people, representative of the whole German working population, tracked over five years. Weller *et al.* confirm that informal recruitment results in lower turnover: more employees recruited through agencies or advertisement leave in the first two years, and leave sooner, departures peaking at 9 months compared with 17 months for employees recruited through informal contacts.

## New technology and recruitment

Advertising, making applications, sifting applications and even assessment can now be carried out electronically, which can make the whole process far quicker. People even talk of making ‘same-day offers’. More and more jobs are advertised on the Internet, through the employer’s own website or through numerous recruitment sites. People seeking jobs can post their details on websites for

potential employers to evaluate, which gives the job seeker an opportunity that did not exist before. Most employers now use electronic application systems, eliminating the conventional paper application form. Internet recruitment can greatly increase the number of As, which is good for the employer if it broadens the field of high-calibre As, but it does also create work sorting through a mountain of applications.

## APPLICATION SIFTING

The role of the application form (AF), or its new technology equivalent, is to act as first filter, choosing a relatively small number of applications to process further, called *sifting*. Sifting can take up a lot of time in HR departments so any way of speeding it up will be very valuable, so long as it is fair and accurate. Research suggests sifting is not always done very effectively. Machwirth, Schuler and Moser (1996) used *policy capturing* analysis, which works back from the decisions HR make about a set of applications to infer how HR decides. Machwirth *et al.* showed what HR *do* often differ from what they *say*. Managers said they sifted on the basis of proven ability and previously achieved position, but in practice rejected applicants because the application looked untidy or badly written. McKinney *et al.* (2003) analysed how US campus recruiters used grade point average (GPA; college course marks) to select for interview. Some chose students with high marks, which is the logical use of the information, given that GPA does predict work performance to some extent, and that it is linked to mental ability, which also predicts work performance. A second large group ignored GPA altogether. A third group selected for lower GPA, screening out any As with high grades, which does not seem a good way to sift, given the link between work performance and mental ability. The choice of strategy seemed essentially idiosyncratic, and not linked to type of job or employer.

### Accuracy and honesty

Numerous surveys report that alarming percentages of AFs, résumés and CVs contain information that is inaccurate, or even false. These surveys often seem to have a 'self-serving' element, being reported by organizations that offer to verify information supplied by As; not much independent research has been reported. Goldstein (1971) found many applicants for nursing vacancies exaggerated both previous experience and salary. More seriously, a quarter gave a reason for leaving that their previous employer did not agree with, and 17% listed as their last employer someone who denied ever having employed them. McDaniel, Douglas, and Snell (1997) surveyed marketing, accounting, management and computing professionals, and found that 25% to 33% admitted misrepresenting their experience or skills, inflating their salary, or suppressing damaging information, such as being sacked. Keenan (1997) asked British graduates which answers on their application forms they had 'made up ... to please the recruiter'. Hardly any admitted to giving false information about their degree, but most (73%) admitted they were not honest about their reasons for choosing that employer, and 40% felt no obligation to be honest about their hobbies and interests. Electronic media, such as the Internet, do not bypass these problems. It is just as easy to lie through a keyboard as it is on paper or in person.

## RESEARCH AGENDA

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- The accuracy of CV and application form information.
- What sort of information is wrongly reported.
- What sort of people report false information.
- Why people report wrong information.
- Whether the amount of incorrect information is increasing.
- The role of careers advice, coaching, self-help books and websites.

## Fairness and sifting

Equal opportunities (EO) agencies in the USA have produced long lists of questions that application forms should not ask for one reason or another. Some are obvious: ethnicity, gender, and disability (because the law forbids discrimination in all three). Others are less obvious: for example AFs should not ask about driving offences, arrests or military discharge, because some minorities have higher rates of these, so the question may create indirect discrimination. Questions about availability over holidays or weekends may discourage some religious minorities. A succession of surveys (reviewed by Kethley & Terpstra, 2005) have consistently shown that most US employers seem unaware of, or unconcerned by, this guidance and continue to ask questions the agencies say they should avoid. Kethley and Terpstra review 312 US Federal cases involving AFs, and find complaints centred on sex (28%), age (25%), and race (12%). Some questions listed as ‘inadvisable’ – military discharge, marital status, arrest – have never been the subject of a court case. Internet recruitment and selection could raise another set of ‘fairness’ issues, because not everyone has access to the Internet. In 2014 a UK government-run recruitment system caused some embarrassment – to itself and the government – by advertising vacancies as suitable for ‘recent graduates’, alleged to be a code word for ‘young’.

## Bias in sifting

Many studies have used the *paper applicant* method, which prepares sets of equally suitable As who differ in one key feature – gender, age, having a beard, etc. – then has HR staff rate their suitability. This is an easy type of research to do, and one that usually ‘gets results’, by finding evidence of bias:

- Davison and Burke (2000) reviewed 49 studies of gender bias, and found both male and female sifters biased against female As. The less job information is given, the greater the bias.
- Ding and Stillman (2005) reported New Zealand data showing overweight female As tend to be sifted out.
- Correll, Benard and Paik (2007) find women with children tend to be sifted out, but men with children are not, and may even be favoured.

Paper applicant research has a flaw, however: the sifters know they are being scrutinized by psychologists, so may be on their best behaviour. Also they are not really hiring As, and will not have to work with the people they ‘select’.

Research on sifting in the USA had reached the reassuring conclusion that it seemed free of racial bias, but a study by Bertrand and Mullainathan (2004) suggested there may be a problem after all.

They used a different approach, called the *audit* technique. They sent their 'paper applicants' to real employers, applying for real jobs, and counted how many were shortlisted for interview. Choice of first name identified A as white or African American. (Americans will assume 'Brad' and 'Carrie' are white, while 'Aisha' and 'Leroy' are African American). For every 10 'white' As called for interview there were only 6.7 'African Americans'; African Americans were being sifted out by ethnicity. Bertrand and Mullainathan could argue their data show what is really happening in the real US job market, which justifies the slightly unethical practice of sending employers fake job applications. The International Labour Organization seems to approve, for it publishes a manual on how to conduct 'natural experiments' to test for discrimination. Some research, described in [Chapter 4](#), takes this method a step further, by accepting invitations to interview, and noting how the interview proceeds. The audit method is in one respect even easier than the paper person method, because HR do not have to agree to participate. Hoque and Noon (1999) wrote to British employers enquiring about possible vacancies, not applying for a specific job, calling themselves 'Evans', implying a white person, or 'Patel', implying a South Asian person. 'Evans' got on average slightly longer and more helpful replies. McGinnity and Lunn (2011) find Irish applicants in Ireland twice as likely as African, Asian or German applicants to be interviewed. McGinnity and Lunn note the effect seemed stronger than found elsewhere and suggest this may reflect the low number of non-Irish people in Ireland, and a strong feeling of national identity. The data were collected between March and September 2008, just before the financial crisis that started the recession; a replication today would be interesting. In the Netherlands, applicants with Arab-sounding names are four times less likely to be called back by the employer (Derous, Ryan & Nguyen, 2012). Agerström *et al.* (2012) get the same result in Sweden. It is sometimes argued that providing more information about people will avoid 'snap' judgements based on apparent race or nationality, but Agerström *et al.* find that providing information about Erik's coldness and lack of commitment or Hassan's warmth and high commitment did not prevent discrimination. Research has widened to include other possibly discriminated-against classes of applicant.

## **Social class**

Jackson (2009) confirms the continuing importance of social class in Britain. Applicants with high-status names (Charles Bartle-Jones vs Gary Rodgers) or with high-status pastimes (polo vs darts), or who have been to public (i.e. private) rather than state schools get (slightly) more favourable responses from employers.

## **Pregnancy**

Morgan *et al.* (2013) list four elements of some US employers' perception of pregnant women as job applicants: lower competence, lack of commitment, inflexibility, and as needing 'accommodation' (changes in working conditions or hours etc.). Morgan *et al.* employ a variant of the 'audit' approach in which women go into a department store and ask if it has any jobs, and to complete an application form. Sometimes they wear a pregnancy prosthesis that makes them look about five months pregnant and they are provided with four different scripts to counter one of the four stereotypes listed above: for example, 'I have the help I need so I can work whenever you need me'. The scripts had some effect in reducing discrimination.

## **Age**

Ng and Feldman (2012) list six common stereotypes of older workers: that they are less motivated,



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