TERESA CARLA OLIVEIRA

RETHINKING INTERVIEWING AND PERSONNEL SELECTION

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Preface

Even in an era of high unemployment, people still are being interviewed for a job, or for a promotion, or for a skill profile. Normative selection theory tells managers how they should do it.

One of the main claims of the theory, on which its case is strong, is that the selection process should be structured from pre-selection screening through decision-making. Though there is merit in this, there is less in its claim that interviewing also should be structured throughout by asking candidates the same questions in the same way and that interviewers should avoid sensing, feeling and intuition.

There is evidence that the conscious correlation and ranking of the broad range of explicit criteria that normative theory recommends not only is difficult but impossible. Cognitive psychology and neural research indicate both that intuition may be crucial for a 'final integrating judgement' on candidates and that sensing and feeling are integral to any cognition.

The distinction between subjective and objective knowledge in normative theory is overdrawn in neglecting that perception necessarily is influenced by personal dispositions antecedently derived from both work and life experience and which are not necessarily biased.

By insisting on inference and explicit logic in assessment, the theory also neglects evidence from neural research of referential logic in the interfacing of conscious and unconscious processing and that this is typical of tacit knowledge of what is needed for 'candidate fit' in terms of different operational and organisational roles.

While a structured phase of interviewing may ensure that all candidates know what is implied by a job in terms of operation and organisation fit, managers as selectors may opt for an iterative semi-structured phase of an interview to approximate closer 'cognitive fitting' of the attributes of candidates than is possible by structured methods alone.

For such reasons, *Rethinking Interviewing and Personnel Selection* submits that while there is a strong case for structured selection procedures, structured and semi-structured interviewing fulfil different cognitive roles. It supports this by discourse analysis of semi-structured interviewing identifying tacit knowledge and implicit learning as well analysis of cognitive processing in panel interviewing for personnel selection.

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The privilege of meeting Gerald Edelman enabled me to appreciate the significance of his neural research, as well as his high regard for Bartlett and Wittgenstein. Gerald Wooster, formerly of the Tavistock Institute, introduced me to the work of Matte Blanco and the neural research and insights of Ian McGilchrist. John Boddy has been both a critical and an encouraging editor for articles published in *Selection & Development Review*, and especially supportive in relation to the role of intuition in decision-making and the challenge to Tversky and Kahneman.

Michael Cooley, who has been a collaborator on a parallel four-country project on identifying lifelong learning, has played a key part in the approach of *Rethinking Interviewing and Personnel Selection*. As has my colleague Stuart Holland, who co-directed the lifelong learning project and whose command of philosophy both informed it, and me, which led thereafter to several joint papers that are cited in several of the methodological chapters.

I am grateful to the interviewers and interviewees who cooperated in the four-country study project on identifying tacit knowledge and implicit learning. I thank the managers of the Portuguese public broadcasting corporation who agreed to one-to-one interviews on what criteria were important to them in selection and allowed me to record both the interviews and an entire selection sequence from pre-interview tests to selection decision-making.

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Teresa Carla Oliveira
Coimbra, January 2015

About the Author

Teresa Carla Oliveira teaches and directs programmes in organisational psychology and management in the Faculty of Economics of the University of Coimbra and is a member of its Centre for Health Studies and Research. She took her undergraduate degree in psychology and a master's in educational psychology at Coimbra, before gaining a doctorate in organisational psychology at the University of London. She has researched in the areas of leadership, human resource management, psychological contract and performance management. She is currently researching the scope and limits of government reforms of health services and of the judiciary, as well as the management of small and medium enterprises.

Introduction

Almost everyone is interviewed for a job. In many cases, the process and outcome has influenced what we do, where we work, what we earn, how we are viewed by others and how we regard ourselves. Hence, it is not surprising that there is a vast literature on personnel selection and how to interview.

Normative selection theory tells managers how they should do it. Yet it often does so on the basis of simulations with students. Inversely, managers may have no knowledge of selection theory. Moreover, in the introduction to their *Handbook of Selection and Assessment*, Neil Anderson and Peter Herriot (1997) wrote:

> No other sub-discipline in the organizational sciences has exhibited such a paucity of theoretical perspectives, such a lack of debate over guiding paradigmatic assumptions and such unquestioned conformity to naïve, managerial positivism. (ibid., pp. 12–13)
>
> In criticising the theory as 'bland beyond belief' they also asked whether it is 'a scientific paradigm or psychic prison?' (ibid., p. 14)

After a lifetime in the field, Robert Guion (2010, 2011), a grandmaster of selection theory, recognised the need to fundamentally rethink it. This included his response to calls for a more 'common sense' approach, such as that adopted by Lievens and Chan (2010) including the role of tacit knowledge in selection decision-making. He was also disarmingly self-critical in allowing this would mean that

> I would have to write a whole new book abandoning the central theme in Guion (1997) about forming predictive hypotheses. (Guion, 2010, p. 945)

Citing Hammond (1996), Guion further allowed that 'cognition oscillates between analysis and intuition' (Guion, 2011, p. 415). Under the striking heading of 'The Irrelevance of Significance Testing', and citing Abelson (1995) and Klein and Zedeck (2004) in support, he observed of such testing:

> Mostly, it has little relevance, if any . . . and can even be misleading. The ritual has become so encrusted with false implications that a hard look at the subject has long been needed. (Guion, 2011, p. 255)

He also observed that

> we need to be aware, in practice, in theory development, and in reading this book, that alternative approaches are likely to be on the horizon. (ibid., p. 120)

Rethinking Interviewing and Personnel Selection follows through Guion's (2011) case for such alternative approaches and submits that the cognitive basis of mainstream selection theory is constrained by a presumption that only explicit criteria are rational. It also follows Robertson (1994) in suggesting that conscious correlation of the wide range of criteria in normative theory may be not only difficult, but impossible.

It draws on *Gestalt* psychology in showing that there can be different perceptions of the same phenomenon and cites findings from neuroimaging that conscious focus on particulars, such as that advocated in normative selection theory, may displace more integrative insight and understanding.

The book relates this to claims dating from a founder of experimental method, David Hume (1739, 1740), through phenomenology (Husserl, 1939) to the later Wittgenstein (1953) and Bourdieu (1984, 1990, 2001) that perception of what one may presume to be 'facts' depends on the values, beliefs and dispositions of the perceiver and that no perception is cognitively neutral, apart from suggesting that, in presuming so, much of normative selection theory is mistaken.

It draws on Piaget's (1962) and Reber's (1989, 1993) concept of a 'cognitive unconscious' and the claim of the mathematician and psychologist Ignacio Matte Blanco (1988) that there is an 'unconscious logic' in cognition which referentially connects current inference with sets-within-sets of meanings acquired from earlier experience. It also supports this case for referential rather than only inferential rationality by recent findings from connectionist theory in cognitive psychology and evidence from neural research.

Such research indicates that cognition necessarily interrelates with sensing, feeling and intuition which are disdained by mainstream selection theory. It suggests that intuition is the outcome, fast or slow, of processing by which the brain seeks to gain new insights or to resolve current problems, as with conflicting attributes of a candidate in selection such as someone who is highly self-directed and creative but may not prove to be a good team player.

The book also challenges the as-yet uncritical acceptance of the claims of Nobel laureate Daniel Kahneman that intuition is a heuristic shortcut inferior to premise-based reasoning. It does so in terms of findings from neural research and not least since Kahneman's and his colleague Amos Tversky's claims for such reasoning (Kahneman, 2003) were met in full by the theories of rational expectations and efficient markets that led to the subprime fiasco and the worst financial crisis since 1929 from which the West still has not recovered.

On such a basis, *Rethinking Interviewing and Personnel Selection* counters the claim that intuition is less reliable than premise-dependent reasoning and also suggests that it may be necessary for a final integrating judgement on what otherwise may be conflicting attributes of candidates.

The book follows Guion's (2011) recognition of the relevance of tacit knowledge by examining both it and implicit learning in relation to interviewing. For the call by experts in normative theory for interviewing to be based only on explicit criteria can displace both such knowledge and learning which managers have gained implicitly from experience in differing operational contexts as well as the role that these may play in assessing the attributes of candidates for a job. The book also relates tacit knowledge to Foucault's (1970, 1972, 1975, 1977, 1978, 1982, 2002) concept of knowledge–power and to power dynamics in final candidate selection where it may be found that operational managers implicitly assume and tacitly acquire consent for a dominant criterion domain for their preferred candidates.

The book draws on two main case studies of assessment and selection respectively. The first (A) was a four-country study for the European Commission on developing a methodology for identifying lifelong learning. Based on semi-structured interviewing, this counters claims, such as by Akbar (2003) and Gourlay (2006), that there is no operable methodology for identifying tacit knowledge and reports on surfacing it and implicit learning through discourse and its analysis.

The second case study (B) was of personnel selection by managers in a public broadcasting corporation which based its selection procedures

on those of the BBC. It analysed managers' discourse in panel interviews and post-interview decision-making, as well as one-to-one interviews on what they deemed to be the most important criteria for selection.

Thus, in the one-to-one interviews, it took time for managers to surface the tacit knowledge on which they relied during selection. They were also unwilling to rank criteria explicitly in importance because they stressed that what counted for them in terms of candidate fit varied with different needs in varying operational and organisational contexts.

Yet analysis of their discourse revealed an ordinal logic in what they prioritised, which proved consistent. Similarly, discourse analysis of the managers' semi-structured interviewing and selection decision-making on candidates found that they achieved a high degree of both procedural and distributive justice.

However, this was less in terms of the multiple criteria for consciously avoiding bias in normative selection theory than in terms of a Darwinian 'drive to survive' in that they knew implicitly that if they did not select well, their own jobs could be 'on the line' both in the face of multimedia competition and under pressure from government to outsource the selection process.

The case studies find support for the claims of Herriot (1993, 2003) and Fletcher (1997, 2003) that the selection interview is a social process which may gain from a degree of semi-structured interaction with candidates. The book does not deny the case for structured selection *procedures*. In line with normative selection theory, it recognises that there is a strong case for them, such as pre-screening of candidates, tests of abilities and skills, psychometric assessment of personality and concern to give candidates as much as possible 'the same interview'.

But its findings challenge the claims of normative selection theory that all interviewing should be highly structured. They indicate that what managers need to reconcile 'cognitive fit' of the attributes of candidates with what they explicitly or implicitly know is needed for 'candidate fit' in varying operational and organisational contexts may change at different stages both of a selection process and of a selection interview. They may initially need to satisfy themselves in a structured manner that candidates have the necessary knowledge, abilities and skills for a job but later need a semi-structured phase of an interview to determine whether they have the values, beliefs and personality needed to do it well in such operational and organisational contexts.

What follows summarises some of the main points addressed in the chapters. Chapter 1 sets out 'the normative mission' in selection theory in terms of the need for job fit (e.g. Dipboye, 1996, 1997), as well as the

concern of other theorists to widen criteria to include organisation fit and workgroup fit (e.g. Herriot, 2003; Schneider, 2008), and includes different findings on these from Western and Eastern cultures.

Chapter 2 draws on Wittgenstein's (1953) use of *Gestalt* psychology in that what is seen as, or presumed to be, 'a fact' depends on the perceiver, citing his influence on Thomas Kuhn (1962) in his analysis of the inertial hold of dominant paradigms in science. The chapter also links this to Bartlett's (1995) use of *Gestalt* in his experimental work on knowing and remembering.

Chapter 3 outlines connections between current cognition and preconscious cognitive processing, drawing on philosophy since David Hume (1739, 1740), more recent cognitive psychology confirming this (e.g. Glöckner & Witteman, 2010) and findings from neural research on the different roles of the left and right hemispheres in brain functioning (e.g. McGilchrist, 2009). It suggests that whereas normative theory presumes that interviewing should be inferential (left hemispheric), a cognitive continuum of the kind lately recognized by Guion (2010) draws referentially on what already is preconscious (right hemispheric).

Chapter 4 advances this by also drawing on Piaget's (1962) and Reber's (1989, 1993) concept of a 'cognitive unconscious' as well as the claim of Matte Blanco (1975, 1988) that there is an 'unconscious logic' in the cognitive continuum connecting inference with sets of meanings acquired from earlier experience and that this makes sense of how the mind can cope with multiple criteria in interviewing without suffering inferential overload.

Chapter 5 relates such conceptual frameworks to issues of prediction and verification in selection. Allowing that Popper's (1959) claim that laws or propositions are not empirically verifiable, but may be falsified, it suggests inter alia that if it is found from discourse in interviewing that managers less than consciously rank criteria in the same way in relation to operational and organisational needs, this constitutes an 'implicit verifier' of what counts for them in candidate choice.

Chapter 6 questions why normative selection theory dismisses intuition. Drawing on neural research (Edelman, 1992), it submits that intuition is the outcome of an iterative referential process by which the unconscious mind seeks to resolve issues that inference alone could not. But the chapter also centrally critiques the claims of Daniel Kahneman (2003, 2011) in his distinction of two systems thinking, of which one is fast, intuitive and erratic, and the other premise dependent, slow but reliable.

Chapter 7 assesses whether a successful interview constitutes a psychological contract (Guest, 1998), including whether this implies a fulfilling

experience – enhancing a job, or a career – or is more notable in practice in its breach (Rousseau, 1995) as well as what different expectations there may be from an interview, and thus its role in a world in which, downsizing, outsourcing and delayering, and 'boundaryless' or 'Protean careers', have come to mean shorter-term employment contracts and less job security.

Chapter 8 supports the case of Nonaka and others (Nonaka & Takeuchi, 1995; Ichijo & Nonaka, 2007) that identifying tacit knowledge and implicit learning is feasible and reports findings from interviewing and discourse analysis in a four-country case study which was the outcome of the European Council's recommendation of lifelong learning in the Lisbon Agenda 2000.

Chapter 9 draws together some of the earlier claims concerning the interrelation of conscious inferential and less-than-conscious referential processing. Drawing on Bourdieu's (1984, 1990, 2001) distinction of dispositional and situational logics, it suggests scope for a combination of both structured and semi-structured interviewing rather than claims in normative theory that all interviewing should be highly structured.

Chapter 10 reports on findings supporting this from a study of selection in a European broadcasting corporation including one-to-one interviews with managers on what criteria were important to them in selection. It also reports on discourse analysis of cognitive processes in structured and semi-structured phases of panel interviewing and on the high degree to which procedural and distributive justice may be achieved by semi-structured methods.

Chapter 11 illustrates leadership in selection decision-making in terms of tacit and implicit power dynamics and relates these to the earlier conceptual framework of conscious and unconscious logic, as also to Michel Foucault's (1975, 1982, 2002) concept of powerknowledge. It finds that operational managers implicitly assume and tacitly acquire power in decision-making on candidates.

Chapter 12 draws together main findings from both the conceptual framework and empirical studies in the book. It supports the case for structured selection methods but confirms findings that a combination of structure and semi-structured interviewing enables a closer approximation of 'cognitive fit' and 'candidate fit' and suggests implications for further research to assess this.

1
What Selection Theory Claims

Mainstream selection theory is normative in claiming that an interview should be premised only on overt criteria; that managers as selectors should rely only on inference from candidates' attributes and avoid sensing, feeling or intuition in decision-making. Such theory is the 'highway code' of selection methods. In particular, no interviewer should 'go it alone' and trail 'off road' in semi-structured or unstructured dialogue with candidates that may involve questions not put to all of them in the same way.

A paradigmatic example of this is Robert Dipboye (1996), who has advocated that selectors should (1) focus on knowledge–skills–abilities needed for the job, (2) ask candidates the same questions and use the same rating scales, (3) develop scoring keys for evaluating applicant answers in behavioural terms, (4) use more than one interviewer, (5) eliminate extraneous conversation with the applicant, and (6) explain to candidates that they cannot ask questions.

While Dipboye (1996) nonetheless admitted that the dilemma is how to do this without becoming 'Orwellian' in a quest for standardisation, such theory has a central problem in that its own advocates admit that managers as selectors tend to neglect it. The neglect appears to be so widespread as to suggest that it cannot be due simply to incompetence or lack of training. Concern in normative theory about how managers *should* select tends to displace not only the degree to which they may think and act differently from the theory, but also *why* they do so.

This chapter assesses the scope and limits of normative theory and the long-standing concern of some of its advocates such as Dipboye (1992, 1994, 1996, 1997) with knowledge, abilities and skills for explicitly

defined job fit. Yet, it also suggests that while frequent reference is made to person–organisation fit, there is a need to deconstruct the concept in terms of different operational and organisational contexts and to relate this to what may be different stages of a selection process, with differing explicit or implicit rationales.

It illustrates that there are limits to simulations of selection, often with students, of what criteria are important to attract or retain candidates in organisations as well as that the range of criteria that normative theory recommends that managers as selectors should consciously correlate not only is difficult but may be impossible.

The normative mission

In identifying the interview as the focal point of the selection process, Guion (1965) stressed that it needs to be conducted in as 'constant' a manner as possible for all candidates who should be asked the same questions in, as much as possible, the same way. But he also claimed that 'the responsible interview is not merely another source of data. It has a unique function in that it is where data from various sources, including the interview itself, are integrated' (ibid., p. 39) and that this final 'integrating judgement' should include both explicit and implicit factors.

But normative selection theory rarely has followed Guion's recognition of a distinction between explicit and implicit factors, or that how managers come to selection decisions may combine both conscious and unconscious cognitive processing. Nor has the theory acknowledged that the range of criteria which it advocates that managers should consciously hold in mind may be not only an invitation to inferential overload, but impossible.

For example, as outlined in Box 1.1, a pioneer of structured interviewing, Rodger (1952), combined seven main sets and sixteen subsets of criteria for selection. Munro Fraser (1978) reduced the main sets of criteria to five, but then offered nineteen sub-sets. If there is a five-point scale for ranking each criterion, whether a selector could consciously correlate or integrate these in the manner claimed by Guion (1965) either during an interview or in post-interview evaluation is open to question. Robertson (1994) is blunter in suggesting that this is not only improbable, but impossible since such integration would imply not only hundreds, or thousands, but billions of correlations.

Box 1.1

Inviting inferential overload

Normative selection theory advocates conscious and consciously retained criteria in candidate choice. Thus, an early advocate of the theory, Rodger (1952), identified seven sets and relevant sub-sets of criteria to evaluate applicants:

- *physical make up* – appearance and physical health;
- *attainments* – general education, vocational training and professional qualifications;
- *general intelligence* – overall cognitive ability measured in psychometric tests;
- *special aptitudes* – specific abilities and attainments;
- *interests* – spare-time activities, sports and hobbies;
- *disposition* – motivation, personality and acceptability to others;
- *circumstances* – family life and general way of life.

Munro Fraser (1978) reduced these seven sets to five, each of which also had its own sub-sets:

- *impact on others* – appearance, speech and manner, and health;
- *qualifications and experience* – general education, vocational training and professional training;
- *innate abilities* – verbal, perceptual, numerical, mechanical and spatial;
- *motivation* – level of goals, realism and consistency in following them up;
- *emotional adjustment* – acceptability, sense of responsibility, reliability and potential leadership.

Rodger therefore offered seven main sets and sixteen sub-sets of criteria. Munro Fraser offered five main sets and nineteen sub-sets.

Whether any manager could consciously hold all of these in mind is open to question. For them to rank each on a five- or ten-point scale and then integrate them by the end of an interview not only would invite inferential overload but may be impossible (c.f. Robertson, 1994).

Principles, norms and practice

Besides which, in contrast with the claim of normative selection theory that in principle all interviewing should be highly structured, a range of evidence indicates that semi-structured or unstructured interviews may be the norm in practice (e.g. Robertson & Makin, 1986; Anderson & Shackleton, 1990, 1993; Dipboye, 1992, 1994, 1996, 1997).

In a comprehensive meta-analysis, McDaniel et al. (1994) found that when the criterion was suitability for *training performance*, the validity of structured and unstructured interviews was similar. Yet Herriot (1993, 2003) and Fletcher (1997, 2003) have stressed that the selection interview is a *social* process which may gain from a degree of semi-structured interaction with candidates. This is also consistent with the earlier claim of Bakhtin ([1935] 1981) that open-ended dialogue may give rise to new insights and meanings, which informs the case of Altink et al. (1997) for open-ended discourse rather than only one-sided questioning, assessment and judgement by selectors.

Furthermore, according to Hackman and Oldham's (1980) *Job Characteristic Model*, the interviewer may gain better results by semi-structured procedures for candidate fit in terms of needs for autonomy, variety, sense of purpose and task significance. This suggests that semi-structured, non-consequential or lateral questioning may provoke responses from interviewees which may be more revealing than those within a structured approach, to which we return.

Anderson and Shackleton (1993), like Dipboye (1996), have recommended that selectors should be trained for interviewing so as to rationally gather and process information in order to avoid bias, and then objectively rate the applicant's answers. They define four major responsibilities for the interviewer: (1) evaluate each item of information; (2) allocate it an appropriate weight in decision-making; (3) combine multiple sources of data in order to (4) reach a final accept–reject decision.

They also make five key recommendations in relation to the context and environment of an interview. First, its conduct should combine formality, comfort, tranquillity and courtesy. Second, general documentation is needed in terms of previous examination results and curriculum vitae, the results of a candidate's psychometric tests and references received before the interview. Third, there should be mutual understanding of the aims of the interview. Fourth, this should be matched by structured question generation and hypothesis formulation. Fifth, there should be a follow-up assessment on the validity of predictors.

There is substance in some of this. Managers may be concerned to give information in a structured manner to be able to assure themselves that all candidates grasp what the job means in both operational and organisational terms since they do not want to select and train people who then claim that they did not understand what a job entailed and consider this a breach of psychological contract, which is an issue touched on in this chapter and relevant to some of the main findings from case studies reported later.

Yet whether there can be mutual understanding of the aims of the interview, based on Dipboye's (1996) recommendation that a candidate should not ask questions, is less than clear. Anderson and Shackleton's (1993) first recommendation that an interview should ensure formality, comfort, tranquillity and courtesy also may be misplaced. Selection now is for jobs in less-than-tranquil competitive environments, not only in the private sector, but also in public institutions faced with the prospect of downsizing and outsourcing if they do not perform effectively. This increases pressure on management. It also means that they may be more likely to want to know of candidates who that they can deliver under pressure. In which case one of the best tests and predictors of whether candidates can cope with pressure may be whether they can do so either in a pre-interview test, such as role-play, or a semi-structured phase of an interview.

Such a case is not against structured selection procedures. Pre-interview screening and psychological and other tests before an interview may be vital in informing selectors in final selection decision-making. But to dismiss even a semi-structured phase of an interview may be mistaken, while similar dismissal of allowing feelings to influence candidate choice may displace that these may be integral to any cognition (Holland & Oliveira, 2013); which is elaborated in this and later chapters, and it directly concerns the issue of bias.

Questions on bias

Wareing and Stockdale (1987), Macan and Dipboye (1990) and Anderson and Shackleton (1993) have identified multiple tendencies to bias such as *expectancy* effect, *confirmatory* information-seeking bias, *primacy* effect, *stereotyping* and *prototyping*, *halo* effect, *contrast* and *quota* effects, *negative* information bias, *similar-to-me* effects, *personal* linking bias, *selective* attention, and *attributional* error.

Yet, apart from whether managers as selectors could consciously take all of these biases into account during an interview, there are

several regards in which their cognitive basis is presumptive. As submitted in later chapters, personal dispositions are inevitable in any cognition and there is no judgement that can be free from values and beliefs. With this, there may be the risk, stressed by Ghoshal (2005), that 'bad' management theories are displacing 'good' management practices.

One of the claims of bias such as stereotyping and prototyping is that they are likely to occur when interviewers assume that interviewees should conform to the characteristics of a particular group. Yet according to Bartlett (1932[1995], one of the cognitive psychologists most cited in mainstream selection theory, groups are the basis of *any* interpersonal cognition. Also if a group is the basis of operational efficiency, as recognised in recommendations for more attention to 'group fit' in selection, and cited later in this chapter, group norms and values, including shared tacit knowledge, may be vital for competitive success.

Another claimed source of bias is the influence of negative information on interviewers' decisions. Webster (1964, 1982) has argued that negative information has a greater influence on interviewers' decision-making than positive information. Wright (1974) found that constraints on decision time mean placing a greater reliance on unfavourable information. Dipboye (1989) has found that as little as one unfavourable impression in an interview will lead to a 90 per cent rejection rate.

Yet it may be questioned why negative information should be wrong as a general principle rather than depending on the nature of the information, obtained from whom, and in which context. If, for example, the information from a referee is that 'x' is highly self-confident, fluent and knows the right things to say in an interview but is unwilling to learn from others and a poor team player, why should selectors disregard this as presumptive bias rather than useful information?

There also are cognitive limits to the claim of *primacy* bias when interviewers make decisions on candidates in the first moments of the interview (Webster, 1964). Anderson (1997) has shown that interviewers tend to form intuitive impressions of candidate personality very early and have a high resistance to changing these initial impressions. But rather than assuming that this self-evidently is bias, it may be that intuition itself relates referentially to a range of previous experience and may be well grounded in it, as is submitted in Chapters 2 through 5. It may also be that managers who are experienced in selection intuitively know that they need to guard against initial impressions of a candidate and

seek, if given the chance, to confirm or disconfirm this by less than wholly structured interviewing.

Survival of the fittest

None of the above is to deride, or neglect, the significance of selection literature on bias. For example, there is a strong case that the chair of a selection panel, or a company psychologist, should be well grounded in the selection literature on it and should be able to draw attention to bias in the evaluation of an individual candidate.

Thus the more is known of the theory, as argued by Guion (2011), the better. But the less the chair of an interview panel or a company psychologist needs to demonstrate this, other than occasionally questioning whether a selector may be biased in a judgement, the more effective their drawing on the theory may be in influencing operational managers who otherwise have little time or disposition to consider the relevant literature.

Yet something also is missing from the literature on avoiding bias in that while many managers as selectors never may have read any of it, they need to achieve the 'selection of the fittest' through a drive to survive since otherwise not only their organisation, or operational unit within it, will be thrown into question, but the selection process itself, and consequent training, which is time consuming and costly, will be outsourced to assessment centres whose personnel have little to no experience of what a job actually means in its operational and organisational context.

The term 'survival of the fittest' was not originally Darwin's, but Spencer's, although Darwin adopted it in a later edition of his *Origin of Species* (Darwin, 1869). Yet Darwin himself claimed that natural selection operates through communication as well as through biology and that groups that worked for mutual advantage rather than individual self-interest would be favoured in selection (Darwin, 1869, 1871; Mithen, 1996; Hodgson, 2008).

There therefore may be mutual advantage for both selectors and candidates in following the structured phase of an interview by semi-structured interaction on the lines that Dipboye (1996) disdains but others such as Fletcher (1997) and Herriot (2003) have suggested, especially, if this enables a closer integration by selectors of what they can grasp in cognitive terms or 'cognitive fit' of the attributes of a candidate during an interview and what they know is needed for the job or role fit from the candidate or 'candidate fit'.

Cognitive fit and candidate fit

As Arvey and Campion (1984) have recognised, selection, and especially interviewing, implies perceptions that are part of a cognitive process which depends both on the individual as a perceiver and on context:

> Selecting employees almost always means interviewing them, and the interview is an exercise in person perception. The process of reviewing a candidate's credentials, conducting an interview, evaluating the qualifications of a candidate, and making a decision to hire or not to hire is essentially a perceptual and decision making task within an applied context. (ibid., p. 202)

They also have stressed the need for researchers on interviewing to take more account of the cognitive basis of person perception, including attribution models and implicit personality theory (Arvey & Campion, 1982). This is consistent with a distinction that we suggest between 'cognitive fit' and 'candidate fit' where the former is a process of identifying attributes of a candidate by the selector, while the latter relates to what the selector knows, at varying levels of consciousness, will be needed from candidates, if selected, for operational and person–organisation fit.

Yet reconciling or integrating cognitive fit and candidate fit may be difficult if, as Guion (1965) had recognised, there may be conflicting perceptions of the attributes of candidates. Such as someone who clearly is highly creative and self-directed may not be likely to be prepared to submit to routine or to irregular working hours. Also a simple and dyadic yes-or-no response to whether he or she would do so may not be adequate for a selector to be assured that this not only has been accepted but its implications understood by the candidate. As evidenced by a manager with extensive experience of interviewing who stressed in a one-to-one interview summarised later:

> This seems very obvious, and of course a candidate who wants the job will say 'yes'. But afterwards, forget that I explained this and that he consented, and claim that in demanding weekend or night work I am stealing his time which at best gives rise to tensions and at worst may mean that after training, which is expensive for us, and a probation period in which he has acquired skills, he quits.

The manager who recognised this had not been informed by selection theory such as Schneider's attraction–selection–attrition (ASA) model or

by theory of organisation fit (Schneider, 1983, 1987, 1994, 2001, 2008; Schneider et al., 1995; Smith, 2008). But he 'knew it already', from experience.

In relating his ASA model to criteria for 'fitting', Schneider nonetheless has made claims that do not readily fit with those for bias in normative selection theory, such as that (1) individuals are attracted to organisations whose members they perceive as similar to themselves in terms of values, beliefs and personality; (2) organisations are more likely to select candidates who share these and (3) over time, it is those who do not 'fit' with them who are more likely to quit. Self-similarity therefore may not necessarily be bias rather than a condition of *effective* job, group and organisation fit.

Person–job and person–organisation fit

Judge and Ferris (1992) claim that improving the validity of structured interviews in terms of job fit may be misplaced if the real aim of the interview lies not in selecting the most technically qualified person for the job *but* the individual most likely to fit with the organisation.

Yet meta-analyses of the literature at the turn of the millennium found little concern with organisation fit (Judge et al., 2000), while only recently has there been more attention to group fit (e.g. Herriot, 2003; Anderson et al., 2004; Vogel & Feldman, 2009).

Moreover, although some selection theories have drawn on the concept of organisation fit, only limited empirical research (e.g. Cable & Judge, 1997; Judge et al., 2000) has examined the role of 'fit perceptions' in the context of selection interviewing. Also, there are few studies of how person–organisation fit counts for management in actual selection rather than simulations. For example, Hu et al. (2007) evaluated perceptions of person–job and person–organisation fit in Taiwan and found a higher attraction effect for the latter, but they did so by inviting students to respond to what they allowed was 'a fictitious recruitment web site'.

Furthermore, while Cable and Judge are among the foremost advocates of more attention to person–organisation fit, in examining the influence of fit in selection decisions during interviewing, they used only written surveys completed by interviewers *after* they had selected and have allowed that

> no research has demonstrated that interviewers fit perceptions affect either their hiring recommendations or organisations' hiring decisions. Given the pervasiveness of the interview in selection

> systems . . . the lack of answers to these basic questions is a substantial gap in the literature. (Cable & Judge, 1997, p. 555)

Besides this, little of the research on person–job and person–organisation fit so far is conclusive. For example, a survey-based study by Meyer et al. (2010) into the role of culture in person–organisation fit and employee commitment under conditions of organisational change came to only very provisional conclusions. In the energy company they investigated, a nominally 'rational goal culture', whose implicit logic was raising profitability for shareholders as a driver for change, raised concerns about trust. Meyer et al. then concluded:

> If so, fit/misfit with regard to rational goal culture would play a more important role in determining employees' trust in, and commitment to, the organization. (ibid., p. 471)

Yet they then added

> Although this is merely *retrospective speculation*, researchers in the future might use context factors and mediating mechanisms prospectively to guide the development of more precise hypotheses. In the long term, this will greatly help to enrich P–O fit theory. (ibid., our emphases)

But the long term in the theory of personnel selection is already very long, dating at least since the 1950s with Rodger (1952). Meanwhile, in more than half a century, the world has changed, with the end of Fordist full employment, the challenge of globalisation and pressures for not only outsourcing and downsizing but also for shorter-term employment contracts in the context of what are deemed 'boundaryless careers' (e.g. Reitzle et al., 2009; Rodrigues & Guest, 2010), which means no assured career within an organisation and therefore may mean less concern by selectors with organisation fit.

Other research yields findings that may be significant in themselves yet which a manager as a selector could well 'know already', if at varying levels of consciousness. A case study by Winfred et al. (2006) that assessed person–organisation fit as a predictor of job performance and turnover found that this was qualified in practice by job experience. Unsurprisingly, if people find that a job is not up to their expectations, this generates negative views of an organisation.

Hoffman and Woehr (2006) undertook a meta-analytic review of the relationship between person–organisation fit and other criteria such

as job performance, organisational citizenship and turnover, but their results indicated that perceptions of person–organisation fit were only weakly to moderately related to it.

Resick et al. (2007) found that perception of person–organisation fit may be strong even when perception of job fit is low, which Oliveira (2007) found from semi-structured interviews with branch and client managers in a major financial institution. In such cases, the job may be routine, unfulfilling and even boring, but the prestige of the organisation and the security offered by it may offer compensation for this and employees stay rather than quit.

This also is in line with findings by Vogel and Feldman (2009) from employees and their supervisors, which have suggested that research on person–organisation fit and person–job fit needs to examine not only person–group fit but also person–vocation fit. But this in turn depends on whether the organisation can offer a vocation rather than only a job, which with downsizing, re-engineering and shorter-term contracts it may not.

Some innovative research has sought to close the gap in terms of cognition and person–job and person–organisation fit. Thus De Cooman et al. (2009) have assessed person–organisation fit in relation to Schneider's (1983, 1987, 1994, 2001, 2008) attraction–selection–attrition theory. But they found that both positive socialisation and negative attrition mechanisms were present at the same time, or, in other words, that there was no direct 'fit' rather than ambivalence.

Social and cultural differences

There also are other dimensions of who fits, or does not fit, where and how in terms of social class, ethnicity and gender. In a study of working teams of a service department of a company located in Northeastern United States, Elfenbein and O'Reilly (2007) found that gender and race influenced both the degree of perception of organisation fit, or misfit, and turnover intentions.

International comparisons also reveal major cultural differences. For example, in an analysis of public sector employees in China, Liu et al. (2010) found that person–organisation fit had a significantly positive effect on job satisfaction and a negative effect on turnover intention but found that this was related to age and to a seniority system of promotion after a given number of years. But they also observed that while data on person–organisation can fit several models well, there may not be a single best one.

The cultural differences between person–job and person–organisation fit and their relation to selection in Japan has been stressed by Sato (1997). Thus, according to Sato, high school or university graduates rarely have significant work experience and the jobs they will be assigned are often unrelated to the subject they have so far studied (ibid.). Therefore, Japanese firms place less emphasis on applicant knowledge, abilities and skills in hiring graduates than on personality.

In support of the concept of organisation fit, Sekiguchi has found that hiring practice in Japan typically means selecting a person who fits the organisation, while hiring practice in the United States means finding a person who fits the job (Sekiguchi, 2004a). Yet Sekiguchi (2004b) also allows that too little is known of the role of organisation fit in actual selection interviewing rather than in pre-screening of candidates and observes that this may be since managers as selectors may be reluctant to reveal this in case they are open to challenge on whom they select.

Ramesh and Gelfand (2010) have examined turnover in an individualist country culture (the United States) and a collectivist country culture (India). Using cross-cultural data from call centres, they found that dissatisfaction with person–job fit was a significant predictor of turnover in the United States, whereas person–organisation fit, organisation links and community links were significant predictors of lower turnover in India, which may also relate to the jobs that are or are not on offer.

Thus there clearly are variations in the significance of person–organisation fit depending on different cultural and organisational contexts and also different expectations of job security. Moreover, while person–organisation fit would enlarge the criterion domain in selection beyond person–job fit, Schneider (1987) has expressed reservations on it with concern that this could lead to organisational cloning, a lack of individuality and repression of creativity. A follow-up empirical paper (Schneider et al., 1998) submitted that attraction, selection and socialisation processes may reduce the diversity of a workforce, which echoes Whyte's (1956) earlier analysis of corporate conformity in *The Organization Man*.

Implications

These various studies indicate not only that the near-exclusive concern of an advocate such as Dipboye (1996) with person–job fit is constrained but also that paralleling it only by a criterion such as person–organisation fit is not definitive. Notably, from a meta-analysis of studies of 'fitting', Kristof-Brown et al. (2005, p. 326) found that 'as the business world

continues to require managers to do more with less . . . multiple types of fit need to be developed and validated'.

However, while several of the studies just cited explored the concept of person–organisation fit, they do not answer a series of questions with which the following chapters are concerned such as:

1 What conscious – or less-than-conscious – processes may be involved in managers seeking multiple dimensions of cognitive fit and candidate fit?
2 Are there different roles in structured and semi-structured phases of interviewing, which involve different explicit or implicit rationalities?
3 Can these be identified from discourse analysis either from one-to-one interviews with managers who have experience of selection or from discourse in actual panel interviewing?
4 If there are different rationalities, how do they relate to different operational and organisational needs and to what may be structured and semi-structured phases in interviewing?
5 If such different rationalities relate to different operational or organisational roles, how are they resolved in post-interview evaluation of candidates and selection decision-making?

In seeking to address such questions, what follows is evidence based from discourse analysis of one-to-one interviews with managers on what criteria are important for them in selection, and panel interviews and post-interview decision-making. The analysis also relates this evidence to cognitive psychology, neural research and questions of what may or may not be verification.

2
Who Knows for a Fact?

One of the claims for modern social science is that it infers from facts. Some of this stems from the positivism of Auguste Comte, who argued that there were three stages in the evolution of knowledge – fictions, as in myths; metaphysics, as in speculative philosophy; and scientific theories, based on evidence. Yet Comte qualified claims to know something 'for a fact' and warned against assuming to do so rather than allowing for a high degree of scepticism. He submitted that the proper function of intellect was the service of society, was critical of mathematical modelling, claiming that algebra could as readily usurp rather than enhance understanding, and declared that if a theorem was not approached in the same way as a poem, it could deprive us of our humanity (Comte, 1848, 1865; Muglioni, 1996).

This chapter relates the question of what is 'a fact' to what we mean by knowledge, and to perception, as in Wittgenstein's (1953) use of *Gestalt* psychology, in that what is seen in 'the fact' of an image can vary even for the same perceiver. It also relates to Wittgenstein's influence on Thomas Kuhn (1962) in his analysis of the inertial hold of dominant paradigms in science and to the role of tacit knowledge rather than focal attention, including the claims of Polanyi (1962) that the latter can displace rather than enhance understanding.

The chapter further links this to Bartlett's (1932 [1995]) use of *Gestalt* in his experimental work on cognition and recognition, which is familiar in selection theory through his concept of *schema*. It also relates this to connections between conscious and unconscious processing in the concept of *scripts* before analysing the relevance of tacit knowledge to personnel selection, which Guion (2010) recognised he had neglected in his earlier work. But the chapter submits that familiarity with Bartlett's concept of *schema* has tended to displace both his stress that feelings

are integral to cognition and his claim that no perception can be cognitively neutral. Thus while normative selection theory tends to assume that selectors should be passive receivers of sense data and neutrally process 'facts', Bartlett's findings contest this.

Understanding in context

Since the publication of his *Philosophical Investigations* in 1953, Ludwig Wittgenstein's significance for method and meaning has generated wide attention across a range of disciplines, such as philosophy, linguistics, psychology and educational psychology, sociology and law. He also influenced the economics of Keynes' *General Theory* by encouraging him to take a psychological approach to individual and market behaviour rather than a rule-based axiomatic approach that had been typical of Wittgenstein's earlier work (Wittgenstein, 1922; Keynes, 1936; Assoun, 1988; Budd, 1989; Sass, 1994; Davis, 1996; Sluga, 1999; Summerfield, 1999; Broadfoot, 2000; Patterson, 2004; Oliveira & Holland, 2012; Holland & Oliveira, 2013).

Wittgenstein was not the least interested either in personnel selection or in management. But there are several claims in his later philosophy and philosophy of psychology (Wittgenstein, 1953, 1958, 1980, 1982) which are relevant to a critique of normative selection theory.

- There is no universal meaning in language, propositions or non-verbal behaviour.
- The meaning of words depends on their use, and their use depends on their context. It is meanings in context that need to be understood.
- The best we manage in terms of knowledge may only approximate understanding rather than gain certainty.
- We may either consciously or unconsciously adopt norms but then may not be able to escape from them.
- We may make rules for ourselves or for others but then also may come to be trapped by them.
- We tend to play 'language games' but also may become snared by language.
- Knowing is not cognitively neutral but is influenced by personal dispositions.
- Dispositions may not be pejorative in the sense of prejudice but do influence what we assume to be valid or invalid.
- Feelings may be personal and directed against an individual or may be undirected and impartial.

- Intuition is not sub-rational but is vital for any understanding.
- While intuition may come to us 'in a flash', this is the outcome of an iterative approximation to understanding, which is preconscious.
- Most of the problems in philosophy, and thus any knowing, come less from seeking the right answers than from asking the wrong questions.

An example of asking the wrong questions could be normative selection theorists asking why managers as selectors displace their rules for interviewing, rather than asking whether they may have reasons to do so which have been neglected by the theory. Wittgenstein's case that perception is not cognitively neutral but is inevitably influenced by personal dispositions nonetheless has been suggested from findings by Judge and Ferris (1992). Bozionelos (2004) also has found that people are predisposed to be satisfied or dissatisfied with their work experience regardless of what others claim to be the 'facts' of such experience.

We suggest that there also is relevance for selection theory in Wittgenstein's central case that perception and understanding of the meaning of words, images or non-verbal behaviour depends on their context, which may differ at different stages in a selection process such as in pre-interview screening, and a structured phase or semi-structured phase of an interview. This may also be the case in the context of final selection decision-making, when the members of a selection panel are not in discourse with candidates but with each other. We discuss both these contexts in Chapter 9, on rethinking selection theory, and in analysis in chapters 10 and 11 of which criteria are important for managers in selection and what counts for them in final selection decision-making.

Wittgenstein further submitted that 'the grammar of the word "knows" . . . is closely related to that of "understands" [and the] "mastery" of a technique' (Wittgenstein, 1953, p. 59). What follows suggests that this is relevant to the technique of interviewing where simply knowing the rules does not mean that one has mastered them. It also suggests that there is relevance for rethinking selection theory and practice in Wittgenstein's case and that 'the criteria which we accept for "fitting" are much more complicated than might appear at first sight' (ibid., p. 73).

This has parallels in wider areas of management theory than personnel selection. Mintzberg (1975, 2004) has stressed that even understanding what people say, which is what most management is about, can be ambivalent. Or, in Lewis Carroll's (1865) terms, do they mean what they say and say what they mean, or say 'the said thing' and do 'the done

thing' according to tacit rules and implicit norms (Oliveira, 2006) in a given environment? Is their meaning always explicit or often implicit in what is presumed to be understood?

Gestalt, perceptions and paradigms

In his later work, Wittgenstein was highly influenced by the *Gestalt* psychology of Peirce and Jastrow (Peirce & Jastrow, 1884; Jastrow, 1899). *Gestalt* is the German word for images, forms or shapes, and how we perceive them, which also can be the case for how we perceive and understand or misunderstand what we assume to be facts. Peirce and Jastrow stressed that meaning lies not in what is represented to us but in what we ascribe to it. As in what we may assume to be 'a fact'.

An example from Peirce and Jastrow cited by Wittgenstein is reproduced in Figure 2.1, which can be seen either as a duck or as a rabbit. The 'fact' of the figure does not change. How we see it can, with the characteristic also that we cannot readily see it as both at the same time.

Thomas Kuhn (1962, 1970, 1996) directly acknowledged the influence of Wittgenstein's *Philosophical Investigations* and his examples of *Gestalt*, drawn from Jastrow, in helping him come to understand how the hold of norms in professions could influence perception and dispose different scientists such as a physicist and a chemist to perceive the same phenomenon or 'fact' differently:

> An investigator who hoped to learn something about what scientists took atomic theory to be asked a distinguished physicist and an eminent chemist whether a single atom of helium was or was not a molecule. Both answered without hesitation, but their answers were not the same. For the chemist the atom of helium was a molecule because

Figure 2.1 Duck or rabbit?
Sources: Wittgenstein (1953), Jastrow (1899).

> it behaved like one with regard to the kinetic theory of gases. For the physicist, on the other hand, the helium atom was not a molecule because it displayed no molecular spectrum. (Kuhn, 1996, p. 50)

Kuhn observed that those who achieve a new paradigm often 'have been either very young or very new to the field' and that 'being little committed by *a priori* practice to the traditional rules of normal science, they are particularly likely to see that those rules no longer define a playable game and to conceive another set that can replace them' (Kuhn, 1996, p. 90).

But he also was pessimistic about the prospects of this, citing Max Planck to the effect that 'a new scientific truth does not triumph by convincing its opponents and making them see the light, but rather because its opponents eventually die off, and a new generation grows up that is familiar with it' (Planck, 1949; cit Kuhn, 1996, p. 151).

Or it may be the case that some exponents of a selection theory assumed to be paradigmatic, such as Guion (2010, 2011), come to recognise late in life that its cognitive basis is constrained, and have the intellectual courage both to admit as much and to indicate areas of cognition such as tacit knowledge and intuition that selection theory needs to consider. This is merited in a reconsideration of the socio-cognitive basis of the concept of *schema* in Bartlett.

Schema and socio-cognitive dynamics

In his *Remembering: A Study in Experimental and Social Psychology*, Frederick Bartlett (1932 [1995]) developed the concept of schema, or how we relate current cognition or recognition to how we have less than consciously made sense of previous experience. As indicated later, this has gained recognition from more recent findings in neural research.

Reference to Bartlett's concept of schema also is common in mainstream selection theory, yet rarely so in relation to *Gestalt* psychology. Bartlett gave Rorschach-*Gestalt* images to those taking part in his research into cognition and asked what they saw in them. The images were similar to 'ink blots' – which of themselves are 'facts' for anyone who still blots ink, or may spill it – but otherwise have no intrinsic meaning.

Edwards and Middleton (1987) have emphasised the misleading way in which references to Bartlett's schema concept tend to neglect its socio-cognitive dynamics and stress that this is an interrelation of conscious and unconscious processing. According to them, this process is a dynamic adaptation of past from current experience and how

this happens is highly dependent on social context, including not only learning within groups but also that groups – whether in personal life or at work – are the basis of any learning.

This is consistent with findings by researchers on group dynamics that groups less than consciously come to share schema, yet may also less than consciously adapt them (e.g. Jackson & Chung, 2008; Newman et al., 2008). This also relates to operational culture and climate, where understanding may be implicitly acquired (Newman et al., 2008). Further, team members often share and enhance tacit knowledge without being conscious of doing so (Jackson & Chung, 2008).

Rethinking the findings from Bartlett's (1995) experimental work on cognition and recognition reveals striking contrasts with some of the main recommendations of normative selection theory.

First, the use of Bartlett's concept of schema as 'organised experience' has become much more static in much selection literature rather than in his own exposition, with less or no attention paid to the dynamic, interactive and synergic manner in which he claimed that the mind relates current cognition to earlier experience.

Second, Bartlett stressed that in this relation of conscious and preconscious processing, we 'fit' current cognitions with pre-existent schema which may be subject to some initial delay but then 'enables us to go direct to that portion of the organised setting of past responses which is most relevant to the needs of the moment' (ibid., p. 206), which has parallels with intuition.

Third, Bartlett not only related cognitive 'fitting' to 'feeling' but stressed that for the participants in his experimental work, *all* relationships of current to past experience 'were constantly described as felt' (ibid., p. 24). This suggests that, rather than being an emotive non-rational factor which should be excluded from selection, feeling may be *a necessary* condition for cognition or recognition, which has been stressed by Damasio (1994, 2010) and Goleman (1996). Parallel neural research has also found that feelings are central to cognition and sense-making (Cutting, 1997; Panksepp, 2003; Lieberman, 2007; McGilchrist, 2009).

Fourth, Bartlett observed that we are better able to 'fit' current schema to past schemata of organised experience when the information is organised around a theme, and that we do not normally take a situation detail by detail and then build up a picture of the whole. Rather, we have 'an over-mastering tendency simply to get a general impression of the whole' (Bartlett, 1995, p. 206) and that unless we can do so, we may not be able to reach an integrated judgement, which directly contrasts with

the recommendation of normative selection theory not to be influenced by early impressions.

Fifth, Bartlett submitted that cognition enabling an integrating judgement cannot be divorced from '*appetite*, *instincts*, *interests and ideals*, the first two being much the more important in early stages of organic development, and the last two advancing to issues of *great*, and very likely of *chief* importance at the human level' (ibid., p. 210, his emphases). He then observed that this 'is precisely what the psychologist means by "temperament"; insofar as it is developed during the course of life, it is what he means by "character"' (ibid., pp. 212–213).

Thus, for Bartlett, rather than schema being cognitively neutral, 'interests and ideals' (values and beliefs), 'temperament' (dispositions) and 'character' (personality) are intrinsic to and inseparable from cognition itself. Further, he claimed that 'the materials dealt with by different schemata overlap, and the appetites, instinctive tendencies, attitudes, interests and ideals which build them up display an order of predominance among themselves. Moreover, this order remains relatively *persistent*.' (ibid., p. 308)

This suggests both that cognition referentially interrelates different schema and that an unconscious processing is involved in an ordinal ranking of those predominant among them, which, in principle, discourse analysis should be able to determine. The widespread, though not exclusive, neglect in the literature on normative selection of such socio-cognitive dynamics in Bartlett (1932 [1995]) has meant that normative theory tends to assume that selectors should be passive receivers of sense data and neutrally process it, whereas Bartlett's findings contest this.

Anticipating Piaget (1950, 1953, 1955, 1962) and also Bourdieu (1977, 1979, 1980, 1984, 1990, 2001), Bartlett submitted that how we think includes *symbolic* schema such as images or verbal codes; *operational* schema as functional sense-making of experience; and *behavioural* schema in knowing how to respond to expected modes of behaviour. For Bartlett, these were not static, but interactive, dynamic and central to connecting current cognition and previous sense-making, as well as to social communication, much of which was later to be confirmed by neural research.

Rethinking schema and scripts

Bartlett (1932) did not use the concept of a script but some definitions and analyses of scripts are consistent with his dynamic conceptualisation of schema. Scripts can be both written and spoken. They either may be routine, without expecting anything other than a ritual response,

such as 'have a good day' or 'all well?', or may be deployed with intent to affect outcomes, of which we later give examples of power dynamics in selection decision-making.

According to Lord and Kernan (1987) and Lord and Maher (1991), a script is a sequence – held in the memory – of the objects, events, roles, conditions, sentiments and outcomes that occur in familiar tasks and situations. Hastie (1980) relates script and schema by claiming that a script is a 'procedural' schema. Schank and Abelson (1977) and Taylor and Crocker (1981) conceptualise it as a 'familiar event' schema.

Inversely, Augoustinos and Walker (1995) claim that scripts enable 'connectivity', which also has been stressed by connectionist theory in cognitive psychology, to which we return. But they also submit that scripts are not simply stereotyped sequences of events. They are dynamic and interactive in relating cognition to a specific social context. For Gioia and Manz (1985), scripts are the outcome of interpersonal communication, involving a progressive assimilation of new sequences of events into internalised expectations of appropriate behaviour.

Scripts therefore are not only conscious. They connect both past and present experience in terms of which we may be less than wholly conscious. Studies of both scripts and of cognition in organisational settings, such as those by Huff (1990) and Lord and Maher (1991, 1993), suggest that there is a close relationship between scripts and preconscious processing.

But while the literature on scripts is illuminating, something is missing in distinguishing scripts from schema. In particular, Bartlett was concerned with how we process cognition or recognition in relation to *incoming* information. Scripts, when spoken, constitute *outgoing*, giving or asking of, information. Both draw on tacit knowledge.

Tacit knowledge

Tacit knowledge is most closely identified with Michael Polanyi, who claimed that this was vital to understanding even in the 'hard sciences' and on which he carried credibility since he had trained as both a physicist and a chemist before being appointed a professor of both at Manchester (Polanyi, 1958, 1962, 1968). Tacit knowledge has gained much greater resonance in other areas of management studies rather than selection theory – especially in relation to competitive advantage since, not being explicit, tacit knowledge is difficult for competitors to copy or clone (e.g. Nonaka, 1991, 1994; Nonaka & Takeuchi, 1995; Baumard, 1999; Ambrosini & Bowman, 2001; Ichijo & Nonaka, 2007).

Polanyi was not the first to conceptualise tacit knowledge. As he acknowledged, Thorndike and Rock (1934) had already done so. But, not least since coming from a background in 'hard science', his case for it gained a high profile. He claimed that tacit knowing was more vital than deductive reasoning, inference or calculation, and that in coming to understand something, we do not simply infer conclusions from the evidence we are examining.

Polanyi submitted that 'there are things that we know but cannot tell' (Polanyi, 1962, p. 601). He claimed that this is strikingly true of our knowledge of skills, of which his best-known example is riding a bike or swimming, which one knows how to do 'but I may not have the slightest idea how I do this' (ibid.). Similarly, Judge and Ferris (1992, p. 3) have claimed an 'amazing convergence across decision makers on a statement that goes something like this: "I can't articulate it, but I'll know it when I see it."'

Further, according to Polanyi (1958, 1962, 1968), words convey nothing except by a previously acquired meaning, which may be modified by their current use or clarified by an example, but will not as a rule have been consciously gained rather than tacitly acquired by experience. For Polanyi, like Bartlett (1995), 'subsidiary understanding' or 'tacit knowledge' is organised in terms of 'schema' and 'may vary over all degrees of consciousness' rather than just be unconscious. He further claimed that the basis of any knowing is tacit and argued for the 'ultimately tacit character of all our knowledge' (Polanyi, 1958, pp. 91–92).

Not by focal attention

Normative selection theory has little time for tacit knowledge since its main rationale is that selection should be by explicit criteria. Tacit knowledge also rarely features in the literature on personnel selection, of which rare exceptions have been Sternberg (1997) and Sternberg and Wagner (1992), whose concern was to relate tacit knowing to predictors of job success.

Normative selection theory also stresses that selectors should focus their attention on the inferred attributes of candidates in relation to a range of specific criteria and that they then should focally attend to ranking them in significance. But, for Polanyi, insight and understanding can be reduced by focusing our attention on specifics. Focal awareness in inference is always conscious, whereas 'subsidiary awareness may range from a conscious level to levels altogether inaccessible to consciousness' (Polanyi, 1962, p. 602).

This is consistent with the claim of Schumpeter (1911[1949]) that focusing on specific criteria may both distract understanding and block 'creative aptitude'. Thus, a regression analysis can correlate, but what it correlates may be coincidental rather than causal. In a manner familiar enough to senior managers who neither have the time to undertake statistical analysis nor the confidence that it explains 'the whole picture', Polanyi wrote:

> If the scientific virtue of exact observation and strict correlation of data are given absolute preference for the treatment of a subject-matter [it] disintegrates when presented in such terms [and] the result will be irrelevant to the subject-matter and probably of no interest at all. (Polanyi, 1958, p. 139)

As he also put it, 'we can know [tacitly] how to discriminate a complex pattern of things, without being able to tell by what features we discriminate it' (ibid.), which we suggest, with later supporting evidence, may be the case in cognitive processing in seeking to determine multiple dimensions of candidate fit in semi-structured interviewing.

Edmondson et al. (2003) have analysed the interfacing of tacit and codified knowledge in skill acquisition following the adoption of new technologies. Koike and Inoki (1990) have claimed evidence that tacit knowledge as the basis of skill acquisition underlies higher performance in companies in Japan than in their subsidiaries elsewhere in East Asia, even when the latter are using newer technologies.

Researchers such as Bontis and Fitz-enz (2002), Crossan et al. (1999), Nonaka (1991, 1994), Nonaka and Takeuchi (1995), Ichijo and Nonaka (2007), and Peltokorpi et al. (2007) also have claimed that interfacing of tacit and explicit knowledge, and therefore the relation between conscious and less-than-conscious processing, is crucial for understanding and that tacit knowledge can readily enough be surfaced by discourse.

By contrast, the feasibility of identifying tacit knowledge has been challenged by Akbar (2003) and Gourlay (2006) on the basis that any 'know how' combines both tacit and explicit knowing and that Nonaka has demonstrated no operable methodology for identifying and surfacing such knowledge. Yet it is arguable that this misrepresents both Nonaka and Polanyi. For example, while Polanyi's claims for tacit knowledge are well known, it is less recognised that he also claimed that 'a tacit coefficient appears to be integral to any explicit knowing' (Polanyi, 1962, p. 605).

Thus, unlike the claims of Akbar and Gourlay that the theory of tacit knowledge polarises conscious and unconscious processes, Polanyi stressed that both are constantly connected by such a coefficient. In turn, a coefficient, as in mathematics, is referential rather than inferential, and also logical, which implies that there may be referential logic in the interfacing of tacit and explicit knowing. This also has relevance for what may be tacit rules and implicit norms in selection and why managers as selectors, drawing on tacit knowledge and implicit learning from experience, may prefer to do so rather than respect the rules of normative selection theory.

Tacit rules, implicit norms and selection

A distinction between a rule and a norm can be illustrated from driving, where the rule may be that a speed limit must be regarded, whereas the norm may be that it is not. In normative selection theory, there are structured rules of procedure which should be followed such as Anderson and Shackleton's (1993) illustrative example of a panel interview in which a chairperson calls the panel to order, recommends ranking candidates in terms of explicit criteria on score cards, invites panellists in sequence to give information to and to question candidates, regulates the discussion and summarises the content.

Yet, this focus on explicit criteria neglects the tacit knowledge on which managers as selectors may need to draw to reconcile cognitive fit of the attributes of candidates with a range of multiple needs for person–job, person–workgroup or person–organisation fit. This may not only be why managers sometimes displace prioritising explicit criteria in personnel selection but why, at least at some point in an interview, they may neglect the rules recommended for it.

For, rules may be too constrained for a selection, or an organisation, to work well. Michael Cooley (1982), a mathematician and engineer who was formerly the national president of one of the two white-collar trade unions in the UK and an adviser to the case study (A) on identifying tacit knowledge and implicit learning (reported later in the book), has stressed that the main way to bring management to its knees in an industrial dispute is to 'work to rule' since no explicit rule code can ensure that an organisation functions well rather than dysfunctions.

The same point more recently has been echoed by Nigel Nicholson, who himself gained experience of working in organisations before becoming a professor of management at the London Business School. What Nicholson (2010a, 2010b) stresses is Darwinian in that human

evolution did not happen by small groups or societies first adopting explicit rules and norms, but by tacitly or implicitly evolving them. Yet, inversely, replacing tacit knowing with explicit rules and norms may inhibit group learning.

This also may be the case with normative selection theory and the dyadic polarisation it makes between wholly structured interviewing-by-rule and unstructured interviewing without rules (e.g. Dipboye, 1992, 1994, 1996, 1997), which may not only be overdrawn but also inhibit advances in selection theory. For, semi-structured interviewing or a semi-structured phase of an interview may not be entirely without tacit rules or implicit norms. Rather, it may be the case that managers as selectors may be guided by these, derived from operational and organisational experience, and that they may have their own logic (Oliveira, 2000, 2001, 2002, 2005, 2006, 2007).

How interviewers acquire tacit rules and implicit norms for interviewing may well be informal rather than formal, such as learning from an anecdote of something which was considered 'out of order' or 'out of line' in an earlier interview. Or it may be tacit but direct in the sense of a novice interviewer observing the manner in which more-experienced interviewers conduct themselves in structured and then less-structured phases of an interview.

There also may be a sequencing of interviewing which complements highly conscious methods in initial evaluation of candidates with others which are less conscious. Managers as selectors may have information from pre-interview tests of knowledge, skills and abilities, as well as from psychometric tests. If so, the pre-interview tests are likely to have been explicitly assessed and scored, while psychometric tests tend to be guided by overt rules and norms. But in semi-structured interviewing, or a less-structured phase of a panel interview, it may be that the rules become more tacit than overt and the norms by which managers interview, although more implicit than explicit, may still be rational.

For there may be interfacing explicit and implicit logics in why and how this happens. Thus selectors may anticipate or know in advance that there will be a less-structured phase of an initially structured interview. This may be because of opening remarks on the conduct of the interview made at the outset by the panel chair, because they are aware from earlier experience that this is how the interview is likely to be run or because they have learned from others with experience of interviewing that this is how the interview is normally conducted.

If there is tacit knowledge and implicit logic in how managers conduct semi-structured interviewing, this would support the claims of

Sternberg (1997) and Sternberg and Wagner (1992) that tacit knowledge is a structured derivation from previous experience. In which case, it may be that selectors are structuring what they think and what they seek even during what nominally is unstructured interviewing. While Harris recognises that 'further research is needed to determine whether structured interviews and tacit knowledge measures exhibit similar relationships' (Harris, 1999, p. 149), this is what the case studies later in this volume tend to confirm.

The case that selectors may adopt tacit rules and implicit norms in interviewing also support Polanyi's (1962) claim that we may be skilled in what we do without conscious awareness of how we are in doing so, which may be the case in reaching a final 'integrating judgement' (Guion, 1965, 1997) in selection. This is consistent with Westen's (1999) claim that human thought and memory involve at least two systems, one conscious and explicit and the other unconscious and implicit (ibid.).

It also is consistent with theories of schema and script. Both schema (e.g. Bartlett, 1995) and script (e.g. Gioia & Manz, 1985; Lord & Kernan, 1987; Huff, 1990; Lord & Maher, 1991, 1993; Louis & Sutton, 1991) function as categorisations of the world on which we draw to make sense of current experience. Yet they 'may vary over all degrees of consciousness' rather than just be unconscious (Polanyi, 1958, pp. 91–92), which also is the main response to the claims of Akbar (2003) and Gourlay (2006) that theorists of surfacing tacit knowledge such as Nonaka (1991, 1994) have dichotomised overt and tacit learning.

Such an approach also parallels Reber's (1967, 1976, 1989, 1993) concept of 'implicit learning' in the context of tacit knowledge, Hasher and Zacks's (1984) analysis of the process of encoding information without awareness of how we have learned what we have learned, and Nonaka's (1994) and Baumard's (1999) stylisation of individual and collective knowledge modes which interface what is explicit and tacit.

Notably, if confirmed, this would support Bradshaw's (1998) distinction between overt and latent knowledge, and in particular taken-for-granted rules and routines which are presumed and tacit rather than explicit. Thus it may be that, in learning from experience, interviewers adopt tacit rules and respect implicit norms in semi-structured interviewing. Further, it may be found from discourse analysis that there may be both explicit and implicit logics in how they do so, which raises issues that the next two chapters seek to address.

3
Yet How Do We Know?

The previous chapter drew on *Gestalt* psychology to suggest that one of the reasons for the hold of an intellectual paradigm is that people may be disposed to view the same phenomenon in different ways. This chapter indicates that the hold of a paradigm may also be embedded in 'the matter of the mind'. It outlines findings from left and right hemispheric brain functioning, which demonstrate that the left hemisphere both can be premise constrained and can 'confabulate' or invent its own 'virtual reality' while displacing or denying right hemispheric sensing, feeling or intuition that the paradigm is dysfunctional.

While a more detailed reassessment of intuition is left to a later chapter, this one suggests that normative selection theory has been constrained by such premise-dependent reasoning in advocating that interviewing should be consciously structured, whereas right hemispheric sensing that this is inadequate may be among the reasons managers as selectors can disregard it. The chapter recognises that whereas normative theory presumes that selectors should inferentially draw on the attributes of candidates as they perceive them and, if they can, consciously rank them according to normative criteria, it neglects the degree to which conscious cognition necessarily draws referentially on what already is preconscious.

In doing so, it draws on the 'Neural Darwinism' of Nobel laureate for physiology Gerald Edelman (1992) and the implication of his findings that there is a referential rationality in 'the matter of the mind' of which we are not conscious but which can process and make sense of greater complexity than inference. It relates this to the notion of a cognitive continuum as claimed by Hammond (1996, 2000, 2007 which, as cited in the Introduction, influenced Guion (2011) in coming to recognise that there was a need to rethink the cognitive basis of personnel selection theory.

The chapter goes 'back to the future' in drawing on David Hume (1739, 1740, 1748, 1751) as one of the founders of experimental method and his concept of 'the reflexive mind'. For while normative selection theory claims that selectors should be solely concerned with facts and avoid values, feelings and beliefs, Hume claimed that such avoidance is impossible and that perception is reflexively influenced by values, feelings and beliefs acquired from previous experience. The chapter also relates this reflexivity to Hume's influence on Schopenhauer's (1818) conceptualisation of 'the self and the other', where the other may be either people or phenomena, and to more recent claims from cognitive and social psychology concerning a 'socially constructed' self.

Competing hemispheric rationalities

It has been known since the early 19th century that the left hemisphere of the brain is more closely associated with speech and calculation and the right with sensing and feeling. But findings on their respective roles, what they are disposed to attend to, and how they interrelate have recently been enhanced by neuroimaging.

Such findings, summarised in Box 3.1, indicate that the left hemisphere reasons in a dyadic either/or manner. It makes a whole from the parts much in the manner of Mintzberg's metaphor of 'the components of a portfolio' (Mintzberg et al., 1998). It is the right hemisphere that sees the world with Mintzberg's (ibid.) 'integrated perspective', taking in the whole first, as in *Gestalt* and as in Bartlett's findings that recognition, or re-cognition, 'goes direct' to an understanding rather than building up a picture from its components (Bartlett, 1995).

Left hemispheric sense-making is linear and seeks finiteness. Right hemispheric sense-making is non-linear and analogical in the sense of Bateson (1973, 1979). The left hemisphere distinguishes and de-notates, which is integral to normative selection theory. The right hemisphere is the domain of intuition, whereas the left can disregard or dismiss what it suggests. The left hemisphere's concern is with its own 'virtual world' and it sees itself as a passive victim of whatever it has not consciously controlled (McGilchrist, 2009), which is consistent with the complaint of normative selection theory that managers as selectors displace it.

Such findings indicate that in terms of reasoning and rationality, the left hemisphere is 'bounded', whereas the right hemisphere is 'unbounded'. Yet one may overrule the other. McGilchrist (ibid.) has put this in a wider cultural context in claiming that while the reasoning of the left hemisphere has been a triumph of Western modernity, its

Box 3.1

Left and right hemispheric thinking

The left hemisphere of the brain is concerned with focal attention, which Polanyi (1962) warned could distract from wider understanding. It makes a whole from the parts.

The right hemisphere takes in the whole first, as in *Gestalt*.

The left hemisphere claims certainty. The right hemisphere can live with ambiguity.

The right hemisphere is more open than the left to context in its sense-making. It is on the 'look out' rather than 'looking into'.

The left hemisphere prefers what either is static or comparative statics. The right hemisphere can accept flow.

Left hemispheric sense-making is linear and seeks finiteness. Right hemisphere sense-making is non-linear and analogical.

The left hemisphere is dyadic, as in either/or. The right hemisphere can seek lateral solutions to apparent contradictions.

The left hemisphere prefers its own self-contained 'explicit virtual world'. The right hemisphere can address and try to resolve what is implicit.

The left hemisphere is preoccupied with what it already knows. The right hemisphere is more open to learning from experience.

The left hemisphere likes certainty and seeks it. The right hemisphere can 'live without it' and try in due course to make sense of it.

The left hemisphere distinguishes and de-notates. The right hemisphere connects and connotates.

The right hemisphere learns up. The left hemisphere learns down.

Recognition is a right hemisphere attribute. Inhibition and denial are left hemisphere specialities.

The right hemisphere can dismiss false premises and deductions as absurd. The left hemisphere sticks to the false premise as in 'that's what it says here'.

Main Sources: Cutting (1997); Panksepp (2003); McGilchrist (2009), Oliveira & Holland (2012).

'self-serving' rationality and disposition to 'defend' itself against challenge risks not only errors of judgement but also, at worst, failure to recognise an impending disaster such as that climate change may be not only problematic but also catastrophic.

McGilchrist also claims that the increasing dominance of the left hemisphere in brain functioning has tended to displace the sensing, feeling and intuition which appear to have been more typical of an earlier era in evolution. It not only prefers the focal attention that Polanyi (1962) warned could displace understanding, and engages defence mechanisms against challenge, but also 'confabulates' in the sense of inventing reassuring fables (Panksepp, 2003). Or, as McGilchrist vividly puts it: 'The left hemisphere, nothing loath, makes up a story and, lacking insight, appears completely convinced by it' (McGilchrist, 2009, p. 81).

Moreover, the left hemisphere not only prefers the world that it has imagined for itself but reinforces and consolidates it since this is how it has come to presume to know and thereby claim both knowledge and understanding. It prefers to confirm what it presumes to 'know already', rather than recognise a challenge to it, as, arguably, has been the case with normative selection theory. Such cognitive reinforcement rather than rethinking has attracted increased interest in recent neural research because of its implications for psychotherapy (e.g. Lee, 2009; Nader & Einarssom, 2010; Wang & Morris, 2010; Alberini, 2011).

This is not to say that normative selection theory does not have merit in many regards. Nor do findings from neural research alone displace it. But they do suggest that sensing, feeling and intuition in interviewing merit attention rather than dismissal on the presumption that they are sub-rational or irrational.

While, in return, if more regard is to be paid to sensing, feeling and intuition, it is incumbent on those advocating as much to demonstrate the manner and degree in which they may have their own implicit rationality or logic. This is one of the main aims of *Rethinking Interviewing and Personnel Selection*. Yet these also can draw on longer-standing insights into theories of cognition and knowledge than recently have featured in the theory of personnel selection.

Hume and after

In a modernist manner, 'social science' presumes that the present necessarily progresses on the past and that there therefore is no need to delve into it (Oliveira, 2007; Oliveira & Holland, 2012; Holland & Oliveira, 2013). Yet what the next few pages suggest is that this is one of the reasons why the cognitive basis of normative selection theory has been constrained.

For example, Adam Smith (1752, 1759, 1776, 1795) has widely been presumed to be a founder of 'modernism', and David Hume, who influenced him, has been widely recognised as a pioneer of experimental method (Hume, 1739, 1740, 1748, 1751). Yet Parusnikova (1993) has observed that although Hume lived at the dawn of a modern era, there are striking similarities between his views and post-modernism, while Dow (2002a, 2002b) has compared Hume's method with what, following especially Bhaskar (1975), has been deemed 'critical realism'.

Hume's aim was to outline a 'mental geography', an anatomy of 'the reflexive mind' and 'connections' between conscious and preconscious thought. He claimed that anything that we think, perceive or believe connects external perception with 'internal perception' (Hume, 1739, 1748). He also held that there is not an isolated cognitive self in the manner of Descartes' *Cogito* rather than that how we think is who we have become through life experience in a manner which later would come to be called a 'socially constructed self'.

Hume claimed that current perception is influenced by what already is 'antecedently present to the mind', including the values and beliefs of the perceiver, submitting that no perception can be objective rather than subjective (Hume, 1739, p. 67). Integral to this, for Hume, were the sensing and feeling that normative selection theory claims should be avoided in judgement on candidates. He stressed that 'all our ideas are nothing but copies of our impressions, or, in other words, that it is impossible for us to think of anything that we have not antecedently *felt*, either by our external or internal senses' (Hume, 1739, p. 62, his emphasis).

He saw his 'connections' as interrelating perception in terms of evidence from the senses, cognition in the sense of knowing – or presuming to know – and what might or might not be cause and effect. He stressed that perception was fallible. For example, one might perceive and thus presume to know something from evidence without it actually being the case such as, before Copernicus or Galileo, 'knowing' that the sun circled the earth since one could see it.

Hume also stressed that what we assume is cause and effect is how the reflexive mind becomes habituated to particular or general ways of thinking which influence how we make sense of the external world. We are not normally conscious of this, nor of how we come to acquire the values and beliefs which then tend to govern our behaviour, which later was echoed, if without reference to Hume, by Bourdieu in his concept of *habitus* (Bourdieu, 1977, 1979, 1984, 1990, 2001; Holland & Oliveira, 2013; Fontes da Costa & Oliveira, 2014).

Hume further claimed that values and beliefs may be justified by reason, but we do not come to them through reason. Belief is a 'lively conception produced by habit' that results from how ideas are conceived and 'in their feeling to the mind'. It is 'more an act of the sensitive, than of the cogitative part of our natures' (Hume, 1739, p. 183) and concerns sensing rather than conscious cognition. Thus what we know or presume to know relates

> either to our internal perception or senses; and [it is] every particular of this system, joined to the present impressions, we are pleas'd to call a *reality.* (ibid., p. 108, his emphasis)

Thus, for Hume, the 'reflexive mind' becomes habitually disposed to general ways of perceiving and thinking which influence how we make sense of the external world. However, he also claimed that

> the mind stops not here. . . . With this system of perceptions there is another connected by custom, or, if you will, by the relation of cause and effect [that] forms them into a new system, which it likewise dignifies with the title of *realities*. (Hume, 1739, vol. I, p. 108, his emphasis)

Hume saw his claim for 'connections' between perception and the reflexive mind as his main contribution to human understanding. Findings from neural research support this, as well as his case that it is impossible for us to think of anything that we have not antecedently felt (e.g. Edelman, 1987, 1989, 1992; Damasio, 1994, 2010; Cutting, 1997; Panksepp, 2003; McGilchrist, 2009). So also does research on 'connectionism' in cognitive psychology (Dienes & Perner, 1996; Cleeremans, 1997; Glöckner & Betsch, 2008; Sadler-Smith, 2008; Glöckner & Witteman, 2010).

The self and the other

Thus, while normative selection theory claims that selectors should be solely concerned with facts and avoid values, feelings and beliefs in their assessment of candidates, Hume claimed that this is impossible. In doing so, he strongly influenced Schopenhauer (1818) in his concept of 'the self and the other', where 'the self' is socially constructed and 'the other' is the external world and other people. But how we perceive the external world – and assess others – cannot be 'objective'. It depends subjectively on ourselves and who we have become from experience of life. Schopenhauer thereon influenced existentialism from Kierkegaard through

to Sartre, yet also as well as Tolstoy, Turgenev, Thomas Mann, Nietzsche, Zola, Maupassant, Conrad and Hardy, among others (Magee, 1997).

Schopenhauer's concept of a socially constructed self recently has been paralleled by cognitive and organisational psychologists (Epstein, 1990, 1994; Epstein & Pacini, 1999) and sociologists (Bourdieu, 1984, 1990, 2001; Davies & Harré, 1990; Harré & Gillet, 1994) and in recent neural research (Edelman, 1992, 1998; Leary, 2007; Lieberman, 2007). The case that what is perceived depends on the dispositions of the perceiver was central for both Hume (1739, 1740) and Adam Smith (1759), and has been echoed in the phenomenology of perception by Husserl (1939) and Merleau-Ponty (1962), as well as Bourdieu (1984, 1990, 2001). Robertson (1994) has argued that 'an impartial reading of the available research leads to the inescapable conclusion that both (external) situations and (internal) dispositions are involved in the determination of behaviour' (ibid., pp. 75, 78).

Such issues and concepts are synthesised in Figure 3.1, whose right side parallels a figure by Budd (1989) illustrating features of Wittgenstein's later thinking. Cognition in Figure 3.1 is used in the sense of knowing or

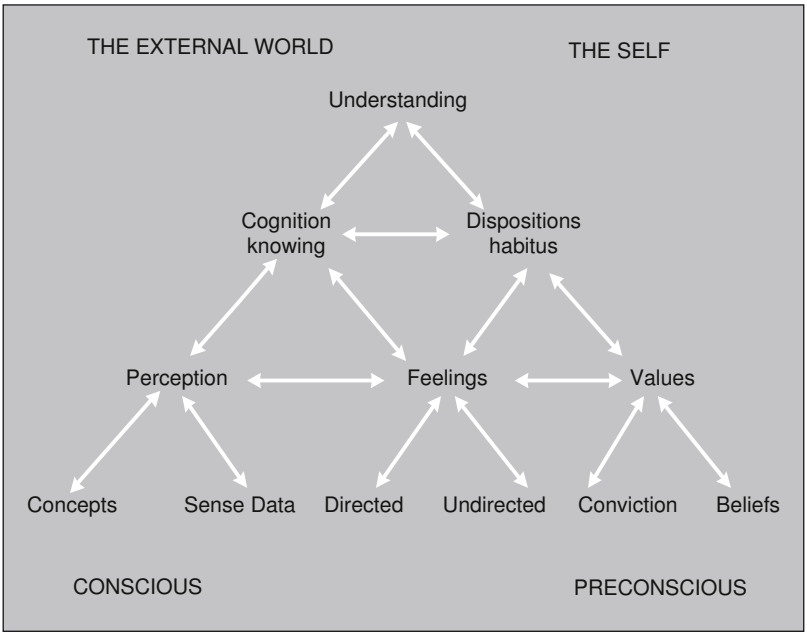

Figure 3.1 The self and the other
Source: Holland & Oliveira (2013)

assuming to know, which depends on perception and which both Hume and Smith stressed is influenced by both feelings and values (Hume, 1739, 1740; Smith, 1759, 1795). Sense data is a more modern usage than in Hume or Smith but consistent with their warning that what we perceive through our senses may be the case or may be a misperception (Holland & Oliveira, 2013).

The term 'belief' in Figure 3.1 is something believed in but which may or may not be the case. A conviction is a belief held without doubt which may or may not be justified. Understanding, at the apex of the figure, depends on the degree to which any cognition in the sense of knowing or claiming to know is qualified by what Hume called 'mitigated scepticism' and something that we only may be able to approach rather than necessarily achieve.

The distinction between directed and undirected feelings in Figure 3.1 is drawn both from Adam Smith in his *Theory of Moral Sentiments* (Smith, 1759) and from Wittgenstein (1980). Thus a directed feeling is partial, concerning a personal interest, whereas an undirected feeling is impartial, as in Smith's concept of 'an impartial spectator' (Smith, 1759).

The figure employs the term 'preconscious' in the sense of Hume that what we perceive relates to what already is 'antecedently present to the mind'. Under dispositions, which Hume stressed were habitual, it includes the complementary concept in Bourdieu (1984, 1990, 2001) of habitus which for Bourdieu, as for Hume, is the influence of how we were raised and how we acquired values, dispositions and beliefs at varying levels of consciousness, which we discuss later in Chapter 7.

Implicit learning and tacit knowledge

What may be either preconscious or unconscious relates to Reber's (1976, 1989, 1993) concept of implicit learning and Polanyi's (1958, 1962, 1968) concept of tacit knowledge, or coming to know, or assuming to know, without knowing how we have done so. What follows suggests that both are relevant to selection in the sense that while selectors may not be wholly conscious of the criteria on which they draw in interview discourse, they are drawing on what they implicitly know is needed for a job in the multiple dimensions of its operational and organisational contexts.

This is not to claim that the mind is in 'two boxes' – one conscious and explicit and the other tacit and implicit. Rather, it is consistent with the interfacing of tacit and explicit knowing, as claimed by Bontis

and Fitz-enz (2002), Crossan et al. (1999), Nonaka (1994), Nonaka and Takeuchi (1995), Ichijo and Nonaka (2007) and Peltokorpi et al. (2007).

There are comparisons in these regards between Reber (1967, 1976, 1989, 1993) on implicit learning and Bartlett's (1932 [1995]) concept of schema. Reber's claim that implicit learning is an unconscious process by which we categorise new experience on the basis of patterns of past experience is similar to the claim of Bartlett (1932 [1995]) that we process current experience in terms of schema in sense-making of previous experience.

The analysis in both cases is dynamic. The unconscious processor of the mind relates current to previous experience and informs it without us being aware of this. For Reber (1989, p. 229), 'knowledge acquired from implicit learning processes is knowledge that is always ahead of the capability of its possessor to explicate it', which both echoes Polanyi (1958, 1962) and may be the case in terms of the knowledge on which selectors tacitly and implicitly draw in semi-structured interviewing.

Reber's claims are not uncontested. There has been a wide-ranging debate on them within the volume edited by Dianne Berry (1993) on *How Implicit is Implicit Learning?* St. John and Shanks (1997, p. 389) have submitted that 'evidence for unconscious learning of any sort is highly questionable' and that 'human learning is almost invariably accompanied by conscious awareness' (ibid., p. 394). Cleeremans (1997) has pointed out that Reber himself has called the tendency to dichotomise 'conscious' or 'unconscious' learning as the 'polarity fallacy' (Reber, 1993, p. 31). In following this, as Cleeremans puts it,

> there appears to be a representational continuum that extends from raw storage of instances to fully abstract representations, and the opposition that is often made between abstract (implicit) knowledge and fragmentary (explicit) knowledge that is at the heart of so many debates about implicit learning begins to fade away when one considers the way in which connectionist models represent and use information. (Cleeremans, 1997, p. 224)

The 'connectionist' debate also relates to 'mapping' – a domain developed by Huff (1990) – and with this the claim that there is a direct relationship between observable patterns of behaviour and the internal processes which influence them. Connectionism also argues that the mind relates 'the many to the one' and 'the one to the many' (Cleeremans, 1997, pp. 197, 220), which had already been anticipated by Hume (1739, 1740).

The cognitive continuum

The notion of a cognitive continuum, as claimed by Cleeremans (1997), has been paralleled by Hammond (1996, 2000, 2007) and, as cited in the Introduction, influenced Guion (2011) in suggesting that there was need for selection theory to recognise that there is an 'oscillation' between analysis and intuition rather than just dismissing the latter.

According to Hammond's continuum theory, intuition and analysis represent the opposite end points on a cognitive continuum. Judgements vary between intuitive and analytical processes, or some combination of both. In making them, the mind oscillates between the end points. Between them, he claims that there is a *quasi-rationality* which involves a combination of intuition and analysis. An example is that aircraft pilots may add intuition to inference when interpreting weather data and rely on this to judge whether to continue on or turn back (Hammond 1996, 2000, 2007; Mosier, 2009), for which many of us may be grateful.

Hammond defines analysis as a 'step-by-step, conscious, logically defensible process' with a high degree of cognitive control, whereas intuition is 'a cognitive process that produces solution, or idea, without the use of a conscious, logically defensible, step-by-step process' (Hammond, 1996, p. 60).

Yet Hammond's dyadic distinction between analysis as a 'step-by-step' inferential process and intuition as lacking this may be overdrawn. Rather than their representing 'end points' on a continuum of cognitive activity, it may be that both are centrally involved in cognition. Intuition may constitute either a fast or slow iterative 'step-by-step' approach to understanding, which also is indicated by findings from neural research on the referential rationality of the mind.

Neural Darwinism

Until recently, neural research was widely disdained within not only personnel selection theory but also much of cognitive and organisational psychology. In introducing a compendium on 'dual process' theories of the mind edited by Chaiken and Trope (1999), Daniel Gilbert (1999), a professor of psychology at Harvard, claimed that getting 'dry' psychology 'wet' with the grey matter of the brain only gives 'erector set language' and that

> if we are to avoid being disappointed at the end of a long day of brain science, we need to recognize at its dawn that knowledge of a brain's doings cannot reduce the number of plausible designs to one, any more than knowledge of inputs and outputs can. (ibid., pp. 8–9)

But this is not confirmed by neural research. For example, Gerald Edelman (1987, 1989, 1992, 1998), who earlier gained a Nobel award for physiology, found that the brain is a 'natural selector' with a selective recognition system that can connect 'near infinite' combinations of meanings. In calling this 'Neural Darwinism', Edelman based it on the principle of neuronal group selection. He stressed that, unlike the input–output programming of a computer, the human brain both can 'categorise and conceptualise' and, by contrast with the brain of other animals, is capable of 'enhancement of previously established ability' (Edelman, 1992, p. 102).

Edelman's neuronal group selection is an unconscious process. But he also found a distinction from his neural research between primary and higher-order consciousness. The primary conscious concerns interactions between the limbic and the cortical systems. By contrast, conceptual categorisation requires both consciousness and memory which connect current and previous experience. Non-human animals have primary consciousness but lack the capacity for perceptual or conceptual categorisation which, with memory, is strictly cortical. This has been confirmed by later findings such as those of Martin (2007) which showed that only some regions of the brain allow categorisation rather than only sensory and motor properties.

It was on such a basis that Edelman claimed that the human brain is exceptional from the vantage of a 'socially constructed self'. Lieberman (2007) also has found from neuroimaging that connected unconscious and conscious processes in brain functioning account for understanding oneself, self-control or failing to control oneself, understanding or misunderstanding others, and success or failure in interacting with them.

Edelman's neural research further determined that in its unconscious processing, the brain is not a cognitive miser in the heuristic sense assumed by psychologists such as Tversky and Kahneman (Kahneman, 2003), but a cognitive adventurer, refusing to accept either finite connections or any boundaries. It traverses billions of neuronal groups in seeking to fit current cognition with its earlier mapping of experience. Confirming Hume's (1739) claim that 'the mind stops not here' with current cognition, the brain does not stop when it gives a particular finding to the conscious mind, or later gives another. The range of its referential rather than inferential rationality according to Edelman is 'near infinite'.

Referential rationality

Edelman's research therefore indicates that the brain is not only inferential but referential. It infers from current experience but also refers this

to previous experience and then may gain from feedback from this to inform current cognition. The brain keeps trying to gain a better cognitive fit by iterating alternative approximations to sense-making and understanding.

These connections between conscious and unconscious processes are neither premise dependent, as in deduction, nor finite, as in the solution to a finite equation, nor linear. Also, inference is conscious but can only infer from current experience, whereas Edelman found that the referential iteration of the brain seeks to connect current cognition with *any* previous experience. This echoes claims by Boddy (1989), in independent findings from neural research, and supports Mithen (1996) in his case that analogical cognitive fluidity was crucial in the evolution of human intelligence.

Edelman (1992) explicitly acknowledges that ongoing unconscious traversing by the brain is consistent with Bartlett's (1995) 'overlapping' schema and Wittgenstein's (1953) insight that intuition could be the outcome of such preconscious iterative traversing. Later neural research also confirms that Wittgenstein was justified in stressing that understanding the meaning of words or non-verbal behaviour needs understanding in context. For example, Jarrett (2006) cites research findings that brain activity varies according to how difficult a word combination is to process. Without a context, the activity is abnormally high. Within the context of previously understood meaning-in-use, as in a narrative, it is near normal (ibid.).

Edelman also recognised that how the brain traverses is precisely what Wittgenstein (1953) suggested in a metaphor of 'overlapping pictures' and what Bartlett (1995) also found in his presumption of 'overlapping schema'. Even when it may have given us one answer or insight, it keeps traversing to see if it can gain a better 'fit', which we suggest is relevant to how selectors in seeking to reconcile 'cognitive fit' with 'candidate fit' may opt for semi-structured interviewing to be able to traverse across different criteria domains.

In stressing such traversing in a presentation of his findings since the publication of his main work, Edelman (1998) made the analogy with a butterfly. This was not the butterfly effect popularised in chaos theory in that the movement caused by the wings of a butterfly on one side of the world might result in a hurricane on the other, rather than that the unconscious mind constantly is overlapping different synapses in a referential rather than inferential manner to make sense of what we have not consciously been able to resolve in recent experience. Figure 3.2 represents such an interrelation of inferential and referential rationality.

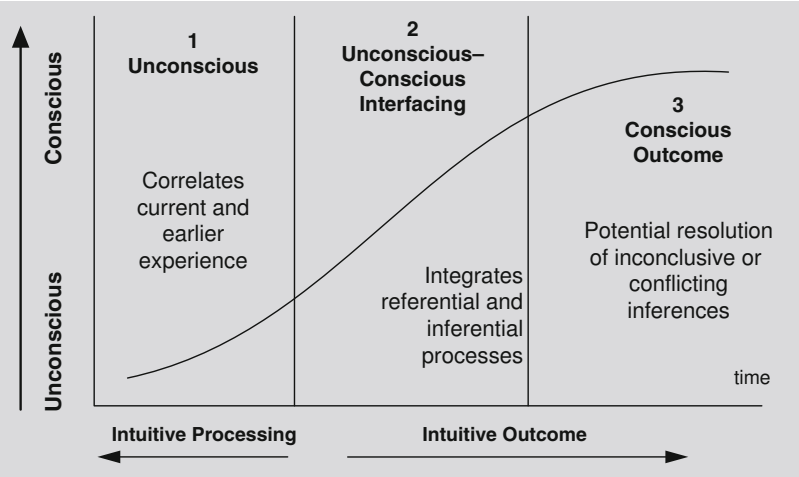

Figure 3.2 Inferential and referential rationality
Source: Own formulation

The socially constructed self

Edelman's concept of a 'socially constructed self' has been paralleled in the cognitive psychology of Seymour Epstein (1994), who has questioned how it could be that humankind could have survived and evolved if the unconscious mind were only driven by *libido, eros* or the death instinct of *thanatos* in the manner assumed by Freud (1900, 1915a, 1915b,1915c, 1922, 1925, 1930). According to Epstein:

> Everyone develops an implicit theory of reality that contains subdivisions of a self-theory, a world theory, and propositions connecting the two. A personal theory of reality is a hierarchically organized set of schemas and networks of schemas. (Epstein, 1990, p. 165)

Epstein's use of schema echoes that of Bartlett (1932 [1995]). But he also allows for personal dispositions such as the degree to which we are disposed to see the world as

- benign or malevolent;
- meaningful, predictable, controllable and just;
- regard others favourably or as a threat; and
- the sense or otherwise of self-confidence and of self-worth.

This is consistent with Levy et al.'s (1999) claim that people construct social worlds for themselves with 'each world being entirely logical and internally consistent within the framework set up by its implicit theory' (ibid., p. 199). Epstein also claims validity for feelings and emotions, in addition to matching what he calls 'affective processing' on the pleasure principle, as in Freud, with the principle of pain avoidance or aversion (Epstein, 1990, 1991, 1992, 1993, 1994).

In countering Freud's 'maladaptive' unconscious, Epstein and Rosemary Pacini also have submitted that

> people have beliefs in both the rational and experiential systems about themselves, the world, and the connections between them, which constitute their implicit and explicit theories of reality. (Epstein & Pacini, 1999, p. 464)

Such an approach concerns not only work and social relationships but also wider issues which were not of concern to Freud or others of his generation, such as how to redress environmental pollution and global warming (Epstein, 1990, 1991, 1992, 1994). Moreover, Epstein does not dichotomise intuition and rationality, but he stresses that intuition is an area for research about which relatively little is known 'very likely because there has been an absence of theory' (Epstein, 1994, pp. 719–720), which is one of the issues that *Rethinking Interviewing and Personnel Selection* seeks, at least in part, to redress.

4
What's the Logic?

Managers are always being called upon to justify their decisions. Just claiming that something 'seemed like a good idea at the time' will rarely suffice unless it works. Hence, for decades, there has been a preoccupation with various forms of modelling on a 'rational' basis. Yet Henry Mintzberg (1975) found 40 years ago that few top managers use sophisticated models or information systems of any kind. Most relied on what they heard from others rather than what was set out in databases or information sheets or explicitly modelled. Further, very few wrote down what they heard, so that 'the strategic data bank of the organisation is not in the memory of its computers, but locked deep in the minds of its managers' (ibid., p. 10).

Mintzberg et al. (1998) also claim that our behaviour is guided by ideas internalised over time and that these need not be explicit in decision-making to be rational. Dean and Sharfman (1993, 1996) submit that strategic or operational decisions, whether involving individuals, groups or organisational issues, always have an underlying rationale and that there should be ways to identify and understand it.

The case studies later in this book seek to demonstrate that this is feasible. This chapter develops the case made in Chapter 3 that there is a referential rationality interfacing both conscious and unconscious processes. In doing so, it draws on Piaget's (1962) concept of a 'cognitive unconscious', which he derived from children's acquisition of language where they less than consciously acquire the logic of grammar well before they can consciously distinguish between parts of speech.

The chapter also draws on Reber's (1967, 1976, 1989, 1993) use of the same concept of a 'cognitive unconscious' in terms of implicit rather than explicit learning, as well as on the claim of the mathematician and psychologist Ignacio Matte Blanco (1975, 1988) that there is an

'unconscious logic' in cognition which referentially connects current inference with sets of meanings less than consciously acquired from earlier experience. This chapter suggests that such unconscious logic makes sense of how the mind can cope with multiple criteria in personnel selection without suffering inferential overload. It relates the concept of unconscious logic to the role of tacit rules and implicit norms introduced in Chapter 2, and also follows through the suggestion in Chapter 3 that interviewing as an iterative process reflects similar iteration in the referential rationality of the mind.

Conscious and unconscious logic

Explicit logic as premise-based reasoning has been deeply embodied within Western rationality not only since Descartes (1637, 1641) but since classical Greece, and especially Aristotle. Aristotelian symbolic logic is binary and dyadic, such as that 'if *p* then not *minus p*'. A claim for this is that it trains the mind. Yet it also may constrain it by encouraging the presumption that only premise-based reasoning is rational.

In pioneering open-systems theory in cognitive research, Gregory Bateson (1973, 1979) found binary logic to be limiting because it concerned only two-valued linear processes, whereas much thinking and creative imagination is analogical and multidimensional rather than binary. Boekaerts et al. (2005) have echoed this in calling for alternatives to Aristotelian dyadic logic in research methodologies in organisational psychology.

Independent references to alternative logics are also widespread in literature on managerial decision-making. In his *Managers Not MBAs*, Mintzberg writes of the kind of *Master of Business Administration* (MBA) he and others recommend and have taught at INSEAD and Aspen as aiming 'not to transfer knowledge or develop skills so much as to develop self-awareness and explore alternative logics', as well as to 'unlearn' which, as he and colleagues recognise, can be more difficult than earlier conscious formal learning (Mintzberg, 2004, p. 219).

Matte Blanco (1975, 1988) does not feature in literature on personnel selection, or in literature on management, yet arguably is central to the case that selection theory should recognise relations between conscious and unconscious processing in judgement and evaluation of candidates. From his mathematical training at Cambridge, which included the set theory of Whitehead and Russell's (1910) *Principia Mathematica*, his Freudian psychoanalytic training, but also his clinical experience with patients, he ascribed two main roles to the unconscious.

One of these followed Freud, who had found that when his patients displaced or denied reality, they tended to do so consistently (Rayner, 1995). Yet Freud did not follow this through in terms of whether there might be an unconscious logic in their doing so, rather than focusing on the unconscious as the repository of irrational driving forces, desires and emotions.

Matte Blanco did so in claiming that the unconscious has its own logic. Although not apparently aware of Bartlett (1932), he paralleled Blanco's concept of 'overlapping schema' by identifying how the mind organises experience in sets and sets-within-sets of meaning. This is consistent with Mintzberg's (1975) finding that much of the organisational decision-making of top managers can be described in terms of 'organised sets of behaviour' (ibid., pp. 11–13).

Moreover, informed by Whitehead and Russell's (1910) set theory, which had allowed for a hierarchy of sets and sub-sets of meanings, Matte Blanco also claimed that the unconscious

> treats an individual thing (a person, an object, a concept) as if it were a member or an element of a set or class which contains others members; it treats this class as a sub-class of a more general class, and this more general class as a sub-class of a still more general class, and so on. (Matte Blanco, 1975, p. 38)

At one level, this can be seen simply as a relation of particular to general cases, and vice versa. Thus a manager is part of a wider set of managers, while also part of sub-sets of such a general class, such as an accounts manager, a production manager, a training manager or a head of human resource management (HRM). But Matte Blanco (1975, 1988) also distinguished what he called *bi-logic* in the interfacing of conscious and unconscious processes.

Thus while inference needs to make sense of asymmetric phenomena in a current stream of consciousness, the unconscious symmetrises this with sets-within-sets of meaning derived from earlier experience, thereby referentially rather than inferentially informing current cognition and avoiding inferential overload. Like Bateson (1973, 1979), Matte Blanco claimed that the logic of the unconscious is neither linear nor premise dependent, but isomorphic and analogical. He also submitted that the interrelation of conscious and unconscious processing is not only unbounded and non-finite but, in principle, infinite, which is similar to Edelman's (1992) findings from neural research.

Nor does symmetrisation depend on in-depth psychoanalysis. It can happen at a bus stop. Thus a mother is the mother of her child, yet shares being a mother or 'motherhood' with the set of all other mothers, which is why even in a casual meeting with others, she can symmetrise a whole range of experience in a smile when another mother is trying to deal with a recalcitrant or distressed child, without explicitly knowing the name of the other mother or her child, rather than 'knowing' that they mutually share a range of experience and meanings implied by motherhood.

Grammar, symmetrisation and unconscious logic

A further simple example of unconscious logic is grammar within speech. Grammar has its own logic, which can be made explicit and then consciously learned, as in school. Yet children do not learn to speak by first learning grammar. In speaking, as adults, we rarely are conscious of it. Unless genuinely bilingual, it may only be when trying to learn or later to say something in another language that we are aware that we should use a perfect rather than an imperfect tense, while we probably know well enough that a conditional is a 'would' or 'could' but never really got to grips with a subjunctive even when we were taught it. The more consciously we have to conceptualise grammar, the less good we are in our use of language.

Huff (1990) has argued in terms of mental maps which simplify reality, and which omit what is unduly complex. Yet, for Matte Blanco (1975, 1988), the normal rather than pathological unconscious does not omit but symmetrises complexity with sets and sets-within-sets of meanings antecedently gained in making sense of previous experience. Also, we do not need to rely consciously on explicit logic to do this. The interfacing of conscious and unconscious logic does it for us.

As in the interrelated sets of meaning implicit in the discourse of managers as selectors, which are exampled in the Annex, the managers were not conscious of these as sets-within-sets of meaning, but there was logic in how they deployed them in seeking to gain a closer approximation of cognitive fit of the attributes of candidates, and what they knew at varying levels of consciousness was needed for the multiple dimensions of operational and organisational fit.

At an analytic level, there are many parallels with Matte Blanco's claims for symmetrisation. One is Bartlett's (1932 [1995]) findings that 'symmetry, similarity, sameness' were common in the reactions of his respondents to what actually were asymmetrical figures or images, and

that this was 'not to aid immediate identification, but as a *basis* of inference' (Bartlett, 1995, p. 24, our emphasis).

Rayner (1995) has illustrated a parallel with Matte Blanco's symmetrisation in Piaget's (1950, 1953, 1955, 1962) findings in child development of imitation, matching and symbolism in play, which are symmetrical processes, while Piaget also had made claims for a cognitive unconscious. Chaos theory and the mathematics of complexity (Mandelbrot, 1979, 1982) are based on self-similarity and isomorphic symmetrisation. Bakhtin's (1935, 1981) claims for 'dialogical' discourse also imply symmetrisation.

In contrast to the concern of normative selection theory to avoid sensing and feeling in assessment of candidates, Matte Blanco (1975, 1988) also parallels Bartlett in claiming that any cognition or recognition 'tends to be felt' (Bartlett, 1995). Recent neural research also has confirmed the role of both feelings and intuition (Glöckner & Betsch, 2008; Sadler-Smith, 2008; Glöckner & Witteman, 2010). Rather than being irrational, sub-rational or non-rational, sensing and feeling may be rational in the sense of unconscious logic. They may also be less constrained than premise-based reasoning because the unconscious can correlate and make sense of what in principle is an infinite or near-infinite range of sets and sets-within-sets of stored knowledge and experience (Matte Blanco, 1975; Edelman, 1992).

Tacit rules and implicit norms

Jürgen Habermas (1976) has claimed that the validity of a norm is based on the supposition that it must contain some implicit rationale or logic. Nicos Mouzelis (1995) has submitted that norms tend to be less than conscious and that people may respect them without consciously conceptualising them. Bourdieu (1977, 1979, 1980, 1990, 2001) claims that there is a social logic for and within norms of behaviour.

Dewberry (1998) argues: 'The few available existing models of the relation between personality and job performance proposed, implicitly or explicitly, that there is a causal relationship between [them]' (ibid., p. 52).

Chris Argyris and Donald Schön have distinguished explicit from implicit rationales in contrasting 'espoused theory' from 'theory in use', with 'espoused theory' being what managers say or claim they do, whereas 'theory in use' is what they habitually do, and may contradict espoused theory (Argyris, 1982, 1993, 2001; Argyris & Schön, 1974, 1978, 1996; Schön, 1983, 1987, 1991).

As reproduced in Figure 4.1, Argyris and Schön also have distinguished conscious single-loop learning from what they contrast as deeper double-loop learning. Single-loop learning is easier since it does not challenge the underlying custom or practice. Double-loop learning is harder because it does.

In terms of selection theory, single-loop learning would be adding another criterion to those already established in the literature, such as not only person–job and person–organisation but also person–group fit, and other multiple dimensions of conscious cognitive fitting.

Double-loop learning would mean recognising that there may be logic in the interface between conscious and unconscious processing, that this may include the sensing, feeling and intuition that normative selection theory disdains and that effective selection may depend not only on explicit but also implicit logic. Argyris (2001) also has reinforced this in terms of his case that allegedly good communication, such as in memoranda or text messages, may block learning since it is based on implicit assumptions that should be challenged. The wide range of explicit criteria recommended in normative selection theory may be consciously understood if drawn to the attention of managers in selection yet not operable in interviewing because of interferential overload, and therefore displaced.

Further, as indicated in Figure 4.2, 'tacit rules' and 'implicit norms' may underlie Argyris and Schön's (1974, 1978, 1996) findings of systemic contrast between espoused theory and theory-in-use, while tacit rules and implicit norms, as outlined in Chapter 2, may influence both general management styles and operational and organisational behaviour (Oliveira, 2002, 2005).

Yet such tacit rules and implicit norms may have their own logic in personnel selection, such as in following an initially structured phase of

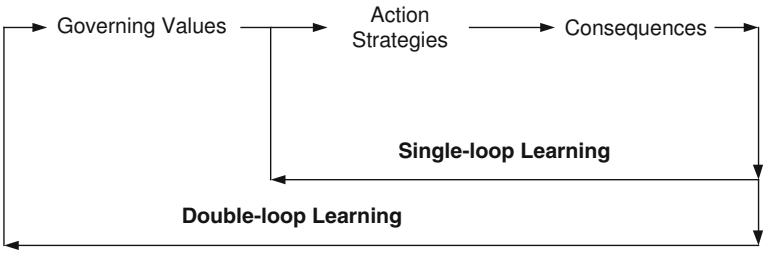

Figure 4.1 Single- and double-loop learning: Argyris–Schön
Source: Argyris (1993, p. 50)

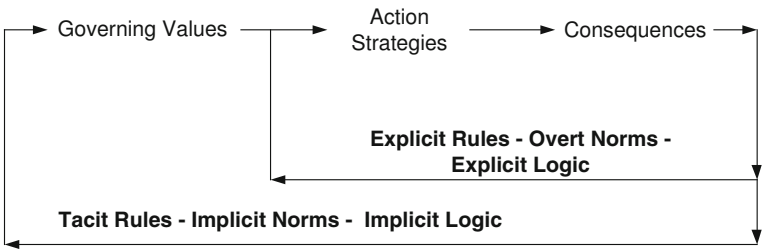

Figure 4.2 Tacit rules, implicit norms and implicit logic
Source: Adapted from Argyris (1993)

a panel interview by less-structured interviewing in order to be able to gain a closer iterative approximation of cognitive fit and candidate fit, or in how an operational manager with key front-line experience may implicitly assume and tacitly acquire leadership of a panel interview, as evidenced in Chapter 11.

Norms and mental models

Although he was not directly concerned with personnel selection, Senge (1990) has conceptualised norms and mental models in management which are relevant to those on which selectors may draw in interviewing. Thus he sought to identify the problems of the mindset of General Motors when faced with new competition from Japanese producers and asked:

> How are conditions for change met, for instance in a GM factory? 'How are these norms (and the social processes regulated by them) used for dealing with the 'adaptation' problem' in this particular factory? How do these norms and processes relate to other norms and processes? (ibid., p. 176)

He then cited Ian Mintroff's *Break-Away Thinking* (1988) in pointing out that surveys by the US auto producers since the early 1950s had suggested that all consumers cared about was styling, and that this belief gave rise to a pervasive assumption at GM that styling rather than quality in performance was paramount; that the American market was isolated from the rest of the world and that no one in a management hierarchy had any need for more than understanding his or her expected role in the business.

Consistent with Polanyi (1958, 1962, 1968), Senge has stressed that such mental models are tacit, below conscious awareness. The Detroit automakers did not say 'We have a *mental model* that all people care about is styling.' But they thought that 'all people *care* about is styling' (Senge, 1990, p. 176, his emphases). Because they did not question the implicit logic of their mental models, their predisposition to assume that this was all that counted remained, for too long, unquestioned. A gap widened between Detroit's mental models and the external world, leading to cumulative loss of market share, mass lay-offs and GM and Chrysler filing for protection from bankruptcy.

This may also have been the case, for decades, with a widening gap between the concern of normative selection theory with single-job fit and the multitasking, multiskilling and continuous improvement by which Japanese and South Korean producers have outcompeted the US auto majors (Womack et al., 1990; Colenso, 2000).

In his case on mental models, Senge was influenced by Argyris and Schön's (1974, 1978, 1996) recognition of the difficulty in gaining double-loop deeper-level learning and recounts how Chris Argyris confronted this in a seminar on 'reflection in action':

> Argyris asked us to recount a conflict with a client, colleague or family member. We had to recall not only what was said, but what we were thinking and was *not* said. (Senge, 1990, p. 182, his emphasis)

This, again, has a parallel with normative selection theory in that the sensing, feeling and intuition which are integral to everyday life, may be logical, yet could not be admitted by normative selection theory without challenging its own premise-dependent raison d'être that assessment of candidates should consciously avoid them.

Iterative logic, fractals and semi-structured interviewing

As already outlined, one of the main findings from the neural research of Edelman (1992) is that the unconscious mind works in brain functioning by iterating between alternative synapses to try to find better connections in sense-making. What we suggest in what follows is that semi-structured interviewing may be an 'iterative' process with a logic similar both to this and to iteration in mathematics when it is found that there is no finite solution to a problem.

The Latin origin of the word 'iter' is road or route. As in travelling on a high road and taking a route which is clearly marked, an interview

may begin in a structured manner with the same information given or asked of each candidate in the same predetermined way. The interviewers know where they are going, with explicit criteria mapping the route. This may include a structured way of giving information on what the job means in its operational and organisational context, and wishing to gain assurance that all candidates understand this.

Yet a point may then be reached at which a turning has to be made 'off road' to approximate a closer reconciliation of cognitive fit with the attributes known at varying levels of consciousness to be needed for candidate fit. Besides which, there is the question of whether interviewers are aiming for a known destination in the first place, such as given specifications for a job in a stable environment, or are on a journey to an unknown destination, in which changing job competencies and changing environments mean that future needs cannot be known now.

There are parallels between iterative methods in interviewing and the mathematics of complexity, or chaos theory as pioneered by Mandelbrot (1977, 1982) and his concept of 'fractals'. These may prove to be turning points, as in weather systems or the spawning of disease. Identifying and tracking them can take both time and considerable computing power (e.g. Gleick, 1988; Stewart, 1990), whereas an interview is once-off and time constrained. But 'fractals' may also be significant in interviewing, with a single answer from a candidate suggesting further questions to which further answers may enable a closer iterative approximation of cognitive and candidate fit.

Iterative method and selection sequencing

Iterative method may also be either explicit or implicit in the *sequence* of an interview. Its first phase may be structured in that a standardised process of giving and asking information in the same way for all candidates may yield an initial candidate profile in terms of fitting or not fitting explicit criteria. But it may only be in a further semi-structured phase that selectors decide or 'come to find' that they need to leave the high road of structured giving or asking information and traverse other routes to try to arrive at a resolution in terms of what Guion (1965) recognised could be 'criterion dilemmas'.

If this is the case, it would suggest that semi-structured assessment may be adopted by managers as selectors when structured interviewing may not in itself allow them to gain a decision concerning candidates who do not 'directly' match cognitive fit and candidate fit. It may

only be after a structured phase of an interview that they then seek to 'approximate' such fit by semi-structured methods.

At issue also is the degree to which assessment itself is a process of learning-by-doing, in which selectors informally, step-by-step, in an iterative manner, seek to gain more information on candidates than they can from the results of pre-interview psychometric or other tests, or from more structured interviewing.

Conceptualising structured and less-structured phases of an interview as complementary in the above senses can avoid the dyadic polarisation in selection theory such as that of Dipboye (1992, 1994, 1996, 1997) between structured and unstructured methods. Iterative method in interviewing confirms both the common sense process of 'trial and error' in seeking to gain a result and the heuristic method by which one may test and re-test a hypothesis to confirm it (Heuristic: 'Serving to find out or discover something; designating or employing trial-and-error methods in problem solving; educational practice or principle of training pupils to discover things for themselves', *Oxford Shorter Dictionary*).

Findings relevant to iterative process in semi-structured interviewing and the relevance of fractal insights come from tests by Dorfman (1990) and Dorfman et al. (1996) who examined the effects of cues in intuitive problem-solving. Simply put, these found that the greater the number of cues, the higher the rate of success. With one cue, the success rate was only 18 per cent. With two cues, the success rate increased to 40 per cent, and with more cues, to 84 per cent. In these experiments, moreover, success rates could be low for up to 15 minutes, from which point they increased markedly.

This suggests that asking only the same questions of all candidates in the same way without following through with other questions may have a lower success rate in terms of reconciling cognitive fit and candidate fit than also allowing for iterative questioning in a less-structured phase of an interview. This may also be the case with intuition, not in the sense of Kahneman's (2003) presumption that this is a heuristic 'short cut' or 'stab in the dark', but the outcome of a process by which the unconscious has sought to reconcile or resolve conflicting evidence, such as in science, or conflicting attributes of candidates, as in personnel selection.

5
Where's the Proof?

Normative selection theory is enamoured by predictors. As with economics, these give it the claim to be a science rather than an art. By contrast, Keynes (1936) warned that the mathematical basis for prediction does not exist either in economics or politics or in personal life. Pareto (1909), an engineer, sociologist and economist, gave the same warning, though many economists citing him have displaced this (Oliveira & Holland, 2012). Hume (1739, 1740) stressed that prediction is hazardous and claimed that proof of cause and effect is impossible. Popper (1957, 1959) argued that one can only falsify, not verify.

Yet neither Keynes nor Pareto dismissed any assessment of probable future outcomes as necessarily false, while Hume admitted that presumptions of cause and effect are central to sense-making. In turn, Popper (1957, 1959) and Kuhn (1962) allowed that any theory which may fall short of claims to universal truth, such as Newtonian physics, may sufficiently fit the facts such as we know them, to be credible. Hayek also claimed that if it is found that people perceive different things in a similar manner, and do so consistently, this meets a sufficient condition for verification (Hayek, 1937, 1942; Holland & Oliveira, 2013).

This chapter relates such issues to both the scope and limits of predictors and verification in selection theory. It also draws on Bartlett (1932 [1995]) and his neglected recognition of unconscious ordinal ranking in schema, as well as Matte Blanco (1975, 1988), and suggests that if it is found from discourse in selection that managers less than consciously rank criteria in the same way in relation to operational and organisational needs, and if this can be found to be the case from ex post analysis of their discourse, it constitutes an 'implicit verifier' of what counts for them in candidate choice.

Predictors and proof

Clive Fletcher (1997) allowed that 'the ability of tests to predict future performance has always been the 'gold standard' of psychometrics, given more weight and credibility by psychologists than any other validity evidence' (ibid., pp. 8–9). However, as he also commented:

> Increasingly this model simply does not work because it has become less and less relevant to the circumstances found in organisations . . . With constantly shifting role definitions, it becomes difficult to define the selection requirement with any specificity, and well-nigh impossible to carry out predictive validity studies. (ibid., p. 9)

Yet Fletcher also recognised that this poses problems in relation to increased demands from equal opportunities legislation, for justification of employment decisions recognising this and for determining what may or may not constitute evidence concerning it. As he puts it:

> There is a real danger of psychometric testing being caught between the demands of flexible, rapidly developing and fluid organisations and the demands of a rather rigid legal framework that places emphasis on facts, logic and – above all – evidence. (ibid.)

To meet the challenge of equal opportunities legislation, he advocated the need to adopt some of the principles that Herriot (1993) proposed for selection as a social process, arguing that 'if we can make selection more of a joint venture with candidates, and more acceptable to them, the legal challenges are likely to decrease'. He added:

> I am not suggesting that we no longer need to look for empirical evidence of test-performance links, but I am suggesting that the nature and extent of that kind of evidence is likely to be different in the future. (Fletcher, 1997, p. 10)

One of the likely implications according to Fletcher was 'compressed validity cycles', with a much shorter time lapse between the selection and the measures of performance. Validity is likely to become less specific to job roles and more related to wider parameters. If this concerns assessment ex ante for as-yet partially unknown job roles, it may be likely that selectors are becoming more concerned to identify attributes of candidates which relate to their adaptability to changes in methods of

work operation and work practices, and that concern with narrow job fit is less meaningful than concern with multiple operation fit.

Cognition and prediction

As suggested in Chapter 1, Ivan Robertson has identified limits to predictability if one is taking personality into account (Robertson, 1994). He drew on earlier analysis by Bandura (1986) to illustrate that there is 'joint interacting' between personal and situational behaviour and that

> when this framework is applied to the elements involved in personnel selection it becomes very clear that it is impossible to predict anyone's future work behaviour from a knowledge of his or her personal qualities. (Robertson, 1994, pp. 78–79)

Robertson summarised the 'big five' personality constructs as emotional stability; agreeableness; extraversion; openness to experience (itself a function of extraversion) and conscientiousness. He also identified five 'sub-factors' much in the manner in which Matte Blanco (1975, 1988) had identified sets and sub-sets of meanings-within-meanings, such as whether people were impulsive, socially confident, group dependent, conventional and detail conscious.

Robertson then argued that, in principle, such personality constructs also need to be related to work competences, such as analysis and judgement; decision-making; interpersonal sensitivity; and resilience, energy and initiative, which in turn also need to be related with specific job demands and situational factors to be able to predict overall job performance and work proficiency. But, commenting on this, he then observed that even within the initial set of the 'big five' personality constructs, not only are there many different variations but

> if standard ten scores are used then nearly ten million combinations are possible. If personality is measured using a more detailed level of analysis . . . the combinations would give over a thousand billion different profiles. (Robertson, 1994, p. 86)

This parallels Pinker's (1995) claim that the lexicon of possible word combinations that anyone could deploy is at least a hundred million trillion, and Mithen's (1996) asking how a child can master the logic of linguistic rules simply by inference and then answering that 'quite simply, it couldn't' (ibid., p. 44). By contrast, Edelman's (1992) case on the

working of the mind is that the brain can referentially traverse 'near infinite' connections of synapses, and he suggests, endorsing Wittgenstein, that intuition rather than inference may be able to make sense of these in relation to specific challenges, which are relevant to those facing selectors.

Robertson also contrasted the thousand billion different possible profiles of the personality of a candidate with the parsimony of most predictive validity studies, which have been 'limited to findings about the links between single characteristics and work behaviour' (Robertson, 1994, p. 86).

Yet such validity studies have been based on the presumption that only conscious processing is rational as a predictor and that sensing, feeling and intuition are not. This neglects that it may only be the interfacing of conscious and unconscious processes that can integrate the 'near infinite' potential attributes of a candidate in terms of Rodger's (1952) or Munro Fraser's (1978) job characteristics (Box 1.1) in enabling Guion's (1965) 'final integrating judgement' on a candidate.

Questions on verification

The 'logical positivism' of 1930s 'Vienna circle' claimed that a proposition that could not be verified against 'facts' was metaphysical, probably meaningless, and should be discarded. This then had resonance in much Anglo-American philosophy through A. J. Ayer's *Language, Truth and Logic* (1936) and a 'verification principle' which drew on Rudolf Carnap (1934) who was the driving force in the Vienna Circle and also had been influenced by the claim of early Wittgenstein (1922) that there could be propositional 'truth functions' mirroring realities.

Ayer (1936) allowed for both strong and weak variants on his derivation of a verification principle from Carnap (1934). Strong verification refers to statements that can be verified by observation. Weak verification refers to statements which are not directly verifiable but may be plausible.

Ayer (1963) later acknowledged limits to this distinction. Notably he had not made clear whether the 'method of verification' could assure a standard or universal criterion for verification, rather than what satisfied an individual or a group in terms of sufficient verification to be held to justify decisions (Ayer, ibid; Macdonald & Wright, 1986; Oliveira & Holland, 2012; Holland & Oliveira, 2013).

Karl Popper (1959) is well known for the claim in his *Logic of Scientific Discovery* that scientific laws are not empirically verifiable, but may be falsified. As the philosopher and biographer of Popper, Bryan Magee

(1973, 1997), has stressed, Popper acknowledged that the same claim had been made by Hume two centuries before. Among the factors influencing him were Einstein's special and general theories of relativity, which in key respects qualified Newtonian physics. When experiments favoured Einstein, this did not mean that his theories had been proven to be 'true' but did mean that they were closer to whatever the 'truth' might be than Newton's theories (Magee, 1997).

In line with Popper, Thomas Kuhn (1962, 1996) recognised that falsification of a prevailing paradigm is vital to replacing it with another, yet, unlike him, also proposed that this did not mean that there could be no verification:

> Verification is like natural selection. It picks out the most viable among the actual alternatives in an actual historical situation. (Kuhn, 1996, p. 146)

Kuhn also claimed that

> falsification, though it surely occurs, does not happen with, or simply because of, the emergence of an anomaly or falsifying instance. Instead it is a subsequent and separate process that equally might be called verification since it is the triumph of a new paradigm over the old one. (ibid., p. 147)

Like Popper, Kuhn was influenced by the displacement of Newtonian physics by Einstein's theory of relativity, but he also recognised that this was less a refutation of the principles of Newton than able to explain issues and phenomena which Newton did not address. Kuhn also allowed that

> all historically significant theories have agreed with the facts, but only more or less. There is no precise answer to the question whether or how well an individual theory fits the facts . . . It makes a great deal of sense to ask which of two actual and competing theories fits the facts *better*. (ibid., his emphasis)

Yet verification is not only a matter of choosing which of two competing theories fits the facts better. Rather, as Hayek put it,

> when different people perceive different things in a similar manner . . . [this] must be regarded as a significant datum of experience which

> must be the starting point in any discussion of human behaviour. (Hayek, 1937, p. 37)

Thus, in Hayek's sense, and extending it to the context of personnel selection, if it is found from one-to-one discourse with managers that they prioritise criteria in the same manner, this becomes a significant datum on why and how they choose to select. It may also indicate a less-than-conscious logic in the connections which they make with their operational and organisational experience, much of which may have been 'antecedently present to the mind' in the sense of tacit knowledge or implicit learning yet also may be surfaced by analysis of their discourse.

Grounded theory and selection

We suggest that such an approach to verification is consistent with findings from grounded theory. This aims to 'elicit fresh understandings about patterned relationships between social actors' (Glaser & Strauss, 1967, p. 32). As a method developed, among others, by Charmaz (1990, 1994) and Henwood and Pidgeon (1995), grounded theory involves observation, as well as discourse and discourse analysis.

Further, as Shah and Corley (2006), and Symon and Cassel (2006) have stressed, grounded theory can be informed by quantitative analysis but is a process based on finding qualitative meanings in specific contexts, which is consistent with Wittgenstein's (1953) condition for understanding in that the meanings of words depend on the context of their use.

Such an approach to verification, informed by grounded theory, would be reflexive in the sense of Hume (1739, 1740), Bourdieu (1984, 1990, 2001) and Argyris and Schön's (1974, 1978, 1996) 'reflective practice'. Thus data-driven concepts may need to be developed to make sense of either discourse or behaviour, such as selection discourse and decision-making, where the logic may be conscious or unconscious (Piaget, 1962; Matte Blanco, 1975; Reber, 1993) during selection, yet may be identified ex post through discourse analysis.

Drawing also on Hayek's (1942) claim that 'when different people perceive different things in a similar manner . . . [this] must be regarded as a significant datum of experience' (ibid., p. 37), the approach would allow that discourse analysis – either of interviewing or of what managers deem is important for it – may verify that there is a shared logic in such discourse. Also that there may be logic in why they shift from structured to semi-structured or unstructured interviewing of candidates

and in how they may achieve procedural and distributive justice in both interviewing and selection decision-making without consciously adopting structured methods to do so (Chapters 9 and 10).

Social construction, discourse and verification

Within 'social constructionism', Gergen (1994) has claimed that 'whatever is simply is' and that 'there is no foundational description to be made of an "out there" as opposed to an "in here" about experience, rather than the world of discourse' (ibid., p. 72).

Following Gergen, Contu and Wilmott (2005, p. 1650) – reasonably enough – ask one of the longest-standing questions of philosophy: 'How do you know the world is the way you say it is; and why should we believe you?' To claim that 'there is no foundational description to be made about an "out there" as opposed to an "in here"' (Gergen, 1994, p. 72) may also be right in many cases. For example, in cases where advocates of rational expectations and efficient market theories presumed that splitting derivatives in futures markets had a basis 'out there', and would do so in future, which then was to be confounded by the 'subprime crisis' and the collapse of Western banks and hedge funds (Tett, 2009; Oliveira & Holland, 2012).

In social constructionism, such claims can be taken to extremes, sometimes deliberately, as in the claims of Baudrillard (1995) that the Gulf War 'did not take place' by which he did not mean that the first invasion of Iraq did not occur but that it should be perceived not as a war but as 'an atrocity masquerading as war'. This has been echoed by Gergen (1994) in claiming that 'social constructionism' does not deny reality and that 'poverty, death, or the world out there more generally . . . simply is' (ibid., p. 72).

Yet this hardly constitutes a working principle for verification or for personnel selection. By denying that anyone can 'know for real' what they presume is 'out there', social constructionism risks solipsism (Reed, 2005). To claim that an interview 'simply is' may have relevance to how managers as selectors interview if they have not been trained in techniques of interviewing, are pressured by operational needs, and may not even have either the time or disposition to reflect on what they 'should do' in an interview in terms of normative theory, but rather simply turn up and 'get on with it'.

However, if one is to understand what does happen in interviewing, why it appears that managers as selectors diverge so often from what is recommended in normative theory and what implications might be drawn from

this, it helps to be able to analyse different perceptions of what criteria are important for them in which contexts, which may vary at different phases of a selection sequence from pre-interview tests to final decision-making, or differ between structured and semi-structured phases of an interview.

Moreover, managers as selectors thereby may not be only 'one self' but rather different selves in different contexts, with varying dispositions at different stages of a selection process. Harré and Gillet (1994) and Davis and Harré (1990) have stressed such multiplicities of 'the self', including both work and life roles. Parenting is a familiar example. We may at one moment be all loving kindness and yet in another a stern disciplinarian. Yet this does not mean that we have stopped loving our children, rather than indicates our concern to instil in them a sense of either a norm, such as respecting others, or a rule vital for survival, such as in looking both ways before crossing a road.

This may also be the case with managers at different stages of a selection process and the criteria which they may differently prioritise in them. Thus in pre-interview trainability tests, their priorities may be knowledge, abilities and skills. In a structured phase of an interview, they may be giving information on the nature of the job, what it 'really means' and assuring themselves that candidates have understood this. In a later less-structured phase of an interview, managers may prioritise values and personality (Chapter 10).

Managers as selectors may also 'play along' with structured criteria, rather than overtly challenge them. They may rank candidates by explicit criteria on score cards, yet may retain for themselves their own judgement of candidates in terms of seeking confirmation or disconfirmation of attributes which are less readily explicit, but vital for Guion's (1965) 'final integrating judgement'. These may include intuitive judgements, which may be needed to integrate conflicting attributes of candidates which cannot only be arithmetically summed from a score card, rather than remain as open questions. The intuitive judgements, in turn, may, in principle, be addressed in joint post-interview evaluation and decision-making on candidates, such as asking a company psychologist to explain more about the outcome of his or her one-to-one pre-interview psychometric tests or evaluation of group role-play (Chapter 11).

6
Why Dismiss Intuition?

Intuition is the Cinderella of social science, associated with sub-rational unstructured thought, devoid of logic or rules. This has also gained lexical authority. Intuition has been defined as 'immediate apprehension by the mind by sense or by senses without the intervention of reasoning; direct or immediate insight, an act of intuition separate from logic' (Oxford Shorter Dictionary, vol. I, p. 1407).

However, in attempting to understand people's actual decision-making, Simon (1978) found that words like intuition are used without any explanation of the processes that may give rise to them. Lamenting as much, he observed that interpersonal and 'intuitive' factors in decision-making need to be better understood. Epstein, as cited earlier, did not dichotomise intuition and rationality, but stressed that intuition is an area for research about which relatively little is known 'very likely because there has been an absence of theory' (Epstein, 1994, p. 719).

This chapter follows through Guion's (2010, 2011) late, but commendably frank, recognition that cognition may be on a continuum between inference and other forms of knowing, or assuming to know, such as intuition. In doing so, it submits that intuition is the outcome of an iterative referential process by which the unconscious mind seeks to reconcile or resolve issues that inference alone could not. In submitting this, this chapter cites a range of claims from management theorists and cognitive psychologists, as well as traces how intuitive insights have provided the hypotheses from which key breakthroughs have been achieved in science and technology.

But the chapter also centrally critiques the claims of Daniel Kahneman and Amos Tversky in their distinction of two systems of thinking, of which one is intuitive but unreliable, and the other is slow but rational, and for which Kahneman (2003, 2011) won a Nobel Prize for contributing

to 'economic science'. It does so in terms of both their methodology and outcomes, and not least that the rational expectations and efficient market theories that paved the path to the subprime crisis and the greatest financial crisis of the Western world since 1929 met all of their conditions for rationality yet, crucially, displaced sensing and intuition of risk.

Intuition and scientific method

The Eureka effect of intuition offering the sudden answer to a problem is most notably associated with Archimedes displacing water in a bath and thereby realising that this could determine the mass, and thus the gold content, of an irregular shape – in his case, a crown that had been commissioned by King Hero II but which Hero suspected had been tampered with silver (Eureka: 'Exultation at a sudden discovery. 1st person singular of the Greek verb for "find"', Oxford Shorter Dictionary).

To be aware that Archimedes 'came to this' by getting into a bath shows some knowledge of the history of science. To claim today that a breakthrough in science came to one 'when in the bathroom' would be regarded as frivolous, despite this being indicated by Peter Medawar as where the insight came to him which then gained him a Nobel Prize for biology (Medawar, 1963, 1990). Similarly, it would be frivolous to confess that a major finding came 'when partying' although it was when Gutenberg attended a festival celebrating a wine harvest that it 'came to him' that the press being used to crush grapes could be applied to press typefaces (Koestler, 1964).

Thus, in the 'hard' sciences, a breakthrough may come less from testing an already-premised hypothesis than from 'dreaming another up', as it did for Kekulé when he intuited the molecular structure of benzene in a dream about a snake swallowing its tail. Niels Bohr gained his insight into how electrons remain in their orbits from a dream of horses running around a race track (Ross, 2006). Such examples do not suggest that Freud (1900) was wrong in claiming that dreams may concern erotic symbolism and desires. But they suggest that the unconscious may also drive intellectual desire to gain a solution to a problem that conscious reasoning has not been able to resolve.

Bruner and Clinchy (1972) have argued that intuition tends to kick-start more analytic problem-solving processes. Elstein and Bordage (1979) suggest that it may give the insight which makes it possible to generate hypotheses which then can be confirmed or disconfirmed by more conventional scientific methods. Medawar (1963, 1990) stressed that, even if this is the case, it is unacceptable to admit it in a scientific

paper, since the norm is to specify hypotheses ex ante and then conveniently find that they are confirmed, rather than that a range of them had been discarded in the interim. This was the difference which in Medawar's case, after he gained a Nobel for contributions to biology, led him to claim that the method claimed in most scientific papers, was misleading, if not fraudulent (ibid.).

Recognising intuition

Intuition has been centrally recognised in a range of management studies. Nonaka (1994) has claimed that, at their best, Japanese companies are good at encouraging it. As he puts it:

> Creating new knowledge is not simply a matter of 'processing' objective information. Rather it depends on tapping the tacit and often highly subjective insights, intuitions and hunches of individual employees and making those insights available for testing and use by the company as a whole. (ibid., p. 24)

Crossan et al. (1999) have claimed that intuition can be central to an organisational learning process. And in what proved to be one of the bestselling management texts both in Japan and abroad, Kenichi Ohmae (1982) earlier argued:

> Successful business strategies result not from rigorous analysis but from a particular state of mind. In what I call the mind of the strategist, insight and a consequent drive for achievement, often amounting to a sense of mission, fuel a thought process which is basically creative and intuitive . . . Great strategies, like great works of art or scientific discoveries, call for technical mastery in the working out but originate in insights that are beyond the reach of conscious analysis. (ibid., p. 4)

Brawn (2000) also has seen intuition as the engine of conscious rationality rather than replacing rationality. In a field-based approach surveying senior managers in a range of US companies, Kahtri and Ng (2000) conceptualised what they found as 'intuitive synthesis', recognised that this is unconscious or sub-conscious, but claimed that it is part of all decision-making and is neither necessarily emotional nor biased.

In his analysis of 'mind sets', Senge (1990) has claimed that what distinguishes knowledge from understanding in management is 'integrating reason and intuition' as a means of 'seeing our connectedness to the

world' (ibid., pp. 167, 169). Eraut (2000) has recognised that intuition may give insights, which can then be assessed against evidence. As cited in the Introduction, Guion also has allowed that Hammond is right in claiming that 'cognition oscillates between analysis and intuition' (Hammond, 1996; Guion, 2011, p. 415).

The comeback now is accelerating, especially in relation to connections between conscious and preconscious thought that had been anticipated by Hume (1739, 1740). Such connections through intuition have been recognised in a range of recent research findings (e.g. Glöckner & Betsch, 2008; Sadler-Smith, 2008; Glöckner & Witteman, 2010; Holland & de Vries, 2010).

Intuition's setback

Yet while this renewed interest in intuition could encourage its reconsideration in selection theory, it suffered a setback from two of the most influential cognitive psychologists of recent decades, Amos Tvesrky and Daniel Kahneman, for which Kahneman then was awarded a Nobel Prize in 2003 for contributions to economic science. A paper by them in the journal *Econometrica* dismissing intuition in favour of premise-based rationality was the most cited reference to any paper in it for years thereafter (Kahneman & Tversky, 1979).

As illustrated in Figure 6.1 from Kahneman's (2003) lecture on receipt of his Nobel Prize, he and Tversky claimed that there are dual processes in the mind (Tversky & Kahneman, 1973, 1981, 1983, 1986, 1988, 1991, 1992). Thus they polarised a System 1, which is intuition, from a System 2, which is premise-based reasoning. They presumed that perception and intuition are 'fast, automatic, effortless, associative, implicit (not available to introspection), and often emotionally charged'. The operations of reasoning are 'slower, serial, effortful, more likely to be consciously monitored; they also are relatively flexible and potentially rule governed' (Kahneman, 2003, p. 698).

But there are both methodological and empirical grounds for questioning Tversky and Kahneman's claims, not least since the rational expectations and efficient market theories which paved the path to the subprime crisis of 2007 (Tett, 2007, 2009) fulfilled all of their System 2 conditions for reasoning.

In terms of their criteria on the right side of Figure 6.1, such economic theories were highly conscious, serial, controlled, rule governed, flexible in adaptation to different financial products and initially both slow and effortful before being computerised 'to remove human error'

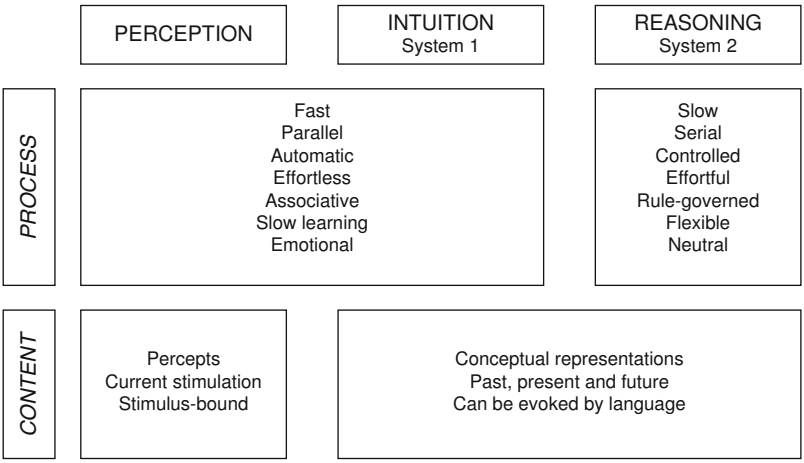

Figure 6.1 Dichotomising reasoning and intuition: Tversky–Kahneman
Source: Kahneman (2003)

(Tett & Gangahar, 2007). Moreover, in left hemispheric manner, the theories displaced right hemispheric warnings of risk and entirely displaced refutation. Notably the collapse in 1998 of the Long-Term Capital Management hedge fund, which had been founded by two economists who also were Nobel laureates – awarded for their contributions to rational expectations theory – and which needed a salvage operation organised by the Federal Reserve to avoid a systemic financial crisis a decade before the collapse of Lehman Brothers and the second Wall Street crash (ibid.; Holland & Oliveira, 2013).

Yet that Tversky and Kahneman should claim that there are dual processes in the mind should not be surprising. Much of what has been considered in earlier chapters also has done so, whether this is in terms of the different, if related, roles of the two hemispheres of the brain (McGilchrist, 2009), or the distinction between conscious inferential and less-than-conscious referential processing (Edelman, 1992) or Matte Blanco's (1975) concept of bi-logic as symmetrisation making sense of asymmetry in the stream of consciousness to avoid inferential overload.

Tversky and Kahneman submitted that rational thinking and intuitive judgements are 'governed by characteristically different logical rules' (Kahneman, 2003, p. 713), which in principle could be compatible with Matte Blanco's (1975) case for bi-logic, though Kahneman does not refer to it nor to the claim of Matte Blanco that the unconscious has

its own logic. Their inclusion of intuition as either fast or slow learning (Figure 6.1) also may be right in practice, even if anomalous in their figure, since their main claim is that it is fast, unreflected and therefore unreliable.

No time to reflect

Kahneman and Tversky used the term 'heuristic' in a manner echoing Simon's (1957) 'satisficing' principle that we economise in decision-making by choosing the most readily accessible method of gaining an answer, and dispense with complexity in seeking it. This contrasts with Einstein's (1905) use of heuristic as an assumption that may as yet not have been verified but may prove capable of verification. Their use of heuristic also differs from Simon (1957) in his call for more intuition in management rather than rejecting it.

Kahneman and Tversky's claims for verification of their method have depended on simulations with students, as has been the case in many claims to verify normative selection theory, rather than observation of managers in decision-making such as had informed Mintzberg (1975). They also were highly premise dependent. Thus they assumed that intuition was instant and that only instant responses would confirm or deny its veracity, and therefore insisted that the students responding to their questions should have no time to reflect before answering them.

An example was stating that a bat and ball cost 1 dollar and 10 cents, that the bat costs a dollar more than the ball, and then asking how much the ball cost, to which many of their respondents – pressured to give a quick response – answered 10 cents, rather than 5 cents. This wrong answer then was deemed by Tversky and Kahneman to prove that intuition is unreliable. But whether this was intuition rather than simply a snap response to a snap question is open to question.

Another of their methods was cueing responses to images, such as showing someone a page with a photograph of a child beside a rocking horse in the foreground of a room, with another similar rocking horse in the background, and asking the size of the horses as they are shown 'on the page' (Kahneman, 2003). Influenced by the perspective of the picture of the room, whose floor tiles and walls narrowed towards the second rocking horse, many respondents replied that the one further away was bigger even though 'on the page', as put in the question, the size of the more distant rocking horse was the same as that in the foreground (ibid.).

Tversky and Kahneman deemed this allegedly 'intuitive response' false. But this is similar to what Wittgenstein (1953), a half century

before, had denounced as a 'language game' since giving what allegedly was the 'right' answer depended on understanding the meaning-in-use of 'on the page' which many respondents reasonably could take to mean 'in the photograph on the page' while also, in seeking the implicit logic behind the question, assuming that its purpose was to recognise the role of perspective and that the second and further rocking horse, though the same size 'on the page', therefore would be bigger.

By contrast with Tversky and Kahneman's insistence on not allowing time for reflection, even momentary time for this has been found to help avoid mistaken decisions in highly pressured teamwork situations, as in the introduction of keyhole heart surgery in a range of hospitals in the United States (Edmondson, 2003).

It has also been found that pressure for snap responses to questions in the manner of Kahneman and Tversky's methodology is less effective in gaining correct answers to them than actually distracting those being questioned by something else and then returning to the first question after even a few moments in which the unconscious has been able to engage with and answer the question correctly (Dijksterhuis, 2004).

In denying any time for reflection and demanding an instant response, Tversky and Kahneman were denying the relation of conscious to unconscious processing, which may be critical for any intuition. By pressuring for unreflected responses to questions, or images, and assuming that these were intuitive, they displaced precisely the time, either momentary or longer, which intuitive processing may need to give or suggest an answer.

Premise dependence

The Tversky–Kahneman 'two systems' model nonetheless promoted an industry of research and presumed findings, such as those of 60 contributors to a volume edited by Chaiken and Trope (1999), including some of the most eminent cognitive psychologists in the United States. Yet the premises shared by many of the contributors are open to question, especially in reflecting the presumption of Tversky and Kahneman that fast responses to either images or questions were intuitive, whereas it may be that intuition is a referential process by the unconscious mind, rather than a conscious 'stab' at an answer when pressured to respond immediately to a question.

Kahneman has claimed that the 'central concept' of his work with Tversky was accessibility, especially the ease with which particular 'mental contents' come to mind as determined by the stimuli and events

that provoke them (Kahneman, 2003, 2011). By contrast, Wittgenstein (1953), Polanyi (1958, 1962, 1968) and Matte Blanco (1975, 1988) were concerned with what may not be readily accessible to consciousness yet may be crucial in influencing perception and cognition.

Kahneman and Tversky focused on the role of intuition in misunderstanding. By contrast, Wittgenstein allowed that intuition may be fallible, yet claimed that it also was the basis for any understanding, as had no less than a theorist of pure reason than Kant (1781, 1783) and one of the leading mathematicians of the 20th century, Poincaré (1908).

Thus Kant argued in his *Critique of Pure Reason* that 'all mathematical knowledge has this peculiarity, that it must first exhibit its concept in intuition . . . without this means mathematics cannot make a single step' (Kant, 1918, p. 36), while Poincaré insisted that 'it is through logic that we prove; it is through intuition that we discover' (Poincaré, cit. Claxton, 2000, p. 44).

Kahneman and Tversky were concerned with what they assumed were correct or incorrect answers to questions or responses to images. Wittgenstein (1953, 1980, 1982) claimed that there may be no dyadically correct or incorrect answers to many questions, that the meanings of words depend on their use, by whom, in different contexts, and that these could suggest multiple meanings rather than only one 'correct' answer.

Kahneman and Tversky also presumed that intuition as a process is 'effortless'. Yet the evidence from neural research, such as that of Edelman (1992), is that intuition may be the outcome of highly effortful processing by the unconscious to gain a better fit of cognition with either current or previous experience.

Kahneman allowed that perception is emotive and is influenced by earlier habitual dispositions, which is consistent with Bourdieu (1977, 1979, 1984, 1990, 2001). Yet he and Tversky (Kahneman, 2003) displaced findings from neural research that habits, dispositions and beliefs affect all conscious cognition, such as by not only Edelman (1992) but also Damasio (1994) and Cutting (1997), as well as findings from research on 'connectionism' in cognitive psychology, such as by Dienes and Perner (1996) and Cleeremans (1997), which later were to be confirmed by others such as Glöckner and Betsch (2008), Sadler-Smith (2008) and Glöckner and Witteman (2010).

Intuition as iterative processing

Wittgenstein (1953) not only argued that there has been a misplaced contrast between rules for knowing and intuition. He claimed that

understanding of rules *depends on* intuition. He drew on his experience of teaching for some time in a secondary school in Austria in taking the case of a pupil mastering a series of natural numbers:

> 'Now we get the pupil to continue a series (say + 2) beyond 1000 – and he writes 1000, 1004, 1008, 1012'. We say to him 'Look what you've done!'. He doesn't understand . . . a new insight – intuition – is needed at every step to carry out the order '+ n' correctly.' (ibid., p. 75)

He also placed intuition in the context of having come pre-consciously to understand something by stages, or 'traversing' step by step. Thus, intuition appears to us as if its approach to meaning

> had in its own way already traversed all those steps: that when you meant it your mind as it were flew ahead and took all the steps before you physically arrived at this or that one. (ibid., p. 76)

This concept of intuition as an iterative process has a basis in the analogical non-linear processing of Edelman's (1992) 'neural Darwinism'. For Edelman, the unconscious storing of earlier experience is similar to conscious filing in a database. But the process of interfacing this with current experience, as in Bartlett's (1932 [1995]) concept of schema, is dynamic, whereas a database is not. Memory is the guardian of identity, but drawing on it is a constant iterative adaptation in relation to current experience (ibid.; Edelman, 1992). As evidenced by Edelman (1992), in the event that we cannot currently make sense of something, the unconscious keeps iterating to do so for us, of which we may then come to be aware when it 'gives us' an insight, or intuition.

Wittgenstein had conceptualised intuition 'as the result of crossing different pictures' (Wittgenstein, 1953, p. 77), similar to Bartlett's (1932) case on insight from 'overlapping' schemas. In presenting his case to a conference organised by the Gulbenkian Foundation in Lisbon in May 1998, Edelman (1998) endorsed the correctness of both Wittgenstein and Bartlett in their intuition on this and demonstrated it using a video of neuroimaging, in which brain activity 'fluttered' like a butterfly across different synapses but then found a combination of them which it considered significant enough to 'trigger' into consciousness.

Edelman (1992) also found that neural networks in the brain do two key things. They not only seek to form a synaptic pattern to make sense of the incoming inputs – the 'butterfly effect'. They also offer alternatives rather than a single finite outcome since they continue iterating to try to

find what may be a better cognitive fit. This is consistent with Bartlett's (1932) claims that current cognition can adapt schema and Matte Blanco's (1975) dynamic adaptation of similar or related 'sets' of meanings.

In which case, the intuition which surprises us because it appears sudden is so because this is the moment of our appreciation of the outcome of pre-conscious iteration by which the mind takes less – or more – time to relate current cognition to earlier sense-making. This suggests that intuition is not irrational or sub-rational because it is neither inferential nor explicit in its chain of reasoning. Rather, it is rational because it dynamically interrelates both current and previously processed experience even if we are not conscious of its doing so.

Intuition and tacit knowledge

Intuition – as in finding that we know something, yet may not be aware of how we came to know it – also is consistent with Polanyi's (1958, 1962) concept of tacit knowledge. His tacit coefficient interrelating incoming sense data to 'overlapping' schema of previous experience is consistent with Bartlett's (1932 [1995]) concept of schema and how less-than-conscious symmetrisation makes sense of what otherwise would be chaotic sense data (Matte Blanco, 1975, 1988). In proposing that 'subsidiary awareness may range from a conscious level to levels altogether inaccessible to consciousness', Polanyi submitted that 'we can know how to discriminate a complex pattern of things, without being able to tell by what features we discriminate it' (Polanyi, 1962), which, again, is consistent with what is commonly recognised as intuition (Box 6.1).

Intuition and selection decision-making

As already indicated, Matte Blanco (1975) admitted that the process by which he came to the paradigm of unconscious logic was itself intuitive. This has implications for selection theory in the sense that, within his framework of unconscious logic, if selectors 'intuit' that a candidate may fit a criterion, or a range of complex criteria, this may constitute a rational process by which they draw on past and current experience in a logical manner, which lies in his terms between finite inference and the infinite set containing all possible sub-sets of knowledge and experience, which also is consistent with the claims of Hammond (1996) that caused Guion (2011) to come to recognise that selection theory should recognise, rather than dismiss, intuition.

Box 6.1

Intuition, cognition and understanding

- Intuition appears effortless since it 'just comes to us'. Yet neural research indicates that it is the outcome of pre-conscious processing by the mind. Such processing is referential in relating current to previous cognition, rather than being inferential (Edelman, 1992; McGilchrist, 2009).
- This referential rationality is neither linear nor dyadic nor premise dependent in the manner of Aristotelian logic, but tends to be associative and analogical (Bateson, 1973, 1979; Edelman, 1992; McGilchrist, 2009).
- Neural research, such as that of Edelman (1992), confirms the 'overlapping schema' hypothesized by Bartlett (1995) and the 'iterative' approximation to meaning by the unconscious mind before coming to intuit something, as claimed by Wittgenstein (1953).
- Intuition is not mental arithmetic. It is not 'having a go at something' without reflection, as in guessing. But it may resolve conflicting inferences or be provoked by failing otherwise to understand something.
- The outcome of intuition is instant when it 'comes to us in a flash', such as suddenly coming to understand the principle of a series of numbers, but the process of intuition may be fast or slow, with a long period of incubation, as in the findings of Dorfman (1990) and Dorfman et al. (1996), and as it was in Newton's intuitively gaining the synthesis which founded key principles of modern science (Claxton, 2000; Gleick, 2003).
- An intuition may be right or wrong or more or less right or wrong rather than dyadically either. Intuition can help us answer a question, or see something differently, but also may indicate to us that we may be asking the wrong question or that an earlier perception is mistaken (Wittgenstein, 1953; McGilchrist, 2009).
- An intuition may resolve otherwise-conflicting inferences.
- Intuitive findings are not necessarily biased because they are 'felt', since feeling is a necessary condition of any cognition or recognition (Hume, 1739, 1740; Smith, 1759; Matte Blanco, 1988; Edelman, 1992; Damasio, 1994, 2010; Bartlett, 1995; Goleman, 1996; McGilchrist, 2009).

What is being suggested is that intuition may resolve the range of multidimensional and complex factors that confront managers in final decision-making in personnel selection. But it may also have its own referential logic rather than be illogical, as well as be able to integrate different and sometimes otherwise-conflicting criteria which inference alone has not been able to resolve.

Thus, scores on pre-interview psychometric tests and trainability tests may need to be integrated with perceptions and impressions from interviewing on candidates' adaptability, suitability for group working, creativity and imagination. Yet the evidence from psychometric and trainability tests may be anomalous or contradictory. It may be that a candidate scoring high in terms of an IQ test scores low in terms of a test for group dynamics or emotional intelligence.

Therefore, if selectors 'intuit' at some point in an interview that a candidate does – or does not – 'fit' what is needed to 'do the job', this may represent a wider-ranging less-than-conscious referential rationality in the sense of Edelman (1992), rather than irrationality. It may be the outcome of the process by which the mind iterates multiple, anomalous and sometimes contradictory criteria to arrive at least at a provisional judgement at the end of an interview before being able to reconsider this in post-interview discussion or confirm or disconfirm it during a probationary employment period.

An alternative conceptual framework

Drawing on the previous evidence and analysis, Figure 6.2 suggests an alternative conceptual framework to that of Tversky and Kahneman's presumption that intuition is fast, unreflected and unreliable. To highlight the difference, this is similar in form to their figure (Figure 6.1), but suggests that their dyadic distinction of an intuitive System 1 and a rational System 2 is misplaced and that both cognition and intuition interface conscious and unconscious processing.

What we are suggesting is that Tversky and Kahneman's (Kahneman, 2003) dichotomisation of reasoning and intuition, and thus of conscious and unconscious rationality, is constrained by neglecting:

- Polanyi's claim that there are not two boxes in the mind, one of which is conscious, rational and explicit, and the other unconscious and sub-rational, but that there is a tacit coefficient interrelating conscious and unconscious thought processing (Polanyi, 1958, 1962).
- Bartlett's experimental findings that current cognition and recognition always interrelate with unconscious cognitive schema stored in

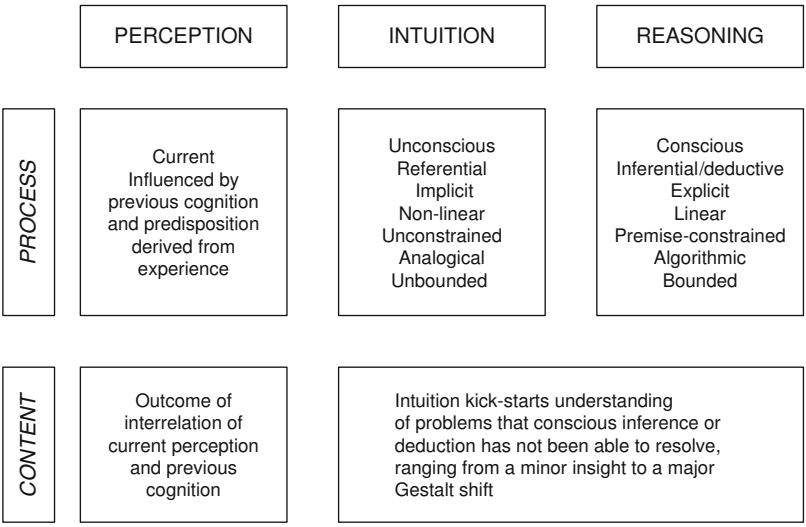

Figure 6.2 Perception, intuition and reason

memory, with a two-way dynamic interrelation of such schema and current perception (Bartlett, 1995).

- Matte Blanco's case that 'unconscious logic' correlates current perception with interrelated sets-within-sets of previously processed meaning (Matte Blanco, 1975, 1988).
- Bourdieu's claim that there are multiple voluntaristic, normative and practical logics derived from the *habitus* of life experience and which influence any current perception (Bourdieu, 1977, 1979, 1984, 1990, 2001).
- The claim of Hume (1739, 1740) that no perception is cognitively neutral rather than influenced by dispositions less than consciously acquired from life and professional experience.
- The findings from neural research of Edelman (1992), Lieberman (2007) and Martin (2007) that current inference always relates referentially to what we already know, or presume to know.
- The findings from the neural research of Panksepp (2003) and others, summarised and extended by McGilchrist (2009), indicating that while the left hemisphere of the brain may be a cognitive miser in the manner assumed by Tversky and Kahneman (Kahneman, 2003), the intuitive right hemisphere is an unbounded cognitive adventurer.

7
Interviewing and Psychological Contract

As outlined earlier, a leading advocate of normative interviewing, Dipboye, has submitted that interviewers should eliminate extraneous conversation with candidates and explain to them that they cannot ask questions (Dipboye, 1996). By contrast with this approach, Herriot (1993) and Fletcher (1997) have recommended that interviewing should be a social process of mutual interaction.

This has force since, as submitted in earlier chapters, in terms of 'the self and the other', our identities and our perceptions of the external world, and of others, are socially constructed. This is centrally relevant to interviewing, where 'the other' not only is the candidate, and whether he or she meets the criteria for person–job, person–workgroup or person–organisation fit, but also may be other members of an interview panel and group dynamics which evolve during the course of panel interviewing; this may also relate to interpersonal dynamics in final selection decision-making.

Some of this is elaborated in later chapters. This one considers whether an interview implies a psychological contract by generating expectations of what an individual can contribute to an organisation and what the organisation can offer to the individual. It relates this to Bourdieu's (1977, 1979, 1984, 1990, 2001) concept of *habitus* and his distinction of practical, normative, dispositional and situational logics, as well as to his conceptualisation of fields or domains and how these may have boundaries that are defined by work and professional identities but also can be compromised or breached by factors beyond an individual's control.

The chapter outlines how there may be divergent views between an employer and an employee, as well as different views of what constitutes a psychological contract. An example is the focus by Denise Rousseau (1989, 1995, 1998) on the perception of an employee that such

a contract has been violated or breached, whereas David Guest (1998, 2003), among others, has stressed that a contract necessarily involves two parties and that their perceptions and expectations, such as in stemming from an initial employment interview, are of equal importance.

In doing so, the chapter considers whether a psychological contract implies more than being offered a job, also a career, as well as what realistic expectations there can be of a career in a world in which downsizing, outsourcing and delayering have come to mean less job security and less prospects of career advancement. It relates such changing job contexts to critiques of concepts such as career anchoring and boundaryless careers. It ends by reporting findings from managers' discourse in panel interviewing and the degree to which this confirmed both principles of psychological contract and the practical, normative, dispositional and situational logics that Bourdieu deploys in his concept of *habitus*.

Bourdieu's *habitus*

Bourdieu's *habitus* concerns the influence of the environment in which we have been born, bred and gained both life and work identities (Bourdieu, 1977, 1979, 1984, 1990, 2001). He conceptualised this in terms of a variety of 'fields' and 'sub-fields' in which people may act in a self-directed manner. For Bourdieu, such fields and sub-fields have boundaries but these may be breached by forces over which individuals may have little or no control. This coincides with the distinction of Briscoe et al. (2006), as well as Belschak and Hartog (2010), between self-direction and other direction, and parallels the concept of breach in theories of psychological contract.

Bourdieu made extensive use of discourse, and its analysis (e.g. Bourdieu, 1977), and his concept of *habitus* is relevant to issues of identity, which has attracted attention in terms of analysis of careers (e.g. Iellatchhitch et al., 2003; Özbilgin et al., 2005). What this chapter suggests is that his *habitus* concept is relevant to both interviewing in personnel selection and theories of psychological contract, and that it enhances understanding of 'the self and the other' and social interaction in terms of dispositional, practical, situational and normative logics. Thus, in his taxonomy

- a dispositional logic concerns how we are disposed to think, say or act;
- a practical logic is how things are done;
- a situational logic is where it is done; and
- a normative logic is how it is assumed that it should be done.

In a manner echoing Bartlett (1932, 1995) and paralleling Piaget (1950, 1953, 1955, 1962), Bourdieu claims that *habitus* 'ensures the active presence of past experiences . . . in the form of schemes of perception, thought and action' and that these influence our perception of what is correct or incorrect more constantly and 'more reliably than all formal rules and explicit norms' (Bourdieu, 1990, p. 54).

He further distinguishes between paradigmatic rules and norms and those which are both positional and situational. Thus paradigmatic rules tend to be institutionalised, whereas situational norms concern a specific context. The grammar of language is by rules, whereas speech is situational. But we may not consciously appreciate the norms that guide our action, nor do we consciously elaborate the implications of how we behave. Such norms are implicit in the sense that we have come to accept them without necessarily being aware of either how or that we did so (ibid.), which is also consistent with the concept of tacit rules and implicit norms (Oliveira, 2007) rather than only the formal rules for interviewing recommended by normative selection theory (e.g. Dipboye, 1994).

Bourdieu also expressed *habitus* and fields in terms of economic, social and symbolic human capital. Iellatchhitch et al. (2003) have allowed that his use of the metaphor of human capital differs from that of Becker (1964). Yet we suggest that how he uses this is closer to Sveiby's (1997) concept of human *assets* while he also, on occasion (e.g. Bourdieu, 1977), uses the term asset rather than the metaphor of human capital.

Thus investing and acquiring capital implies generating an income stream, which was Becker's (1964) initial use of the metaphor in terms of the difference between the incomes gained over a lifetime by high school and university graduates. Whereas Bourdieu stresses that the starting point for *habitus* is early life, in which parents typically give to children without expecting a reciprocal financial return, rather than offering the asset of a supportive family. While the values and dispositions from the *habitus* of early life within family, friends and mentors tend to be less than consciously acquired before later investment in professional education or qualifications, which may generate an income stream. It is also not clear whether fulfilment in either a job or a career is driven only by concern for income, as in the concept of human capital, rather than vocational norms, values and purposeful *eudaimonic* aims to achieve self-fulfilment (Robertson & Cooper, 2011).

It is also not clear whether the choice to invest in higher education or opting for a profession is driven only by concern for income rather than norms, values and aspirations for the self-fulfilment that Robertson and Cooper (2011) have expressed in terms of Aristotle's concept of

eudaimonia or purposeful engagement in both work and life. Thus the values formed within a family, or gained from a peer group or mentors, in early life may dispose one to opt for a job or a career that reflects them, such as teaching, medicine, law or commerce, some of which may be well paid, whereas others, such as primary or secondary school teaching, are less so.

The interview as a psychological contract

A psychological contract differs from a legal contract in that no on writes it down, but rather everyone writes about it. In principle, such a contract can imply mutual trust, shared values and rewards, competence recognition, skill enhancement, and the degree to which these may enhance personal or professional fulfilment for an employee, as well as improve performance for a workgroup or an organisation. Yet psychological contracts have no formal basis either in job descriptions or in employment contracts, nor do they have recourse to law. Meanwhile, job contracts are getting shorter, with less commitment from employers to career development, or even any kind of career.

Hiltrop (1996) has countered this by suggesting that a new psychological contract emerged from the 1980s in which, despite less job security, while no one could expect to be employed for longer than he or she adds value for an employer, the implication was that in return the employee had the right to expect interesting and rewarding work, as well as get the training and experience that may enhance employability elsewhere. To which Armstrong has responded that 'this could hardly be called a balanced contract' since 'employers still call the shots except when dealing with the special cases of people who are much in demand and in short supply' (Armstrong, 2002, p. 50).

In addressing the state of psychological contract in relation to job market changes over the previous ten years, and projecting it a decade forward, Herriot and Pemberton (1995) have also been forthright in claiming that cases of peremptory dismissal even for previously high-performing workers have become common, generating perceptions of inequity among other employees when seeing colleagues paid off at minimal expense while those responsible for firing them, or for organisational failure, walked off with golden handshakes.

They also found that employee voice was drowned out by managerial rhetoric, which sought 'to persuade them that reality is the opposite of what they knew from their own experience to be true' (ibid., p. 32). To this situation, they responded with three lines of advice: (1) 'get ahead',

so long as this does not imply presuming promotion; (2) 'get safe', despite the fact that 'few innovation sparks fly' for the organisation if you do so, or (3) 'get even' by putting less into the job (ibid., p. 33).

Perceptions and presumptions

Spindler (1994) has claimed that a psychological contract concerns tacit employee expectations and aspirations but recognises that these may not be clearly understood by either employees or by employers when selecting personnel. Armstrong (2002) echoes the same point in claiming that the concept means that

> employee-employer expectations take the form of unarticulated assumptions. The psychological contract governs the continuing development of the employment relationship, which is constantly evolving over time. But how the contract is developing and the impact it makes may not be fully understood by any of the parties involved. (ibid., p. 48)

Such claims that a psychological contract may not be fully understood either during or after an employment interview is consistent with tacit 'subsidiary awareness' (Polanyi, 1958, 1962, 1968) and the 'sensing' and 'feeling' of Bartlett (1995) in his experimental work on cognition and recognition, which showed that if there is a sense of breach of such a contract, people may well intuit it rather than be able to immediately explicate it.

What underlies presumption of a psychological contract therefore may be tacit rules and implicit norms of what is deemed reasonable, 'legitimate' or 'illegitimate' (Oliveira, 2007), which also is consistent with the case of Habermas (1976) that a norm presupposes an implicit rationale or logic. But, thereby, unlike the focus on explicit criteria in normative selection theory, a psychological contract will tend to be implicit in a selection interview.

Conway and Briner (2005) have claimed that there have been several shifts in much of the literature on psychological contract since the publication of the work of Denise Rousseau.

- One such shift was from expectations of mutual benefit from such a contract to concern with what promises or commitments an employer may have offered.
- A related shift was to focus on an individual's perception of what such a promise or commitment might mean.
- Another was a focus on cases of violation or breach of the presumed contract by an employer, and where violation could damage it, but a breach end it (Rousseau, 1989; Conway & Briner, 2005).

But Herriot and Pemberton (1997) have claimed limits to Denise Rousseau's (1989) view of psychological contract:

> The psychological contract may be defined as the perception of both parties to the employment relationship . . . This definition is the classic one of Argyris (1960) and Schein (1978), and differs from that espoused by Rousseau and Parks (1993). These latter authors maintain that the contract is only in the mind of the employee; they therefore have little to say about the contracting process. (Herriot & Pemberton, 1997, p. 45)

Guest (1998) also has submitted that a one-sided contract is inherently contradictory. Whether a contract is explicit or implicit, it concerns two parties, and how each of the parties regards this reciprocal process is of equal relevance (ibid.). He also has stressed that if a psychological contract is two sided, there can be mutual advantage for both managers and employees, and has evidenced that this can be reinforced by commitment to human resource management practices by managers (Guest, 1998, 2003, 2004a, 2004b; Conway & Briner, 2005).

There are parallels in these regards with theories of social contract which emerged from the Enlightenment. The social contract theory of John Locke (1690) concerned what people expected from governments including that, in return for being taxed, they also should be represented, although he also recognised that such a presumption could well be tacit until it might be breached (Oliveira & Holland, 2012).

Rousseau's (1762) social contract was different in that he envisaged it for entirely new societies in which people would pre-agree what they wanted for such a society and in which their legislator was less a lawgiver than what now would be deemed a management consultant who would help them surface what might be tacit values, dispositions and beliefs and embody them in a written contract (Oliveira & Holland, 2012).

Grant and Hofmann (2011) recognise that interpersonal dynamics in employer–employee relations influence personal and professional identities. Paauwe and Boselie (2005) also have indicated the need to pay more attention to employee perceptions which relate to issues concerning perceptions of fit, such as those of job fit and organisation fit (Schneider, 1983, 1987, 1994, 2001, 2008), as well as of cognitive fitting or cognitive dissonance (Oliveira & Holland, 2012). Van Maanen and Schein (1977) have analysed 'syntheses' between individual and organisational interests and values, which Schein (1978) called 'matching processes' and which are consistent with Matte Blanco's (1975) concept of symmetrisation.

Yet it may be that there is an increasing misfit between what an employer expects should be job fit and what an employee expects should be a career (Ashforth & Mael, 1989; Hinkle et al., 1989; Ashforth & Gibbs, 1990; Dutton et al., 1994; Humphreys & Brown, 2002), which may give rise to the perception of breach of psychological contract (Fontes da Costa & Oliveira, 2014).

Career anchors and plateaux

Perception of job or career misfit may be slight without necessarily violating a psychological contract or motivating the desire for a career move. Or, it may be severe, with powerful affects for individuals or workgroups (Humphreys & Brown, 2002). Some literature concerning careers (e.g. Schein, 1978, 1990) had assumed that successful candidates would be 'anchored' by a career ladder and promotion prospects. In practice, downsizing, outsourcing and delayering, with higher levels of unemployment and competitive pressures from globalisation, have challenged this assumption.

Thus graduates who a generation ago could expect professional careers within the boundaries of one institution now commonly face the prospect of none. Many young people face a job market in which 'picking-a-career' is a shrinking privilege and in which they are glad enough to 'pick-up-a-job'. This is part of the stalling of the career escalator on which earlier generations of either white- or blue-collar employees could expect to work for lifetime in what might be routine and alienating jobs but also expect on a transactional basis that they thereby would gain a higher standard of living and quality of life.

Recognising this change, Rodrigues et al. (2013) have claimed that careers no longer can be usefully assessed by benchmarks such as a higher salary or promotion and have offered the concept of career orientations rather than career anchors. The change also has given rise in career literature to concepts such as that of a 'boundaryless' or 'portfolio' or 'Protean' career, even if the emerging interest in allegedly 'boundaryless' or 'Protean' careers has been criticised by Arnold and others on the grounds that Proteus changed shape in order to avoid being captured (Arnold, 2001; Arnold & Cohen, 2008, 2010). Meanwhile, Mitchell et al. (2001) have argued that successful candidates for a job may come to feel trapped if the job does not offer realistic chances of enhancing their skills or work experience, or offer a promotion.

This relates to the concept of career 'plateauing'. Some literature has claimed that this need not be negative if employees gain sustained interest and support from either supervisors or their line managers (Gerpott

& Domsch, 1987; Milliman, 1992; Chay et al., 1995; Chao, 2008). Tremblay and Roger (2004) found that participation in decision-making, job scope and role may also compensate for career plateauing in the sense that employees do not therefore feel 'forced' to seek a career move.

One of the concepts consistent in principle with either changing boundaries or no boundaries is that of the portfolio career. Baruch (2006) has deployed the concept of a 'portfolio' career in terms of someone who is relatively autonomous, of which examples could be an independent accountant or a freelance actor or musician who can decide how, when and where to work. But such careers still have boundaries in terms of professional skills and experience in a manner consistent with Bourdieu (1979) in that while a professional musician may become a conductor, a theatre or film director is unlikely to do so, nor the conductor of an orchestra become a film director.

Besides these considerations, a career, if one can gain it, may not be one's first choice. A case study in Portugal by Fontes da Costa and Oliveira (2014) found that nearly half of those training to be pharmacists did so since they did not gain sufficient grades in secondary education to qualify for medical school. Similarly, in the case of retail pharmacists, Fontes da Costa and Oliveira found relevance in Bourdieu's (1979) concept of breaching boundaries since the retail pharmacists resented commercial pressures to sell non-pharmaceutical products which compromised their professional identity and which, though they did not conceptualise it as such, also was consistent with a sense of breach of psychological contract (Fontes da Costa & Oliveira, 2014).

Theory and practice

If the outcome of a selection process is successful for a candidate, and if this may be deemed the basis for a psychological contract, it implies that the interview is more than whether or not selectors are concerned to determine criteria such as job fit, workgroup fit or organisation fit such as have been outlined in Chapter 1 and that they may seek to make sure during an interview that a candidate understands what really is meant by a job in varying operational and organisational contexts and can 'contract into' rather than later 'opt out' from it.

One of the main findings from the case studies reported in Chapters 9 and 10, of selection procedures for the job of a TV operator, is how managers as selectors if without any conscious knowledge of theories of psychological contract or of Bourdieu's practical, normative, dispositional and situational logics were highly concerned with the issues addressed

in them, as well as those concerning 'anchoring' and 'plateauing' in the literature on careers, though they were not familiar with these concepts.

Thus the managers used a major part of their panel interviews to explain to candidates, in detail, what accepting the job would mean in terms of what Bourdieu deems practical and situational logics. For example, camera work in outside broadcasting could be challenging, and self-directed, not least if this involved filming a crowd in a demonstration, where the camera operator might have to decide what to film when a journalist from the organisation was focused on interviewing either an individual or a group and could not therefore readily 'see' what was emerging or happening elsewhere in a crowd.

But, inversely, studio work, such as a panel discussion, could be routine to the point of boring or other-directed, in the sense of needing to take an instruction from a programme director and fulfilling it in a millisecond without challenge or discussion, even if discussion might be possible after the event.

Or, in terms of normative logic, a successful candidate should not expect to work only from 9.00 a.m. to 5.00 p.m. but would be expected to work overtime, perhaps also on multiple shifts, and be called on to work at weekends at short notice. Also successful candidates should be prepared to work under any weather conditions, such as waiting for hours in the rain for a minister to emerge from a cabinet meeting and then needing to catch at least a glimpse of him or her on camera. And be prepared to work anywhere in the organisation at short notice, rather than only in one operational unit or workgroup. Stressing also, in terms of dispositional logic, that they needed to both understand and accept this.

Moreover, in terms of psychological contract, though not being familiar with it, the managers were concerned that a successful candidate should not expect that gaining a job offer is the first rung on a career ladder rather than doing the job well in its operational and organisational context and then, perhaps, but not necessarily, being considered for promotion. There was, therefore, a concern that such a candidate should not feel that not being promoted and therefore 'plateaued' was a breach of psychological contract.

Similarly, though not being familiar with the theory of career 'anchoring', the managers were centrally concerned to ensure 'anchoring' in the sense that if a candidate accepted an offer to train, and were to pass the training course, he or she would then accept a job offer and that it would be with their organisation, rather than with a competing broadcasting company, since the training course was intensive in terms of the opportunity cost of staff time and they needed to retain candidates after training.

8
Tacit Knowledge and Implicit Learning

Previous chapters have made claims for the importance of tacit knowledge and implicit learning. They have cited the case of Nonaka and others that tacit knowledge can be surfaced through discourse (Nonaka, 1994; Nonaka & Takeuchi, 1995; Ichijo & Nonaka 2007). They have recognised that there has been challenge to this from Akbar (2003) and Gourlay (2006), who have claimed that any 'know how' combines both tacit and explicit knowing domains. They also have allowed that there is a debate on how implicit is implicit learning (Berry, 1993).

But the chapters countered both Akbar and Gourlay by Polanyi's (1962) stress that tacit and explicit knowing domains are constantly connected by a 'tacit coefficient'. This reasoning had been anticipated by Hume (1739, 1740) in his claim that current cognition always connects with what 'already is antecedently present to the mind', which has since been confirmed by findings from connectionist theory in cognitive psychology as well as by neural research.

The chapters have also drawn on the same principle in seeking to address the debate on implicit learning, as in the claim of Cleeremans (1997) that there appears to be a representational continuum between conscious and unconscious processes and that this is informed by connectionist models in cognitive psychology. This is also consistent with the late recognition by Guion (2011), drawing on Hammond (1996, 2000, 2007), that cognition 'oscillates' between conscious and less-than-conscious processes.

Learning from work and from life

This chapter supports the claim that identifying both tacit knowledge and implicit learning is feasible through discourse and its analysis and does so by reporting on the methodology and findings from

a four-country case study which was the outcome of the European Council's recommendation of lifelong learning in the Lisbon Agenda 2000. A premise of the study was that people are 'the oracle of their own experience' even if, unlike the classic oracles, initial ambiguities in meaning could be unintentional and that interviewees could need time to gain a closer approximation to 'what they really meant'.

The main working hypothesis of the study was intuitive: that informal learning-from-life was likely to rank more highly than non-formal learning-from-work and that both together were likely to exceed learning from formal education and training. This intuition informed Figure 8.1, which was used in the study as a hypothetical illustration for introducing its interviewers to the concepts of informal learning-from-life (LfL), non-formal learning-from-work (LfW), and contrasting this with lifelong learning (LLL) as formal re-education or re-training.

As on the right-hand side of the figure, formal education and training are explicit and conscious. By contrast, as on the left-hand side of the figure, implicit learning is semi-conscious or unconscious, and ranges from childhood, through recreation and personal relationships, to non-formal learning-from-work. The smoothness of the curves was figurative, to make these distinctions a working hypothesis. The lines concerning formal education represent starting elementary school at or

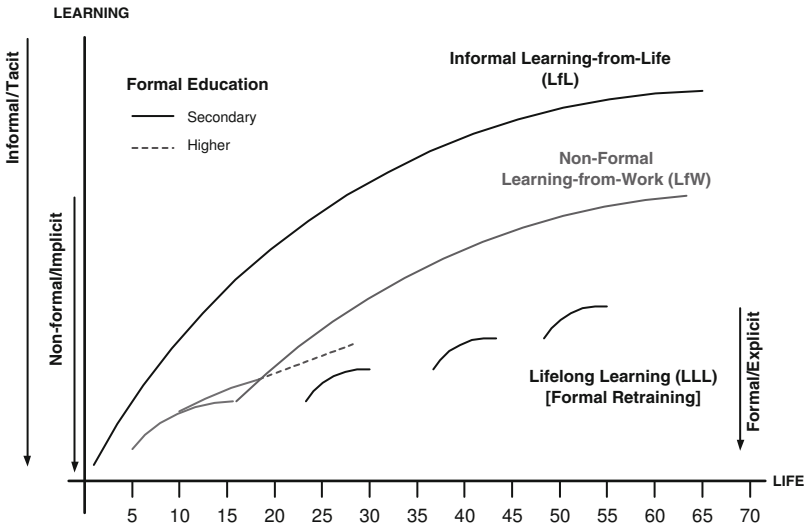

Figure 8.1 Learning from work and learning from life

before the age of 5 years and then distinguish those leaving school at the age of 15 or 16 years and those who (as in the dotted line) continue into higher education. The curves on the lower right of the figure stylise Masters, MBA or other postgraduate courses, or re-training courses.

As indicated in Figure 8.2, it was suggested to researchers that they should relate discourse on informal learning-from-life (LfL) and non-formal learning-from-work (LfW) to the 'domains' of implicit or tacit learning from childhood, recreation, relationships and work and where the domains on the right of the figure represent what Bourdieu (1984, 1990, 2001) has conceptualised as overlapping 'fields' of experience, including childhood, recreation, personal relationships and work. As indicated on the left of the figure, the training for the project included the principles of Argyris and Schön's (1974, 1978, 1996) reflective practice and the degree to which the interviews could embody this. The researchers were also introduced to the difference between structured and semi-structured interviewing.

The training also included introduction to the methodology outlined in earlier chapters, including Matte Blanco's (1975) sets and sub-sets of meaning within both conscious and unconscious logic, Polanyi's (1962) case that there is a tacit coefficient in any statement, Wittgenstein's (1953) claim that the traversing of the mind in seeking meanings may be iterative rather than direct and the confirmation of this from Edelman's neural research (1992), and Bartlett's (1995) claim for 'overlapping schema'. It also concerned the case that tacit knowledge (Polanyi, 1962) can be surfaced and implicit learning (Cleeremans, 1997; St. John & Shanks, 1997) identified, as well as the concept of 'implicit logic' in discourse, derived from case study findings (Oliveira, 2000, 2001, 2002, 2005, 2006), which are reported later.

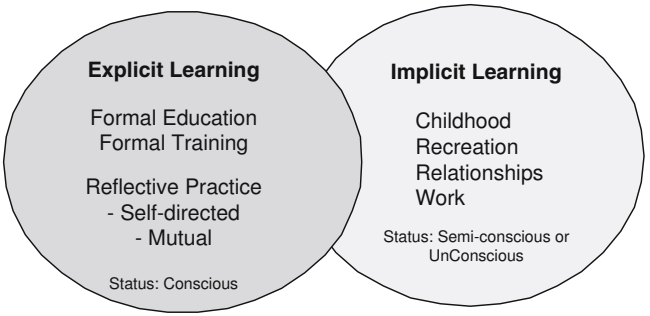

Figure 8.2 Domains of explicit and implicit learning

Making sense of experience

To make sense of experience and to operationalise concepts such as learning-from-life or learning-from-work meant identifying implicit meanings and sets of meanings in the interface between what is conscious and less than conscious. Training interviewers in this took time before they could gain initial confidence, but were helped by drawing on standard sets and sub-sets of meaning from the theory of personnel selection such as the set of knowledge–skills–abilities (KSA) or the set of values–beliefs–personality (VBP) and relating them to the main criteria domains of childhood, education, relationships, recreation and work experience.

Figure 8.3, which was also used in the training of interviewers, illustrates this with two differences from the recommendations for interviewing in mainstream normative selection theory. The first was inverting its conceptual set of knowledge–skills–abilities in favour of knowledge–abilities–skills (KAS) on the grounded basis that no one progresses from skill to ability rather than from ability to skill.

The second, consistent with the aim that the interviews should be a social process of mutual learning (Herriot, 1993, 2003; Fletcher, 1997, 2003), was to invert the recommendation in normative selection theory that interview discourse should not be led by the interviewee but rather be led by the interviewer (e.g. Anderson, 1997; Guion, 1997). This contrast is simple, yet also was fundamental since what was being sought in terms of identifying learning-from-life and learning-from-work was known better by the interviewee than the interviewer.

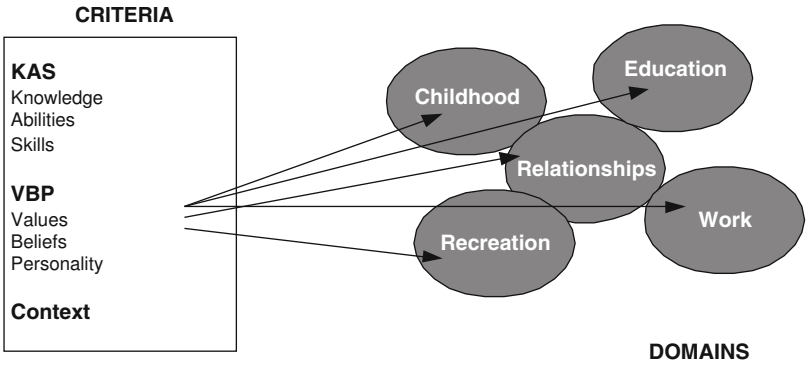

Figure 8.3 Identifying learning from work and learning from life

Most of the trainee interviewers grasped this readily enough. Some found it difficult not least where they had earlier experience of interviewing a candidate for a job and could not readily 'throw off' the assumption that an interview should be led by them and conform with a 'check list' of questions and criteria as if this were a 'spoken questionnaire'.

The training in coding discourse also needed its own progression from knowledge of how to do it to ability and then skill. This meant successive comparison of interviewers' codings to gain higher degrees of intercoder reliability, and iterative learning to ensure that the interview covered the main criteria 'domains' (Figure 8.3).

Yet, while several trainee interviewers found coding discourse difficult and their iterative learning of this was slow, several took to it with ease and became key players in further training of interviewers. Notably, one of the most brilliant, a few years earlier, had been a member of a junior national chess team and therefore was accustomed to interfacing conscious and less-than-conscious logic, as in sets-within-sets of meanings implicit in individual moves in chess which skilled chess players rarely consciously conceptualise rather than drawing on tacit knowledge and implicit learning as they make them (Kay, 2008).

Fractal insights

A key recommendation in training interviewers in discourse analysis was not to 'skip' or try heuristic 'shortcuts' in the manner of Tversky and Kahneman (Kahneman, 2003) when reading through transcripts of interviews, nor only look for confirmation of interview notes, but also to look for fragments of discourse which the interviewee may have considered 'so obvious' as not to be of much interest, but which could prove to be fractals of a larger picture of their in-depth tacit knowledge, latent abilities and implicit skills.

This was consistent with and guided both by the concept of fractals in Mandelbrot (1979, 1982) and by the recommendation of Davies and Harré (1990) that fragments of discourse embedded in the participants' autobiographies, as they recounted them, could be the clue to them.

One of the most striking examples of this was with an unemployed single mother in her forties who had left school without any certificates but was known to local social workers to be highly effective in representing single parents such as herself on a major housing estate. When asked by the interviewer how she did this and on what issues, she shrugged and answered 'all the usual things – bills, benefits, tax and such like'. Whereas a middle-class professional might immediately pass

a tax return claim to an accountant rather than even open it, she did not regard this as a skill rather than an ability, and something she just 'got on with'.

Starting from the self

It also was stressed in training interviewers that they should start by making plain to interviewees that what the project aimed to gain was about themselves and their lives, and what they had learned from childhood, education, recreation, relationships and work. These were the criteria domains of the project, and introduced as such, but interviewers were trained to allow interviewees to traverse across such domains. They should guide the discourse from one of them to another to ensure a comparable degree of balance between them (Figures 8.2 and 8.3 above) only if this were needed.

Yet while opening with questions about background, where the interviewees came from, and who or what influenced them in childhood, it was found in terms of self-direction that they often rapidly traversed such domains without much prompting precisely because reflection on experience tends to interrelate childhood and education, recreation or relationships and work, much in the manner of the 'connections' claimed by Hume (1739, 1740), the overlapping schema of Bartlett (1932 [1995]) and the interrelated sets of meanings of Matte Blanco (1975). It was also found that such discourse rapidly revealed the values, beliefs and dispositions that both Hume (1739, 1740, 1748) and Adam Smith (1759) claimed to influence cognition and understanding, as also later stressed by Bourdieu (1984, 1990, 2001).

Starting one-to-one discourse with someone's childhood and their background had the virtue of opening it with something which interviewees knew better than the interviewer, i.e. themselves. Opening with questions such as 'Where were you born? 'Where did your parents come from?', 'Who influenced you most when you were a child?' and 'What did you learn from them?' allowed for what Mouzelis (1995), Harré and Gillet (1994), and Ashforth and Johnson (2001) have recognised as multiple identities of 'the self' in different contexts, and gave interviewees confidence because from the start they knew that the interview was about them and who they were rather than only about what they could do.

None of the nearly 240 interviews in the four-country studies 'failed' in the sense that an interviewee found the questioning too intrusive and asked to end it, nor in the sense that it was not possible to draw up a skill and personality profile relevant to recommending customised

training to extend their informal learning-from-life or non-formal learning-from-work, which had been one of the main remits from the European Commission. Initial hesitation in the interviews in some cases was countered by gained self-confidence as interviewees realised that they were not being assessed or tested, but rather that the interview was a process of mutual learning.

We were helped in this by earlier giving them a leaflet whose cover had someone asking 'What can you do?' to which the other person answered 'Do you know who I am?' This indicated that the interviews were about them, rather than a personal assessment or psychometric test, and worked well. Many interviewees, on finding that time was up, regretted that it was so, commenting typically that they could not remember when they had had such a chance to talk about what was really important to them either in life or at work. Several seized the chance to carry on for more than the allotted hour if the next interviewee did not turn up on time, which caused us to reschedule more than an hour for others to allow both for the overrun and the interviewer's initial note-taking of the main outcomes of the interview, rather than cutting interviewees off in their flow.

Case study A – Identifying lifelong learning

Surfacing tacit knowledge and implicit learning

The case study included 30 interviewers who interviewed 238 persons in four countries (Portugal, Italy, Ireland and Hungary). The number of interviewers was high since one of the aims of the project was to assess the feasibility of training people to identify informal and non-formal learning. The project was funded by the European Commission's Socrates-Leonardo Programme.

The interviewee sample was age and gender balanced. Of the sample, 45 per cent were fully employed, 15 per cent were employed part-time and 30 per cent were unemployed. The data collection was by one-to-one audiotaped semi-structured interviews around the five domains of experience including childhood, education, recreation, relationships and work (Figure 8.3). Explicit learning through formal education and training was distinguished from implicit learning which either was informal or tacit (Figure 8.2).

For data analysis, interview discourse was analysed by a customised coding system developed within the above approach. The criteria for coding were KAS (knowledge, ability, and skills), VBP (values, beliefs and personality) and Context, including both the context of the interview

Table 8.1 Attributions of learning from formal education, life and work (%)

	Education	LfL	LfW	LfL + LfW
Specific knowledge	32.4	25.6	17.6	43.2
General knowledge	26.1	40.4	5.5	49.9
Abilities	14.3	39.4	20.6	60.0
Skills	14.3	33.1	23.5	56.6
Values	2.9	75.6	8.8	84.4
Beliefs	2.1	20.2	6.1	26.3
Personality	5.5	19.7	9.7	29.4

Education: formal education and training; LfL: informal learning from life; LfW: non-formal learning from work.

Source: Oliveira (2003). Percentage figures do not round due to other attributions of learning.

and that of the learning-from-life and learning-from-work trajectories of the individual interviewees.

As summarised in Table 8.1, the findings from the case study indicate that most learning and acquisition of personal attributes are gained from life or work experience, and that such learning is informal or non-formal in nature. The findings also thereby confirm the claims of Bourdieu (1977, 1979, 1984, 1990, 2001) on the influence of *habitus* or life experience on the acquisition of values, beliefs and personality.

Findings and implications

The studies confirmed the intuitive hypothesis which informed Figure 8.1, indicating that most learning is gained from life or work experience rather than formal education or training. In the case of acquiring values, this was startling, with three-quarters gained through learning-from-life and more than four-fifths through both and learning-from-work. Skills learned from life (at a third) outstripped those learned from work (less than a quarter) and those gained from formal education or training (less than a seventh).

General knowledge learned from life, at two-fifths, outstripped that learned from formal education or training. Attributions of specific knowledge to formal learning were only a third, whereas those of informal learning-from-life and non-formal learning-from-work were over two-fifths. The remaining learning of specific knowledge was from reading books or articles, or gaining it from the mass media, whether in print, or radio and television, or accessing it on the Web.

Similar findings on skills in the case of learning-from-work rather than formal education were the outcome of a British survey by the National

Institute of Economic and Social Research (NIESR) (Elias & Purcell, 2004). This determined that, within six to seven years of graduation from a university, and after graduates had been able to settle into a job, gaining the skills needed to do it well could take twice to three times the skills allegedly learned in higher education.

There were differences in the methodologies of the NIESR and our own case study. Elias and Purcell did not distinguish knowledge or abilities from skills, nor seek to identify the degree to which values, beliefs or personality had been influenced by work experience rather than formal learning. Inversely, our own case study did not seek to distinguish traditional professions, such as doctors or lawyers, from new professions, or niche professions, as Elias and Purcell did.

The two studies also started with different research aims. Our own was concerned with identifying the roles of tacit knowledge and implicit learning and their relation to informal learning and formal education. The study of Elias and Purcell sought to determine whether the expansion of higher education pays in the sense of still-commanding premium incomes, or whether graduate earnings had been devalued by greater supply relative to demand with an expansion of university education in the UK. Their findings indicated that Becker (1964, 1975, 1993) was right in presuming that investment in higher education could be correlated with higher income later in life, but not in the degree to which he claimed so.

Both our own case study and that of Elias and Purcell came to similar conclusions concerning the differences between formal education and work experience in generating skills relevant to work. Learning from work experience outstripped formal education in both case studies by similar ratios. Both thereby disconfirmed Becker's (1964) claim that experience was too difficult to measure. Both also indicate that Becker's concept of human capital as a stock of investment in formal education misses that the flow of experience of informal or non-formal learning from life or work contributes far more to learning than formal education alone (Oliveira & Holland, 2008).

9
Rethinking Selection Theory

Previous chapters have recognised that normative theory is the 'high road' of personnel selection. No one should go 'off road', traverse uncharted terrain and start asking supplementary questions of one candidate rather than others. Selectors should conduct interviews in the same way for all candidates. Fractal rather than general indications of candidates' attributes should not be followed up. Selectors should stick to the normative 'Highway Code'.

This chapter qualifies this. It does not submit that a structured approach to selection *procedures* is misguided. But it draws together some of the earlier claims concerning the interrelation of conscious and unconscious processing and the centrality of sensing, feeling and intuition to both cognition and understanding. It finds scope for a combination of both structured and semi-structured interviewing but submits that normative theory is misguided in claiming that all interviewing should be rigidly structured.

Sets-within-sets of meaning

Earlier chapters, following Hume's (1739, 1740) influence on Schopenhauer (1818) as well as on later theorists of phenomenology such as Husserl (1939) and Merleau-Ponty (1962), have stressed that how we tend to perceive relates to what already is antecedently present to the mind. It has related this to philosophy and psychology as well as to findings from neural research.

What this chapter seeks to demonstrate is that the concern of Bourdieu (1984, 1990, 2001) with 'fields' and 'sub-fields' of understanding in terms of practical, normative, dispositional and situational logics

is consistent with both Bartlett's (1932 [1995]) concept of schema and 'overlapping schema' and Matte Blanco's (1975) parallel conceptualisation of sets, sub-sets and sets-within-sets of meaning which interviewers may have tacitly and implicitly acquired through both learning from work and learning from life.

For example, one of the gains from 'knowing already' from life experience is that we do not have to infer everything all the time. How I 'know already' in the sense of Bartlett's schema is knowing that the child I find in the kitchen in the morning is my child rather than a child, without having to infer this. I know it within multiple sets-within-sets of referential meanings and feelings (Matte Blanco, 1975, 1988) of which I do not need to be wholly conscious, even though I may immediately infer from his or her state of dress that he or she risks being late for school.

Selectors do not know candidates in the same way when first encountering them in an interview. Yet it is arguable that the same interrelation of conscious and unconscious processing is involved. If Polanyi (1962) was right, there is a tacit coefficient to any statement or any knowing. If Bartlett (1932 [1995]) was right in the conclusions he drew from his experimental findings, feelings are integral to cognition and recognition.

Selection of candidates nonetheless is time constrained, whereas experience of life is not, which may be why managers as selectors may need to iterate and traverse different explicit or implicit criteria domains to gain a better approximation of their cognitive fit with candidate fit while drawing on tacit knowledge derived either from their earlier work experience or of interviewing, or both, to do so.

It may also be found in interviews with managers on which criteria are the most important for them in selection that they are unwilling to consciously rank individual criteria since so many of them interrelate different sets-within-sets of meanings rather than only one (Matte Blanco, 1975) and also overlap with other schema central to sense-making (Bartlett, 1932 [1995]; Edelman, 1992).

This may reflect managers sensing from grounded experience that a simple ranking of the attributes of a candidate cannot approach the complexity of the interrelations in cognitive and candidate fit that they need to reach what Guion (1965) rightly enough recognised needed to be a 'final integrating judgement', which also may relate to different levels, and contents, in cognitive 'fitting' concerning the attributes of candidates in terms of role fit.

Level, content and role fit

We suggest that the concept of role fit rather than narrower job fit concerns candidate attributes in relation to multiple operational and organisational needs on which selectors may need to assure themselves. A conceptual framework for this is indicated in Figure 9.1.

On the left side of the figure, role fit relates the two main categories in mainstream literature of person–organisation fit and person–job fit, yet also re-designates the latter as person–role fit. This is both data driven from the case study reported in the next two chapters and theory driven in the sense that it matches the concern in the selection theory summarised in Chapter 1 to move beyond narrow definitions of job-fit to allow for varying operational needs and contexts such as workplace and workgroup fit (e.g. Schneider, 2001; Van Vianen, 2001; Herriot, 2003).

Figure 9.1 groups the two main sets of criteria concerning the personal attributes of candidates in terms which are standard in selection literature: (1) knowledge, abilities and skills (KAS) and (2) values, beliefs and personality (VBP), with the difference, as in the case study on tacit knowledge and implicit learning reported in Chapter 8, of a KAS sequence of knowledge, abilities and skills rather than the more familiar KSA of knowledge, skills and abilities, on the same grounded basis that no one acquires skill before ability.

In cognitive terms, managers as interviewers may be entirely unconscious of such sets of criteria unless they have been trained in selection

INDIVIDUAL ATTRIBUTES / **ROLE FIT**	**Technical** Knowledge, Abilities and Skills (KAS)	**Socio-psychological** Values, Beliefs and Personality (VBP)
Organisational Needs *Person–Organisation Fit*	(A) Organisational Capacity	(C) Organisational Culture
Operational Needs *Person–Operation Fit*	(B) Operational Capability	(D) Operational Climate

Figure 9.1 Organisational and operational role fit in selection
Source: Own formulation

theory. But they may be found to be implicit within their discourse and to reflect both inference and also less-conscious referential processes as they seek to determine consonance or dissonance between attributes of candidates and what is needed for operational or organisational fit.

Also, while the two main criteria domains of KAS as 'technical' and VBP as 'socio-psychological' may be in different conceptual boxes as in Figure 9.1, the mind is not (Cleeremans, 1999). It may therefore be found from discourse analysis that managers as selectors consciously or less than consciously range across either a KAS or VBP criteria domain or analogically between them in the manner of Bateson (1973, 1979), or overlap them, as in Bartlett's (1995) findings from 'overlapping schema'.

Figure 9.1 therefore relates content, level and cognition to role fit in terms of four main criteria domains, none of which may be consciously conceptualised by managers as selectors, yet each of which may be found to be implicit in their selection discourse.

Thus managers with direct operational responsibilities may be more concerned with operational capability (box B in Figure 9.1) and those with organisational responsibilities may be more concerned with organisational capacity (box A in Figure 9.1). It may be found that managers as selectors are also concerned with issues concerning organisational and operational culture (boxes C and D in Figure 9.1).

Yet it may also be that even operational managers are more concerned with organisational capacity and person–organisation fit than only with operational capability and person–operation fit, depending on different stages of a selection sequence.

Thus role fit at organisational level concerns not only the explicit or implicit mission of an organisation and its image and relations with a wider public, but also whether a candidate is deemed by selectors to be able to fit and do well anywhere in the organisation rather than only in one unit or department within it, such as with someone who may be needed to work anywhere within an organisation rather than in a Taylorist sense doing one job and one job only (Taylor, 1911). By contrast, role fit at operational level concerns specific operational needs within the organisation which may be either Taylorist or multitasked and multiskilled.

Such definitions nonetheless are abstract and merit data-driven illustration from samples of actual discourse by managers concerning the criteria for selection of TV technicians in a broadcasting corporation reported in more detail in the next chapter. These are also directly relevant to the issue raised in Chapter 7 concerning psychological contract in the sense that, even if managers as selectors never have encountered

the concept, nor have time to consider the literature concerning it, they know both tacitly and implicitly that it is vital for a candidate to 'contract into' what is involved in accepting the multiple implications of accepting the offer of a job.

When questioned on the criteria that were important in selection in a one-to-one interview, a manager stressed:

> The General Knowledge Test stresses current day-to-day knowledge plus a bit of history. If our mission is information, we need people with this kind of general culture. If someone doesn't know, for example, that the government fell, and goes to interview a politician, what are they going to think about my company?

Such a manager may never have conceptualised the difference between job fit and organisation fit, yet be clear on what both imply in submitting that to a candidate during a panel interview:

> We know that you have done a lot of film and you performed well on your visual and audio tests. But have you grasped that being a TV operator is not simply sight and sound? Do you realise that you may have to do any job anywhere in the organisation? We might need you in archives, or costume, and to train you to be able to do this.

Managers may not be consciously aware of concepts such career hierarchies, or ceilings, or organisational culture, yet by implicit learning derived from operational experience address them such as the following question to a candidate during a panel interview:

> We know that you are doing your degree course in Business Studies. Could you accept that you remain a TV operator when you have got it? What if we can't promote you when you graduate? Could you face up to this?

Then, in the following response to the candidate's answer:

> Well, we want to make clear that this may be a problem. We can't guarantee you promotion just because you graduate. And we would not want you to have a chip on your shoulder because of it.

Managers also may be less than aware of the difference in selection theory between organisational and operational culture, yet may be well

aware from experience that both may relate more to personality than simply job fit, as with the statement and following question by a selector to a candidate during a panel interview:

> Television is a creative medium, but not everyone can be creative all the time. Sometimes you may be spending hours in a studio just taking orders on cue from the director. Do you realise this? Could you cope with it?

The Annex at the end of this volume cites these and other examples of explicit and implicit criteria and sets of criteria in research interviews with managers, information to candidates, questions to candidates, and statements to and questions by other interviewers in post-interview decision-making. Detailed analysis of such sets and interrelated sets of meanings implicit in discourse also is given in the account of the case study in the following two chapters.

A background to these findings lies in the case of Polanyi (1962) that conscious inference and subsidiary awareness always have a tacit coefficient, the claim of Matte Blanco (1975) that consciousness always interrelates with the unconscious, and the findings of Edelman (1992) of an interrelation of interference and referential rationality as well as Bartlett's (1995) finding of 'overlapping schema'.

More directly, in terms of selection theory, it may also be found that managers need a semi-structured phase of a panel interview to gain a closer 'iterative' integration of multiple dimensions of 'cognitive fit' and 'candidate fit', not least when inference itself may mean otherwise-unresolved conflicting attributes of candidates.

The interview as iteration

The concept of iteration has played a central role in the analysis of earlier chapters concerning intuition and approximating understanding. In terms of grounded theory, iteration may mean discarding an initial hypothesis and changing direction.

As already recognised, while the 'high road' of structured interviewing for some time enjoyed claims to higher predictive validity, the conditions in which this may have been the case were highly context-specific. For example, structured interviewing may have worked well in predicting outcomes when one also knew that that the destination of the interview was confirmation or otherwise of cognitive fit with a single or

simple job fit, as in the high period of stable Fordist organisations and specific Taylorist task designation.

Yet in an era with rapidly changing operational needs, there may be non-finite criteria for person–job fit since the job may be changing all the time. Organisation fit itself may now be in question granted that many managers now no longer can be as sure as in an earlier era of their own future destinations, nor that of the institution or corporation for which they are selecting. Nor is this the case only in highly competitive markets exposed to predation from hedge funds or mergers and acquisitions. In the public sector, governments now may decide overnight that an institution needs to delayer, downsize and outsource, where the outsourcing may include that of selection itself.

One of the responses to such pressures in both the public and private sectors has been shorter-term 'flexible' contracts of a year or less, in which case, organisation fit rather than job fit scarcely counts at all. If there is a counter to this, it will be in those organisations where selectors may know nothing of the theory of tacit knowledge or the now-widespread claims that it is vital to competitive advantage, yet are aware at varying levels of consciousness that they need to gain, train and retain people whose personality shows the potential for creativity and imagination in environments where this is vital for an organisation to both survive and flourish.

This also relates to psychological contracting less in the sense of Denise Rousseau of whether the candidate for a job may have expectations which then are not fulfilled by an employer, rather than whether the expectations of an employer also are fulfilled when a successful candidate for a job offer accepts one.

Dispositional and situational logics

Thus an interview may not only concern the standard assumption of assuring job and organisation fit, but be closer to Bakhtin's (1935, 1981) dialogical imagination which, as he stressed, can *create* meanings by discourse. But, if so, this may need more than sequential once-off answers to serial and invariant questions. It will need to traverse unpredictable domains to gain an iterative approximation to candidates' values, beliefs and dispositions, especially whether they have the personality which can address and cope with change. Figures 9.2 and 9.3, drawing on the analytic framework of this and earlier chapters, stylise such a socio-cognitive approach.

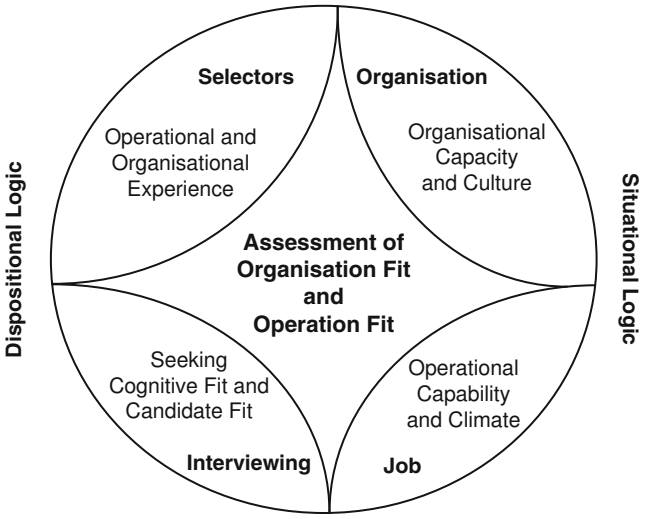

Figure 9.2 Dispositional and situational logic in selection

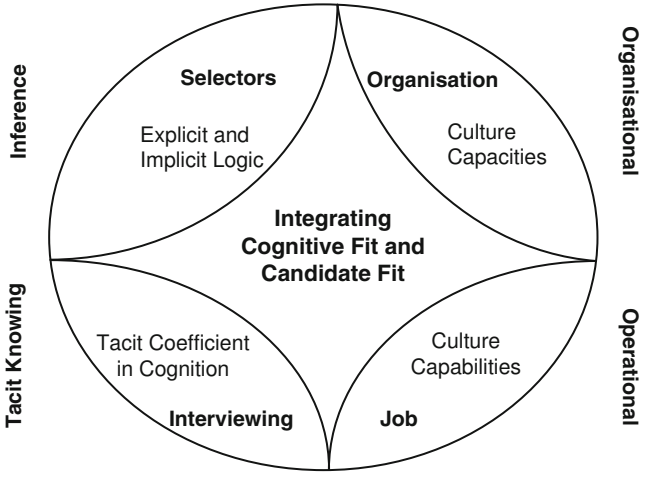

Figure 9.3 Cognitive process in interviewing

As outlined earlier, Bourdieu (1984, 1990, 2001) claimed that the *habitus* of work and life experience influences dispositional, normative, practical and situational logics within behaviour. In selection theory, there also has been increased attention to the importance of situational

variables in explaining both perception of candidates and the need for person–job fit (Schneider, 1983, 1987, 2001, 2008; Chatman, 1989; Wanous, 1992; van Vianen, 2001).

Further, in line with Bourdieu's (1984, 1990, 2001) distinction of dispositional from situational logic, it should be possible in principle to identify how different dispositions derived from practical experience, such as in being an operational manager or training manager or company psychologist, may preconsciously dispose different managers to seek different attributes of candidates within the same interview panel.

Dichotomising interviewing methods

The earlier analysis of meaning and method cited the call of Boekaerts et al. (2005) for approaches to knowing and understanding which differ from dyadic right or wrong Aristotelian logic. The evidence already cited from neural research such as that of Edelman (1992) indicates that we think neither only in inferential terms nor only in a dyadic manner, but also analogically and referentially, while a main claim of Matte Blanco (1975) is that the logic of the unconscious mind is referential, and that this may be able to both address and resolve complexity, whereas inference alone may not.

Integrating structured and iterative methods

Figure 9.4 represents Dipboye's (1994) dichotomisation of structured and unstructured interviewing. By contrast, while sharing the same form, Figure 9.5 suggests an alternative framework for how structured and semi-structured methodologies may complement each other. Thus selectors less than consciously, but rationally, may be seeking to reconcile multiple dimensions of their 'cognitive fit' of the attributes of candidates with those needed for 'candidate fit' in terms of operational and organisational needs and seeking an integration of these which is not gained simply by summing scores of individual criteria concerning knowledge, abilities and skills, or values, beliefs and personality.

But what this implies is that where the case for structured interviewing is based only on a presumption of inference, its cognitive basis is constrained. Similarly, our main criticism of the methodology of Tversky and Kahneman (Kahneman, 2003, 2011) is that its cognitive basis was

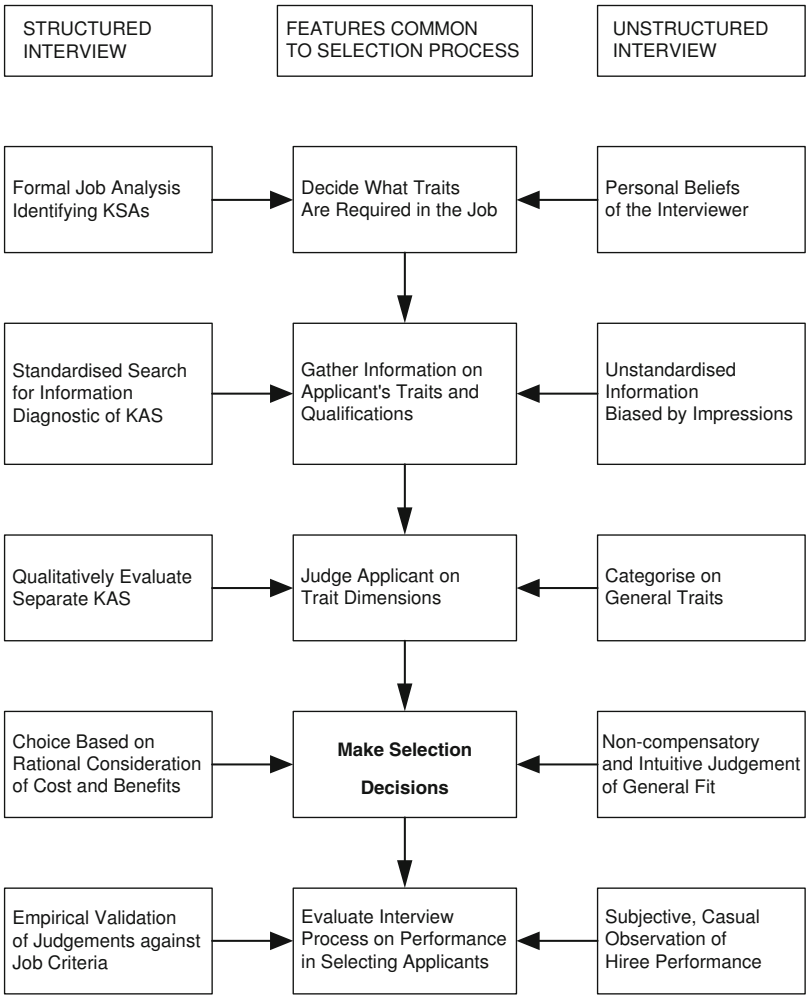

Figure 9.4 Dichotomising structured and unstructured interviewing
Source: Dipboye (1994, p. 83)

presumptive in dichotomising reason and intuition whereas neural research such as that of Edelman (1992) indicates that intuition may integrate inference with a wider-ranging referential rationality of the mind.

Our reservation also applies to Dipboye (1994) and his dichotomisation of structured and unstructured interviewing, as shown in Figure 9.4.

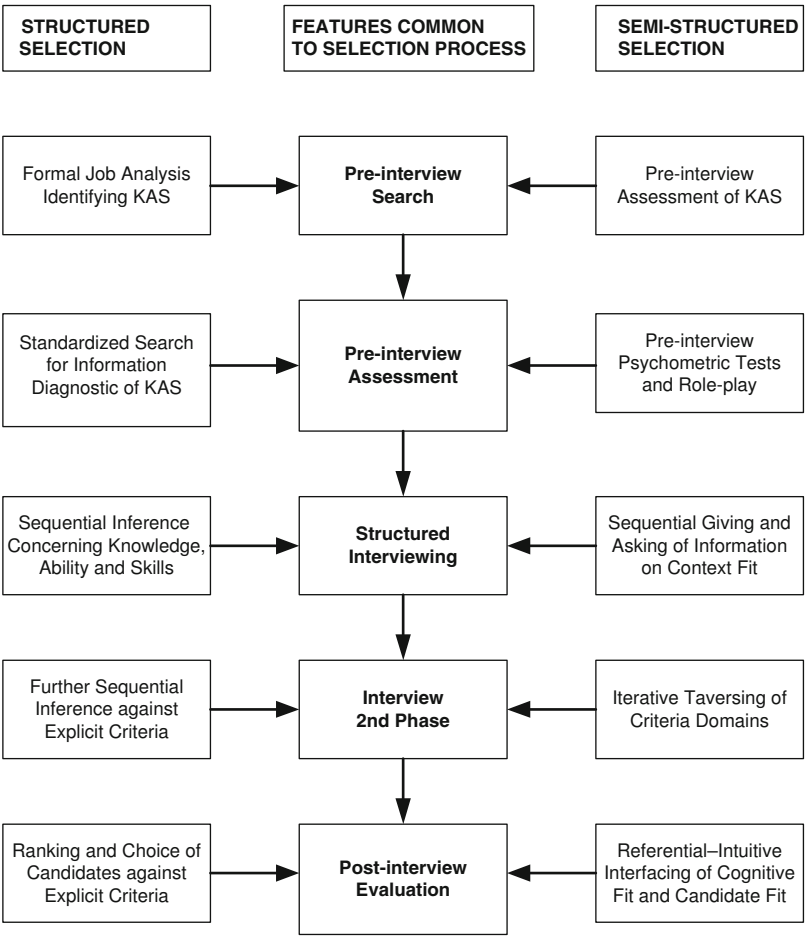

Figure 9.5 Integrating structured and semi-structured selection

The figure parallels the 'dual theory of the mind' approach of Tversky and Kahneman, cited in Chapter 6, and in their figure (Figure 6.1).

Much as Tversky and Kahneman assumed that premise-based reasoning was more reliable than intuition, Dipboye presumes that structured interviewing is objective and unstructured interviewing unreliable since the latter is based on the personal beliefs of the interviewer, biased by impressions, concerned with only intuitive judgement of general fit and lax in evaluating performance against job criteria.

Yet what can be found in the discourse analysis of how managers as selectors interview in the case study given in the next chapter challenges this in showing not only that they are assiduous in seeking to gain procedural and distributive justice, and to assure themselves that a candidate will not quit after training, but also that it is in the semi-structured phase of their interviews that they are most able to reconcile 'subjective' cognitive fit and 'objective' candidate fit.

By contrast with Dipboye, Figure 9.5 distinguishes the explicit knowledge and inferential information gathering of a normative approach with the interfacing of conscious and less-than-conscious referential processes in an iterative approach to gaining understanding. Unlike Dipboye (1994), it suggests that a combination of both approaches gives a better chance for selectors to combine subjective 'cognitive fit' and 'candidate fit'.

What we are suggesting on both theory and data-driven bases, as in the next chapter, is that this may explain why managers as selectors resist simply 'summing' a decision on explicit criteria for assessment of candidates. This is not least also since some criteria may be conflictual such as in the case of a candidate for the post of a TV operator, cited later, who scored top in every test, and in interview, yet was so brilliant that he almost certainly would be accepted by the film school to which he had applied. The candidate was not likely to be content with being a TV operator or therefore 'anchored' in the job as a career in the sense of Schein (1990).

This is far from advocating that interviewers should not be trained in selection methods. But it would imply a shift in direction in selection theory from a normative paradigm which assumes that cognition can be neutral and that interviewing should be devoid of sensing, feeling or intuition towards one recognising the degree to which tacit knowledge and implicit learning may validly inform selectors' decision-making, and that traversing in questioning candidates by semi-structured or unstructured dialogue is breach of what should be a rule in normative theory but recognition of how selectors may need to reconcile cognitive fit and candidate fit.

Gaining a balance

None of the above implies rejecting a structured approach to selection. Pre-screening of candidates is sensible in terms of time and cost-effectiveness. Pre-interview psychometric assessments have their own claims to validity, even if fashions within this change. It may also be the case that a company psychologist conducting such an assessment

may gain insights from a one-to-one personal interview with shortlisted candidates before a panel interview and be able to inform the panel of attributes of candidates which may not have surfaced during the interview, and which a panel may then wish to take into account before final selection decision-making.

Pre-interview psychometric assessment therefore can be useful as also may be trainability tests in distinguishing procedural from semantic knowledge. Also, an explicitly structured approach in an initial phase of interviewing clearly has merit in ensuring that all candidates are given or asked the same information in the same way on a range of explicit criteria, which should give them a similar sense of what the job means in its operational or organisational context and thus fulfil conditions for psychological contract.

All of this is merited in terms of normative selection theory. However, in terms of both the scope and limits of normative theory and on a data-driven basis, as reported in the next chapter, it is suggested that

- dismissing less than explicitly structured methods in interviewing may underestimate both the reasons why interviewers widely opt for them and the implicit logic in their doing so;
- a combination of both structured and semi-structured interviewing may give a better outcome in terms of reconciling cognitive fit and candidate fit than relying only on explicitly structured assessment;
- it may only be in a semi-structured phase of a panel interview that managers with current operational experience are able to bring this to bear in a manner that a psychologist alone may not in a pre-interview psychometric test;
- the concept of single person–job fit is constrained in an era in which many jobs now imply both multitasking and multiskilling and that it is more useful to designate this as role fit in relation to both person–operation fit and person–organisation fit; and
- the standard category of KSA has become axiomatic for decades in selection theory, yet fits ill as a sequence since skill, if achieved, follows ability rather than precedes it, which is why we have adopted the alternative and more grounded meaning-in-use of KAS in the case study in the following chapter of what managers submit is important to them in selection, and then of how they actually select.

10
What Managers Have in Mind

Earlier chapters have stressed the importance of structured methods in selection procedures but questioned the normative presumption in favour only of structured interviewing. The case study B reported in this chapter were with managers in a European broadcasting company which modelled its selection procedures on those of the British BBC and closely followed the structured procedures for selection recommended in normative theory including pre-interview screening, one-to-one psychometric tests and role-play and trainability assessments.

Case study B first concerns managers' identification of criteria for personnel selection. It then analyses managers' discourse in panel interviewing as well as in post-interview discussion and decision-making on candidates.

The discourse in each case – of one-to-one interviews with managers of what criteria were important to them in selection, and managers' questions and responses to candidates in panel interviewing as well as of post-interview discussion and selection of candidates – was audiotaped, transcribed and coded.

Not initially premised

The initial research questions and research aims in the case studies were conventional, such as whether selectors gave preference in their choice and deployment of criteria in selection to person–organisation or person–job fit, and whether they prioritised either the set of knowledge–skills–abilities (KAS) or that of values–beliefs–personality (VBP), and how they ranked individual criteria within them. They also sought to identify whether managers shared common or conflicting rationalities in their prioritisation of criteria.

Yet what was 'learned up' from the research interviews with managers and then attending panel interviews and selection decision-making suggested concepts which had not initially been premised. This should not have been surprising since the outcome was consistent with grounded theory in the sense of Charmaz (1990, 1994), Henwood and Pidgeon (1995), Shah and Corley (2006) and Symon and Cassel (2006) that, on a data-driven basis, discourse analysis should be able to suggest new concepts.

- It had not initially been premised for the one-to-one research interviews with managers that they might be unwilling to rank individual criteria in any order of priority, nor that they would stress that the significance of criteria for them depended on different operational and organisational contexts, nor that they might interrelate and overlap different criteria, even though this was consistent with Bartlett's (1932 [1995]) stress on overlapping schema in cognition.
- It had not been anticipated that, in the same one-to-one research interviews, managers would need time to approximate what criteria were important for them in an iterative and referential manner even though this was consistent with the interfacing of conscious and less-than-conscious processing in connectionist theory and neural research, as well as the surfacing of tacit knowledge.
- It had not been foreseen that managers would be unwilling to rank criteria explicitly, nor foreseen that analysis of their discourse nonetheless would reveal that, implicitly, they did so. Nor had it been anticipated that there would be common, rather than conflicting, rationalities in how they did so, suggesting confirmation for Bourdieu's normative, practical, dispositional and situational logics, even though they were not conscious of these and that the norms that they regarded were tacit rather than explicit, unlike those recommended in normative selection theory.
- It had not been foreseen that the structured phase of panel interviewing was mainly concerned with giving information, while its later semi-structured phase was mainly asking for it. Nor had it been predicted that the implicit logic within this could be that the different phases played different roles in reconciling cognitive fitting of the attributes of candidates with multiple dimensions of what was needed from them in terms of not only job fit and organisation fit but also other dimensions of fit.
- It also had not been anticipated that a central concern of managers as selectors was whether candidates could have the personal confidence to be self-directed and creative and that concern with the VBP

of values, beliefs and personality rather than the KAS of knowledge, abilities and skills could be decisive in final selection decision-making.
- It had also not been foreseen that giving of information in the panel interviews was equivalent to the offer of a psychological contract in that the managers were highly concerned to ensure that candidates understood what would be expected of them if they were selected and what they would get in return, including training and skill enhancement. Nor had it been anticipated that this would disconfirm Denise Rousseau's (1995) assumption that such a contract concerns only an employee's perception of what was expected from an employer.
- The initial research aims did not seek to assess Piaget's (1962) or Reber's (1993) concept of a 'cognitive unconscious' or the referential interrelation of conscious and unconscious logic of Matte Blanco (1975), whereas analysis of the discourse of managers in one-to-one research interviews, panel interviews and post-interview evaluation and selection of candidates offered confirmation for them.
- Thus it had not initially been premised that it could be found that managers in semi-structured stages of panel interviewing might unconsciously fulfil conditions for procedural or distributive justice, nor that a remarkable consistency might be found in how they less than consciously balanced criteria domains between selected and unselected candidates in semi-structured interviewing.
- It also had been presumed that the power dynamics which became evident from discourse analysis of interviewing and post-interview candidate selection could reflect an implicit assumption of leadership by operational managers, nor that this would be acquired by tacit consent from other managers, nor that this could relate to Foucault's concept of knowledge as power at any level within an organisation which is a finding reported in the next chapter.

The selection context

The post of TV operator/technician for which the candidates were being assessed covered a wide range of tasks involving not only camera work, but also video, sound and lighting equipment, live studio and outside broadcasting, editing film or CD or video tapes for entire programmes or programme inserts, graphic design and animation, staging studio programmes, selecting and assembling scenery, and accessibly storing archive material for what could need to be instant retrieval in a news broadcast.

The job therefore was less a job-in-itself than multiple 'sets-within-sets' of job roles, which suggested the concept of person–operation fit and, in a group context, person–role fit rather than the narrower person–job fit.

Most managers in the research interviews, and all of those concerned in the analysis of panel interviewing and selection, other than the head of human resource management (HRM), had initially done the job of TV operator for which they were interviewing, including the company psychologist who only qualified as such later. While he was familiar with the principles of normative selection, the other managers were not trained in selection methods or interviewing techniques and therefore had not been influenced in their choice or deployment of criteria in this regard.

As outlined in Figure 10.1, there were four main stages in the selection process. All the managers had attended the candidates' earlier pre-interview tests for aptitude and ability in terms of sight, sound sensitivity and video camera handling. These had been highly structured, with overt rules of procedure, which were made plain to the candidates, as well as explicit norms of conduct to avoid discrimination.

The pre-interview tests were followed by panel interviews, in two phases. The first was highly structured in asking and seeking responses from candidates giving the same or closely similar information in the same sequence to all candidates. The rules for this first phase of interviews were therefore overt and their norms explicit. The second panel interview phase was semi-structured, with the chair inviting any of the selectors to ask questions of candidates as they wished.

The final selection stage of post-interview evaluation of candidates and decision-making was semi-structured. It was structured in the sense that each candidate interviewed was assessed in sequence, and that the company psychologist always opened the discussion by a report

Stages of Selection	**Structure**	**Rules**	**Norms**
Pre-interview Tests	Highly Structured	Overt	Explicit
Panel Interview (Phase 1)	Structured	Overt	Explicit
Panel Interview (Phase 2)	Semi-structured	Overt	Implicit
Decision-making	Semi-structured	Overt	Implicit

Figure 10.1 Rules and norms in selection sequencing

on the pre-interview psychometric and role-play tests which he had conducted and whose results had not hitherto been made available to other members of the panel. But it then was unstructured in the sense that any member of the panel then could initiate discussion of the candidates.

Content analysis

Content analysis of the managers' discourse was on the basis of categories in a coding system which itself was developed in an iterative manner in response to 'fractal' findings from research interviews with managers reported in the first of the cases in this chapter. The second was based on presence at and observation of the panel interviews, and the third was on the same basis for post-interview selection decision-making. In all three cases, the categories by which such discourse initially was coded included

- what individual criteria were prioritised in sequences of discourse;
- how these related to prioritisation of sets of criteria such as knowledge–abilities–skills and values–beliefs–personality;
- the degree to which these concerned person–operation and person–role fit (and in the first round of coding, person–job fit); and
- how individual criteria or sets of criteria related to context, where the context could be either operational or organisational, or an interfacing of both.

In line with Matte Blanco's (1975) sets-within-sets of meaning, as well as Bartlett's finding of overlapping schema (1995), the discourse also was analysed to determine the degree to which managers unconsciously interrelated or overlapped implicit sets of criteria such as KAS and VBP in terms of organisational culture and capacity, operational capability and career issues.

Case study B – Personnel selection in a public broadcasting corporation

Surfacing tacit knowledge in choice of selection criteria

The initial part of Case study B was interviews with 32 managers in the broadcasting corporation on which criteria were important for them in selecting TV operators. Sequences of discourse were coded from transcipts of the 32 research interviews. Where the data permitted,

a chi-square test was performed. Data was cross-tabulated for differences in (a) seniority, (b) experience in the organisation and the job and (c) experience of selection and interviewing.

The coding system was not content analysis of individual words, but analysis of sequences of meanings in context, including the context of an interview itself and the degree to which initial responses to the researchers' questions needed further iterative traversing for the respondents to gain a better approximation to what they claimed that they 'really meant' or 'really wanted' of candidates.

Thus the managers needed time to iterate between different meanings within what had been tacit knowledge which they hitherto had no cause to express, much in line with the claims of Ambrosini and Bowman (2001) that 'no one had ever asked them'. Even then, what they said was replete with what they thought or valued as 'very important', 'really important', 'vital', 'crucial' or 'central' without their being willing to give an ordinal ranking of these.

Yet it then became evident from ex post analysis of their discourse that, although the managers in terms of Bourdieu's dispositional logic were unwilling to consciously rank criteria in importance, in terms of his practical logic (Bourdieu, 1984, 1990, 2001), they did so. Discourse analysis of these one-to-one research interviews with managers also found that they not only were reluctant to consciously rank criteria in importance to them, which was evident to the researcher during the interviews, but constantly referred to them in a manner which

- iterated across a range of overlapping schema, as found by Bartlett (1932 [1995]) in surfacing implicit criteria domains and
- correlated sets-within-sets of criteria in a manner similar to Matte Blanco's set theory and Polanyi's tacit coefficient.

As illustrated in Figure 10.2, what the managers prioritised in the one-to-one interviews, without consciously ranking it, were personality, operational and organisational context, skills and values, in that order, which accounted for over four-fifths of their total discourse.

Coding transcripts of their discourse were guided by Wittgenstein's (1953) principle of understanding meanings in context, which was not difficult since the managers stressed that what they needed from candidates *depended* on different operational and organisational contexts. Their discourse also 'traversed' across a wide range of such examples in an iterative manner before offering – in a manner consistent with the concept of surfacing tacit knowledge, and often after half an hour of discourse – that this was 'what they really meant'.

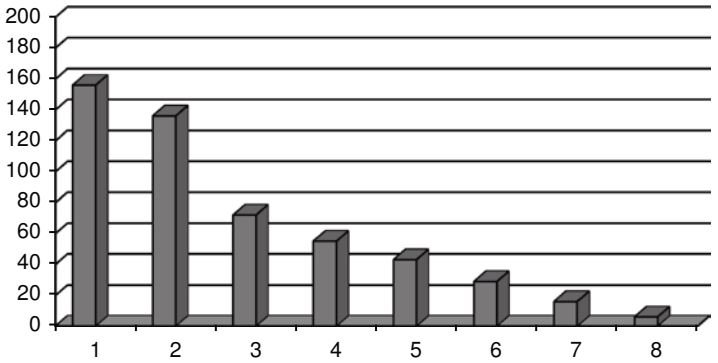

Figure 10.2 Unconscious prioritisation of criteria

1 – Personality (*n* = 156; 30.4%)
2 – Operational and organisational context (*n* = 36; 26.5%)
3 – Skills (*n* = 72; 4.0%)
4 – Values (*n* = 55; 10.7%)
5 – Abilities (*n* = 43; 8.4%)
6 – Specific knowledge (*n* = 29; 5.7%)
7 – General knowledge (*n* = 16; 3.1%)
8 – Beliefs (*n* = 6; 1.2%)

Allowing for such iterative discourse differed diametrically from the snap responses to single questions insisted on by Tversky and Kahneman (Kahneman, 2003, 2011). It was this aspect that enabled a surfacing of tacit knowledge and implicit learning on which most of the managers had not hitherto had time or cause to reflect.

Structured and semi-structured interviewing

The second part of Case study B was of an entire sequence of selection by five managers in the broadcasting company in question. All interview and post-interview discourse was audio recorded, transcribed and then coded. The 34 candidates, averaging 20 years in age, had been shortlisted for the post of TV operators.

The managers included the head of HRM; two operational managers from News and Current Affairs, one of whom had no previous experience of interviewing; a training manager; and the company psychologist. As already indicated, all the managers had attended trainability tests conducted for a wider range of candidates, from among whom some had been invited to attend an interview. They each had registered their assessment of the interviewees on these tests before the panel interviews. The company psychologist also had undertaken one-to-one

interviews and psychometric tests with the shortlisted candidates before the panel interviews, and had organised and assessed their group role-play.

Selectors were requested by the head of HRM as the panel chair to make interim assessments of candidates after each interview, but for their own rather than the panel's guidance. They should rank candidates as 'Select and Invite to Train' – the A List; 'Select', but not necessarily invite to train – the B List; or 'Reject'. Selectors also were invited to designate candidates as Intermediate between the A and B lists, i.e. those on whom they would wish to seek further information after asking views from the company psychologist on their pre-interview psychometric tests and one-to-one pre-interview role-play evaluations before final decision-making.

In the first phase of the panel interviews, the managers were invited by the panel chair to give and ask information in the same sequence and in the same manner, which conformed with a structured normative approach in respecting overt rules of procedure and explicit norms of conducting discourse. In the second phase of the panel interviews, they were free to take the initiative in asking questions of candidates without this needing to be in sequence. In this second unstructured phase, in contrast with the recommendations of normative selection theory as in Dipboye (1994, 1997) or Guion (1965, 1997), any manager could respond to and pursue further answers from candidates in an iterative manner, traversing different explicit or implicit criteria domains.

Selectors and selection sequencing

Of the five managers (hereafter M1 to M5) conducting the panel interviews, M1 was the head of the HRM department, to which he had initially been recruited by the company, and where he had more than 15 years' experience of selection. He was the only member of the panel who had not previously been a TV operator. M2 was a middle manager in News and Current Affairs, with some 7 years' experience of selection for TV operators. M3 was a junior manager in News and Current Affairs, with no previous experience in selection interviewing. M4 was a junior manager in the Training Department, with no previous experience of interviewing. M5, a manager in HRM, was the company's qualified psychologist with some 6 years' experience of selection interviewing throughout the corporation.

HRM managers M1 and M5 had interviewed not only for TV operators but also for other appointments such as journalists and reporters, as well as administrative and clerical staff. They therefore had broader experience both of the organisation and of interviewing than operational managers M1 and M2, and the training manager M4.

The composition of the panel differed according to which managers were available for the interviews in relation to other claims on their time. The panel chair M1, the training manager M4, and the company psychologist M5 attended all interviews. Operational managers M2 and M3 were present as and when operational demands allowed.

In opening the interviews, panel chair M1 introduced the members of the panel to the candidates and indicated that the initial phase of the interview would be giving them information on what actually was involved in and by the job, after which there would be more open-ended questions to which they would be invited to respond. This initial giving of information was by the same managers in the same sequence, other than when either of the operational managers could not attend, and thereby conformed to the recommendations made for structured or normative interviewing as in Dipboye (1994, 1997) or Guion (1965, 1997).

Throughout this initial structured phase, panel chair M1 set the selection agenda for the interview in terms of procedure, but not its criteria domain. When operational manager M2 was not present, his counterpart middle operational manager M3 would give similar information in the same manner. The interviews then shifted from structured giving of information to semi-structured asking of information from candidates.

Findings

Figure 10.3 shows an aggregate analysis of managers' discourse in the panel interviews in terms of criteria which are standard in selection theory, such as knowledge, abilities and skills, and values, beliefs and personality. Availability includes specific questioning whether candidates recognised that they would need to be available for work at any time and place and whether their personal circumstances would allow this. Knowledge was deconstructed in terms of general and specific knowledge.

Notably, in Figure 10.3, skills and abilities are virtually off the scale not because they were not important in the manner indicated in the research interviews with managers, but because they already had been

exhaustively assessed. Specific knowledge ranks high only because one of the panel members, responsible for maths and physics tests for candidates, and without earlier experience of interviewing, had focused all his interview discourse on their outcomes. Operational and organisational context ranked top, despite the two operational managers who proved most concerned with this not being able for operational reasons to attend several of the interviews.

Figure 10.4 deconstructs this aggregate discourse by analysis of the criteria deployed by managers in the second semi-structured phase of the panel interviews. Operational and organisational context still ranks first, but drops by 10 per cent. Discourse in terms of personality now ranks second. Values and beliefs now rank fourth and fifth after specific knowledge, and account for a quarter of total discourse. Availability no longer features since this had been covered and in principle cleared in the earlier structured phase of the panel interview.

Figure 10.5 shows the contrast between the earlier structured phase of panel interviewing of the prioritisation of criteria by managers in the post-interview evaluation of candidates which all of the panel members attended. Personality not only ranks first, but soars above other criteria and doubles the discourse concerning operational and organisational context. Discourse concerning skills jumps from last (Figure 10.4) or second to last (Figure 10.3) to third. General rather than specific knowledge rises from nil in Figure 10.4 to fourth. Specific knowledge drops to last .

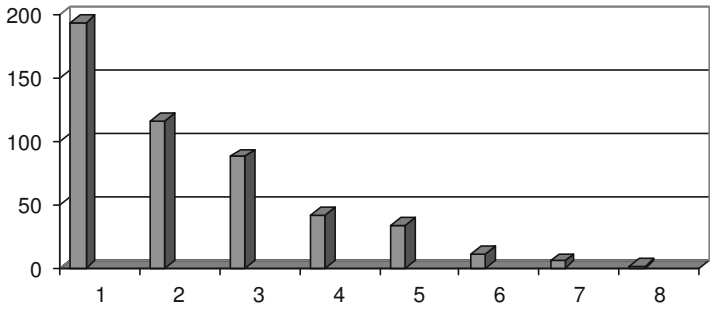

Figure 10.3 Implicit criteria in panel interviews

1 – Operational and organisational context (*n* = 193; 39.1%)
2 – Specific knowledge (*n* = 116; 23.5%)
3 – Personality (*n* = 88; 17.8%)
4 – Availability (*n* = 42; 8.5%)
5 – Values (*n* = 34; 6.9%)
6 – Beliefs (*n* = 2; 2.4%)
7 – Skills (*n* = 6; 1.2%)
8 – Abilities (*n* = 2; 0.4%)

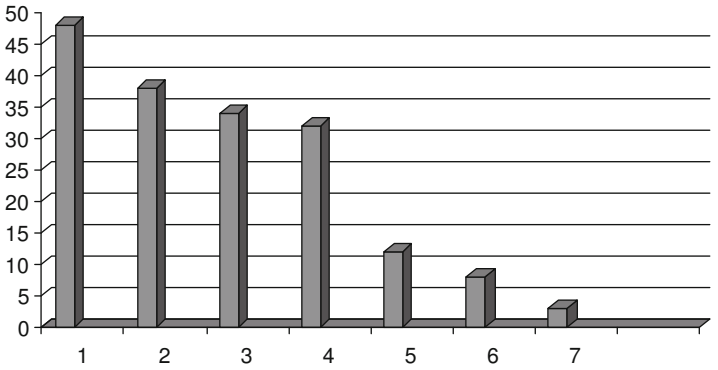

Figure 10.4 Implicit criteria in semi-structured panel interviewing

1 – Operational and organisational context (*n* = 48; 27.4%)
2 – Personality (*n* = 38; 21.7%)
3 – Specific knowledge (*n* = 34; 19.4%)
4 – Values (*n* = 32; 18.3%)
5 – Beliefs (*n* = 2; 6.9%)
6 – Indeterminate (*n* = 8; 4.6%)
7 – Skills (*n* = 3; 1.7%)

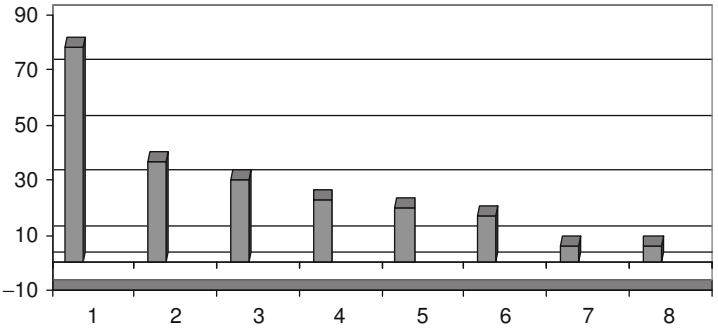

Figure 10.5 Implicit criteria in post-interview evaluation

1 – Personality (*n* = 78; 35.9%)
2 – Operational and organisational context (*n* = 37; 17.1%)
3 – Skills (*n* = 30; 3.8%)
4 – General knowledge (*n* = 23; 10.6%)
5 – Abilities (*n* = 20; 9.2%)
6 – Values (*n* = 17; 7.8%)
7 – Beliefs (*n* = 6; 2.8%)
8 – Specific knowledge (*n* = 6; 2.8%)

Different rationales but consistent logic

The findings indicate that it is possible by analysis of implicit logic in discourse to identify criteria which managers either consciously or less than consciously prioritise in selection. Thus, whereas managers were reluctant in the one-to-one research interviews to rank the importance

to them of selection criteria, the findings from transcripts of their discourse in one-to-one interviews, panel interviews and post-interview evaluation show that they unconsciously did so in a clearly ordinal manner.

Yet, as indicated by Figures 10.3–10.5, the criteria which managers prioritised in the structured and semi-structured phases of the panel interviews differed, implying that these served different functions. Thus, the initial structured phase of the panel interviews was concerned with whether candidates understood what the job actually meant in its operational and organisational context, which amounted to conditions for psychological contract.

Thus they elaborated that the job was not simply camera work in studios; that it could mean being called out at any time of the day or night to cover a natural disaster or a political crisis, and waiting in the rain and cold for hours; that the operator might be working weekends and nights, rather than a nine-to-five five-day week; that the interviewees should consider the implications of this on their work–life balance, and whether they could sustain this; and that the job involved taking instructions from either a studio director or outside broadcaster director without challenge, even if time might be available later to assess it and whether they could accept this.

This makes sense of the degree to which criteria for operational and organisational context ranked first in managers' overall discourse in panel interviewing and also in the semi-structured phase of such interviewing (Figures 10.2 and 10.3).

Implicit sets of criteria

Allowing for this, and that none of the managers were aware of sets within standard selection theory such as VBP and KSA – or KAS as we have re-designated the latter – there nonetheless was a striking similarity between the implicit sets of criteria that they prioritised in one-to-one interviews with the researcher and those evidenced in the semi-structured phase of the panel interviews, which can be seen from a comparison of the their criteria in Table 10.1.

This suggests that there were similar rationales in the one-to-one research interviews with managers and in the semi-structured phase of panel interviews, but different rationales in the semi-structured phase of panel interviewing from earlier structured discourse with candidates. Also that the logic of managers in the semi-structured phase of panel

Table 10.1 Sets of criteria in one-to-one interviews with managers and in semi-structured panel interviewing

	Discourse analysis	
Sets of criteria	**Research interviews with managers**	**Semi-structured panel interviewing**
Values, beliefs and personality (VBP)	42.3%	46.9%
Knowledge, abilities and skills (KAS)	17.2%	21.1%
Context	26.5%	27.4%

interviewing was not necessarily conscious but more deeply based in tacit knowledge and implicit learning, whereas in the structured phase of the panel interviews, they were highly conscious in the manner recommended by normative selection theory.

The data-driven basis for this, as in grounded theory (Glaser & Strauss, 1967; Charmaz, 1990, 1994; Henwood & Pidgeon, 1995), was the difficulty which managers with extensive experience of interviewing found in readily identifying the criteria which were most important for them. It needed time for them to surface what hitherto had been tacit knowledge from implicit learning to iterate consciously towards what they 'really meant', which, other than in the one-to-one interviews, they never had been called upon to explicate.

This also suggests that, in contrast with Akbar (2003) and Gourlay (2006) in their challenge to Nonaka (1994), such a method based on discourse analysis disconfirms their claim that there is no operational methodology for surfacing tacit knowledge and implicit learning. We also suggest that this may inform Guion's (1965, 1997) claim that interviewing may help resolve complex and possibly contradictory criteria, even without his initial preference for highly structured interviewing as a necessary condition for this.

Especially, it could be that it is iterative traversing in both questioning managers on what criteria are important for them in selection and managers iteratively questioning candidates over nominally different criteria domains in semi-structured interviewing that enables managers as selectors to gain a better approximation of what is important to them in approximating an integration of cognitive fit and criteria fit, and thus inform what Guion (1965) admitted as the need for interviewers to come to a 'final integrating judgement' of candidates.

Situational and dispositional logics

In the initial structured phase of the panel interviews, managers were highly concerned with what Bourdieu (1977, 1979, 1984, 1990, 2001) has claimed are situational and dispositional logics. They wanted to gain understanding of whether candidates were disposed to accept what the job implied in its operational context. They were concerned about making sure that candidates understood that being a TV operator could mean standing in the cold and rain for hours, waiting for someone to exit from an office or a hotel, and gaining a brief sequence of film or a few seconds of sound bite which needed to be caught without fail rather than missed;. that they could be called out at any time of night or day, and need to be available for this; and that they would be expected to do routine work such as monitoring sound equipment, archiving material, or editing videos and do so not only in television but also for sound broadcasting.

Making such situational context plain to candidates was the main concern of interviewers in the initial structured phase of the panel interviews. Candidates' consent to the implications of this was vital for them since, as one of them stressed in giving a 'fractal' insight in his research interview, selected candidates otherwise tended to forget that they had accepted to work anywhere, at any time.

Thus, without conceptualising it, the implicit logic of what the managers as selectors were doing was seeking to establish the ground rules for psychological contract (Guest et al, 1996; Guest 1998a, 1998b, 2003, 2004a, 2004b) and a concern to anticipate and avoid a later sense of breach of it (Rousseau, 1995, 1998). Once they had done this in the structured phase of the panel interviews, they could get on with a closer approximation of cognitive fit and candidate fit in relation to what they knew at varying levels of consciousness was needed from candidates if they were to do the job well in its multiple operational and organisational contexts.

Unconscious logic and procedural and distributive justice

This study concerned whether or not managers as selectors achieved procedural and distributive justice in panel interviewing. There is a wide-ranging theoretical literature on this (e.g. Arvey & Sackett, 1993). But, as stressed by Gilliland (1993), much of this has been based less on actual selection procedures rather than on simulated decision-making.

The study was based on the same full sequence of panel interviewing and post-interview evaluation as in the study on iterative process in structured and semi-structured interviewing, with the same managers and the same interviewee sample, and where the A list candidates were those both selected and invited to train, and the B list comprised those who were on the reserve list, with other candidates being rejected. As before, VBP concerns values, beliefs and personality; KAS is knowledge, abilities and skills; P–Org Fit is person–organisation fit; and P–Op Fit is person–operation fit.

The overall findings are summarised in the four tables below. Indeterminate criteria are those that did not fall exclusively into either of the main sets of criteria of KAS or VBP, but overlapped them (Wittgenstein, 1953; Edelman, 1992; Bartlett, 1995) or overlapped individual criteria within them, such as operational and organisational culture and capabilities, as outlined in the previous chapter, and of which examples are given in the Annex.

Table 10.2 cross-tabulates all panel interview discourse concerning VBP and KAS in relation to actual selection outcomes. It indicates that interview discourse in terms of VBP averaged over 4.5 exchanges per candidate for the A list candidates who were selected and invited to train, as against 5.0 for those selected for the B reserve list and only 3.1 for those who were to be rejected. However, in discourse in terms of KAS, the average exchanges were near identical for the selected A list candidates and rejected candidates.

Table 10.3 cross-tabulates all post-interview discourse concerning VBP and KAS in relation to panel selection decision-making. It is notable that rejected candidates gained *more* attention in post-interview discussion in terms of both VBP and KAS than candidates who were selected, or those who were to be scheduled for the B reserve list of those who met the minimal selection criteria, but were not to be invited to train.

Table 10.2 Panel interview discourse in terms of values–beliefs–personality (VBP) and knowledge–abilities–skills (KAS)

Actual selection outcome (*n* = 34 candidates)	**Selection criteria**			
	VBP	**KAS**	**Indeterminate**	**Total**
n = 14 (A list)	64 (4.5)	50 (3.6)	106 (7.6)	220
n = 9 (B list)	31 (3.4)	35 (3.9)	60 (6.7)	126
n = 11 (Rejected)	34 (3.1)	38 (3.5)	75 (6.8)	147
Total	129	123	241	493

Table 10.3 Post-interview discourse on personal attributes

Actual selection outcome (*n* = 34 candidates)	Selection criteria			Total
	VBP	KAS	Indeterminate	
n = 14 (A list)	38 (2.7)	30 (2.1)	17 (1.2)	85
n = 9 (B list)	25 (2.7)	20 (2.2)	10 (1.1)	55
n = 11 (Rejected)	35 (3.2)	30 (2.7)	12 (1.1)	77
Total	98	80	39	217

Notes: VBP, values–beliefs–personality; KAS, knowledge–abilities–skills.

Table 10.4 Panel interview discourse on role fit

Actual selection outcome (*n* = 34 candidates)	Selection criteria			Total
	P–Org Fit	P–Op Fit	Indeterminate	
n = 14 (A list)	86 (6.1)	52 (3.7)	82 (5.9)	220
n = 9 (B list)	45 (5.0)	30 (3.3)	51 (5.7)	126
n = 11 (Rejected)	51 (4.6)	41 (3.7)	55 (5.0)	147
Total	182	123	188	493

Notes: P–Org Fit, person–organisation fit; P–Op Fit, person–operation fit.

Table 10.4 cross-tabulates all interview discourse concerning person–organisation and person–operation fit in relation to selection outcomes. Interviewers clearly were more interested in the VBP of those candidates selected and invited to train than in those of either the candidates who would be selected for the B reserve list or the candidates who would be rejected. On the other hand, they were more concerned with person–operation fit of rejected candidates than they were with that of the B list of selected candidates and attributed an identical share of interview discourse in terms of person–operation fit to A list selected candidates and rejected candidates.

Table 10.5 cross-tabulates all post-interview discourse concerning person–organisation and person–operation fit in relation to selection outcomes. Average discourse in terms of *rejected* candidates was much *higher* in terms of both person–organisation and person–operation fit than for those A list candidates selected and invited to train. It was just lower in terms of person–organisation fit than for those candidates selected for the B reserve list, but again much higher in terms of person–operation fit than for those who gained a place on the B list.

Table 10.5 Post-interview discourse on role fit

Actual selection outcome (n = 34 candidates)	Selection criteria			Total
	P–Org Fit	P–Op Fit	Indeterminate	
n = 14 (A list)	51 (3.6)	28 (2.0)	6 (0.4)	85
n = 9 (B list)	38 (4.2)	17 (1.8)	0	55
n = 11 (Rejected)	45 (4.1)	30 (2.7)	2 (0.2)	77
Total	134	75	8	217

Notes: P–Org Fit, person–organisation fit; P–Op Fit, person–operation fit.

Findings

In interview discourse, the managers as selectors clearly were more interested in the VBP of candidates whom they later selected on the A list of those invited to train than they were in those of candidates who later were to be rejected. But they attributed similar discourse to selected and rejected candidates in terms of KAS. In post-interview evaluation, they allocated substantially *more* discourse to rejected candidates in terms of both VBP and KAS than they did to either A list selected candidates or their B list of reserve candidates.

Thus the discourse they attributed to A list candidates and rejected candidates in terms of person–operation fit was identical, and in post-interview evaluation, it was much higher in terms of both person–organisation and person–operation fit for rejected candidates than either for those on the A list who were selected and invited to train or for those on the reserve B list.

This had its own implicit logic. If candidates did not meet the necessary conditions for KAS, or operation fit, they did not qualify sufficiently for as much discourse on whether they had the requisite VBP for organisation fit as did candidates who ranked on the A or B lists. This met a minimal condition for procedural justice, that is, if there is no sufficient KAS and criteria for operation fit, then there is no comparable discourse concerning VBP and organisation fit.

But in post-interview evaluation, selectors appeared concerned to confirm or disconfirm whether this was the case, and therefore allocated *more* discourse to both the VBP and KAS and the person–operation and person–organisation fit of candidates who were about to be rejected than they did to those of candidates who were on their A list, and which thereby fully met conditions for procedural justice.

However, they did not need a conscious checklist of how much discourse on which criteria they were allocating to the candidates to achieve this. Nor was any analysis of their interview discourse available to them by the time of the post-interview evaluation. Neither the panel chair nor the company psychologist suggested that they should weigh more evaluation of this in favour of those candidates who were about to be rejected. Nor was it known until they had completed such post-interview discourse which candidates would in fact be selected or rejected. Nor was this from conscious consideration of equal opportunities, to which none of them, including the panel chair, made any reference. Unconscious logic did it for them.

One factor where there was a highly conscious logic among the members of the selection panel was that if they selected the wrong candidates, they would be wasting time and resource costs in training them. The resource costs of the training programme, and the importance of not 'losing' a selected candidate during or after it, as well as the need to meet a target number of candidates for operational reasons, had already been stressed by managers in the one-to-one research interviews with them.

But this was not necessarily concern to select 'the best' candidates in terms of the outcome of their pre-interview tests or the interview itself. There was the criterion dilemma (Guion, 1965, 1997) that a candidate who might score high in pre-interview tests and during an interview would be more likely to quit for another job before, during or after training.

Structured and semi-structured panel interviewing

The study indicated that interviewers considered the KAS of knowledge, abilities and skills as a necessary condition for selection and only were disposed to ascertain other attributes of candidates if they had already been assured of this.

Higher discourse in terms of KAS for those who were to be on the reserve B list indicated a concern to approximate a closer relation of cognitive and candidate fit to assure selectors that candidates met necessary conditions for selection in terms of knowledge, abilities and potential skills. Higher discourse on both the VBP of values, beliefs and personality and person–organisation fit for candidates who ended on the A list indicated the interviewers' concern to be assured that they had met sufficient conditions by these criteria to be prioritised in candidate choice over and above those candidates who were to be on the reserve B list.

Differences between the discourse of managers in the initially structured and later semi-structured phases of panel interviewing were significant. But these indicated that they fulfilled different roles within interviewing. This is supported by deconstructing the main stages of the selection sequence.

- In the pre-interview psychometric and group role-play tests, the company psychologist was concerned to profile the personality of candidates.
- In the pre-interview sight-and-sound trainability tests, selectors were especially concerned to assess the KAS of knowledge–abilities–skills.
- In the first and highly structured phase of the panel interviews, selectors were concerned to give and gain responses on operation fit and organisationfit.
- In the iterative semi-structured phase of the panel interviews, their discourse ranged across criteria domains, with half concerning operational and organisational context. But their main discourse concerning role fit in both operational and organisational terms in relation to personality.
- Post-interview evaluation of candidates combined the company psychologist giving information on the outcomes of his pre-interview personality tests in a structured manner with the free-flowing iterative discussion of other managers before final decision-making.
- Discourse analysis of such post-interview discourse on selection nonetheless indicated that an operational manager at the front line of service delivery implicitly assumed and tacitly gained consent for his selection agenda, which is evidenced in Chapter 11.

Integrating cognitive fit and candidate fit

The findings from the study indicate that it is possible to identify 'connections' and sets-within-sets of meanings within both conscious and implicit logic in discourse and confirm the degree to which connectionist theories of cognition (e.g. Glöckner & Witteman, 2010) have suggested this.

They also suggest support for Matte Blanco's (1975) case on unconscious symmetrisation, in the sense that, faced with asymmetric attributes of candidates, such as someone who has leadership potential but may not initially make a good team player, the interviewers were seeking to symmetrise cognitive fit with operation fit and organisation fit.

Thus the managers as selectors 'overlapped' schema (Bartlett, 1932 [1995]; Edelman, 1992) and sets of implicit meaning (Matte Blanco,

1975, 1988) such as those relating to person–operation and person–organisation fit, but also interrelated sub-sets of meaning such as person–group fit with dispositional and situational logics relevant to different role needs.

But they did so *without* consciously conceptualising these. They were not aware of the taxonomy of 'fit' in selection theory, nor were they therefore consciously concerned to relate their discourse to this. But what they implicitly sought was a cognitive fit between the attributes of candidates and what they 'knew they needed' of candidates in terms of implicit learning from experience and in terms of Polanyi's (1962) 'subsidiary awareness'.

That this was less than wholly conscious was evident from the time that it took them in the one-to-one research interviews to search for what 'they really meant' in terms of which criteria were important to them in selection. Their iterative discourse in these research interviews demonstrated a surfacing of tacit knowledge in how they sought to approximate cognitive fit with multiple dimensions of candidate fit, which they expressed in their own terms even though these coincided with some categories in mainstream selection theory.

Discourse analysis in the study of the second semi-structured phase of the panel interviews indicated that managers needed to traverse different criteria domains to seek to resolve implicit 'criterion dilemmas' (Guion, 1965, 1997). An example is the case of the highly talented candidate who had already applied for a film school, and was likely because of this to be accepted, and thereby unlikely to stay either the formal training programme, or the on-the-job training or the probationary period following it.

This implies that when selectors face such criterion dilemmas, they are likely to draw on inference from previous experience, such as a good candidate quitting for another job before completing training, but also interfacing inference and intuition since there could be no evidence ex ante of what an individual candidate would decide in future.

But to the degree that this integrating judgement may have been intuitive, and in contrast with the presumption of Kahneman (2003) that intuition is a fast shortcut, displacing and inferior to inferential premise-dependent reasoning, the selectors came to it only after a lengthy inferential process ranging from the pre-interview ability tests which they all had attended and the panel interviews which most of them had attended to questioning by operational managers of other selectors in post-interview evaluation on how candidates whom they had not interviewed had performed, before final selection decision-making.

The findings offer support for the case of Herriot (2003) that the main purpose of an interview may be primarily to determine organisation fit rather than the narrower person–job fit, and also his distinction between organisation fit and workgroup fit. The findings show that the concern of selectors in seeking organisation fit will tend to be with values and personality. They also suggest the validity of the concept of person–operation fit since successful candidates would need to work anywhere in the organisation rather than in one workgroup alone.

They further support Ashforth and Johnson's (2001) claim that workgroup and occupational 'social identities' will tend to be sub-sets of organisational identity. But that the sub-sets are not derived from organisational identity but from operational experience, much as organisational learning in Legge's (2005) terms may be a misnomer since it is people rather than organisations that learn, with organisational learning strongly influenced by operational learning (Oliveira & Holland, 2007).

Implications of the findings

Overall, the findings question Dipboye's (1994, 1997) dichotomisation of structured and unstructured interview methods. They do not support the presumption of normative theory that one should not follow through on a candidates' answers, or the presumption that no time should be allowed for either respondents or questioners to clarify meanings. Rather, they suggest the following:

- Interfacing of conscious processes and what already is 'antecedently present to the mind' (Hume, 1739, 1740; Holland & Oliveira, 2013) may need not only the time which Tversky and Kahneman (Kahneman, 2003) intentionally denied their respondents, but considerable time in traversing (Wittgenstein, 1953) different attributes of candidates during the course of an interview.
- Dismissing less than explicitly structured methods in interviewing may underestimate both the reasons why interviewers widely opt for them and the unconscious logic (Matte Blanco, 1975, 1988) in their doing so.
- While there is an overwhelming case for structuring selection procedures, such as candidate screening and pre-interview psychometric and other tests, a combination of both structured and semi-structured assessment in interviewing may give a better outcome in terms of a wider range of sets-within-sets of criteria than relying only on explicitly structured interview methods.

- It may only be in a semi-structured phase of a panel interview that managers may be able to approximate an integration of cognitive fit and operational and organisational fit, which is becoming increasingly important in a context in which there are shifting job roles and limits to predictability of how candidates may be able to perform in them.
- Not following through discourse and requiring only 'straight answers', as in both Dipboye's (1994, 1997) recommended interview method and that of Tversky and Kahneman (Kahneman, 2003), may block not only an interviewee's understanding of a question, but an interviewer's understanding of the interviewee's answer.

11
Power and Panel Interviewing

This chapter illustrates leadership and power dynamics in selection decision-making. It relates this to Henry Mintzberg's (2006) claim that leadership can be found at any level rather than only at higher levels in organisations. It does so with reference to the earlier conceptual framework of conscious and unconscious logic, as well as to theories of position power, latent expert power, and operational power and also to Michel Foucault's (1975, 1978, 1980, 1982, 2002) concept of power–knowledge.

Not only from the top: Mintzberg

In making a claim for leadership potential at any level of an organisation, Mintzberg (2006) satirised a report in *Fortune Magazine* that in four years, IBM's chief executive Lou Gerstner had added more than €40 billion to the company's share value. Bluntly asking whether this was 'all by himself', Mintzberg delved down to what had happened and discovered that when IBM finally got into the e-business which had effected this, after neglecting it for so long that it almost 'lost it', it was because

> a programmer with an idea conveyed it to a staff manager with more insight than budget, and he stitched together a team that drove the change. And what role did Mr. Gerstner play? When he eventually heard about the initiative, he encouraged it. That's all. Instead of setting direction, he supported the direction setting of others. (ibid.)

Mintzberg then contrasted this with the presumed heroic leadership myth, still dominant in much American management literature, of

> the great one who rides in on the white horse to save the day, changing everything at will, even if he or she only arrived yesterday, with barely any knowledge of the organisation, its history or its culture. (ibid.)

By contrast, he claimed that there is a need to recognise that actual leadership roles in organisations bear little relationship to formal hierarchy, and are 'fluid, shared by various people in a group according to their capabilities as conditions change' (ibid.), and that leadership may occur at any level in an organisation, including lower operational levels. This is paralleled in the 'romance of leadership' case of Bligh et al. (2011), which criticises projection of success as an attribute of top-level leaders and affirms the need to understand the more complex lower-level processes in leadership.

Foucault and knowledge as power

Mintzberg's (2006) claim that leadership is not only 'from the top' parallels Foucault's concept of knowledge as power at any level (Foucault, 1975, 1977, 1978, 1980a, 1980b, 1980c, 1982, 2002). Commenting on Foucault's approach, Sheridan (1997) has described it as an analysis of how power relations are formed and how they operate not only in top–down highly structured organisations, but also at any workplace level and in 'groups of all kinds' (ibid., p. 184).

Yet Tully (1999, p. 90) has observed that Foucault analysed 'underlying practices rather than what agents say and do', and Foucault himself allowed that what was initially lacking in his early work *Order of Things* (1970) was the problem of the discursive regime and of the effects of power peculiar to the play of statements (Fontana & Pasquino, 1977).

Barratt (2003), with Hunt and Wickham (1994), Legge (1995) and Du Gay (1996), has suggested that Foucault's analysis of the power–knowledge relationship at lower levels of institutions can be enhanced by discourse analysis in operational contexts. This is consistent with Wittgenstein's (1953) case that contextualised interpretation of meaning is a condition of understanding, as in his extensive questioning of what we may mean by 'a game' and by 'the rules' for games, as well as asking

> when I say I understand a rule . . . what does this knowledge consist in? . . . Is what you call knowledge a state of *consciousness*, or a *process*. (ibid., p. 58, his emphases)

Foucault (e.g. 1980) also was directly concerned with games or regimes of power in highly specific contexts, rather than general claims to validity or truth, while 'power games' in management also are part of common parlance and no less important for that reason.

But the presumption that someone is 'playing' such a 'power game' implies that they are conscious of it. Barratt claims that Foucault's analyses presume 'that the parties implicated in power relations are always thinking, reflective actors' (Barratt, 2003, p. 1077). Vaara et al. (2004) hold that although Foucauldian approaches give little weight to the actors' own intentions, people can and do make intentional use of rhetorical strategies. Both of these comments on Foucault presume that the exercise of power, even at micro levels, is conscious and explicit.

But Foucault both stressed that the dynamics of power–knowledge tend to be 'immanent in discourse' and allowed that when power *as* knowledge is effective in gaining consent, this may be when its exercise is neither explicit nor consciously perceived as such (Foucault, 1978). This not only suggests that Barratt (2003) may be wrong but also parallels Gramsci's (1971) case that hegemonic power is more effective when it is not formal, overt or hierarchical, but rooted deeper in implicitly shared values, beliefs and convictions.

Implicit power

Foucault's concern with polyvalent levels and forms of power is well reflected in its myriad definitions within management literature, which include the following:

- *Position* power, located by Bouwen, (1995), as well as Boonstra and Bennebroek Gravenhorst (1998), in formal positions within a hierarchy.
- *Expert* power (French & Raven, 1959; Raven, 1992), gained from experience rather than only knowledge, abilities or skills.
- *Operational* power, whereby Hickson et al. (1971) have claimed that those individuals, units or departments that can cope effectively with demanding operational needs increase their power within organisations.
- *Structural* power, based on not only a formal position within a hierarchy but also the power to effect change, as identified by Pettigrew and McNulty (1998) and Hardy and Clegg (1996).
- *Cultural* power, which, according to Alvesson (1996), assumes a central role for shared values and shared meanings.

- *Power* dynamics, which may be less hierarchical than interpersonal and may both draw on and also challenge implicit institutional norms and values (Schein, 1994).
- *Latent* power, which then may become explicit in outcomes, as identified by Bradshaw (1998), including agenda setting in the sense of defining the issues that will be acted on in decision-making and which may be independent of any formal authority or hierarchy.

Anticipating Mintzberg (2006), Vroom and Yetton (1974) claimed that recognising informal power also implies recognising where it is located, at which level, in an organisation. Stewart et al. (1994) have also criticised the degree to which some management theorists have tended to assume that operational managers are just junior or subordinate versions of top managers.

Especially, it may be that operational managers will have tacit knowledge gained from implicit learning (Pettigrew & McNulty, 1998) of what really is needed to be effective in a challenging operational context. What they know is both more current and 'at the workface' than what more senior managers know, even if some more senior managers previously were operational managers since operational needs may well have changed, or even been transformed, since they were so.

Polanyi's (1958, 1962) point that tacit knowledge is what we have learned without being conscious of it also may be how one may tacitly learn to exert influence and exercise power. For Ambrosini and Bowman (2001), tacit knowledge is 'deeply engrained', while abilities or skills may be tacit simply because 'people never thought of what they were doing, they never asked themselves what they were doing, and nobody else ever asked it either' (ibid., p. 816).

This may also be the case in terms of managers exerting power at lower levels of an organisation without necessarily being conscious of doing so but rather assuming that they just are 'getting on with' their job, which is paralleled by French and Raven's case that expertise and experience themselves imply power even if those exerting it are less concerned with this than being effective in influencing outcomes (French & Raven, 1959; Raven, 1992).

Boonstra and Bennebroek Gravenhorst (1998) admit that groups can be influenced by unconscious power dynamics. Bradshaw (1998) stresses that taken-for-granted rules and routines and, therefore, tasks or roles which may benefit some groups more than others 'but that are not questioned' are powerful precisely because they are not (ibid., p. 21). In this

case, power to either aid or abet change may lie at deeper levels than many higher-level managers imagine.

Not for its own sake

Hogg (2001) has claimed that the most prototypical person within a selection group is likely to gain most influence, and that this is likely to be hierarchical, such as its chairperson. But the 'gatekeepers' deciding whether or not candidates pass a selection process, may not be those with formal, hierarchical power but those with the most relevant power–knowledge in Foucauldian terms, stemming from recent or, more probably, current operational experience. This could be consistent with the findings of Thompson and Walsham (2004) that there tend to be 'gatekeepers' to the most sought-after knowledge and experience in organisations.

It may also be that there are external drivers, in the sense of Bourdieu's external *forces*, which may challenge and change 'fields' or 'sub-fields' (Bourdieu, 1984, 1990, 2001) within management and decision-making. For example, normative selection theory, as a 'sub-field' within the 'field' of human resource management was developed in a 20th century Fordist era of stable corporations with defined Taylorist tasks and stable job fit. By contrast, the head of any division, department or unit of a private company exposed to global competition, downsizing and outsourcing, or a public corporation exposed to the same simply through pressure to reduce direct costs, cannot now assume this and may recognise the needs for post-Fordist multitasking, multiskilling and kaizen-style continuous improvement (Womack et al., 1990; Colenso, 2000).

In such changed, and still rapidly changing, external environments, an operational manager well aware of such needs may seek to exert power in a selection process, especially in final decision-making on candidates. But he or she does it less through seeking to gain recognition for expert power (French & Raven, 1959; Raven, 1992), though they may have it, than to ensure that the other members of the selection panel recognise such needs. Thus it may be that operational managers as selectors may exert power less 'for its own sake' than with concern to select candidates who can do the job well in changing operational and organisational contexts.

In this context, there may be a parallel with the distinction between directed and undirected emotions in the later Wittgenstein (1980), anticipated by Adam Smith (as described in Chapter 3, Figure 3.1),

and Smith's concept of an 'impartial spectator' (1759). This is similar to an operational manager being an impartial spectator in observing pre-interview tests, such as for ability and skills, yet also in being an 'impartial actor' in selection decision-making through concern to ensure that the selected candidates have the operational capabilities and organisational capacities to meet challenging and changing operational and organisational needs (Figure 9.2).

The discourse by which the manager does so may be less in terms of explicit logic, such as referring to such change and its challenges, than by implicit logic. Thus, in interviewing, an operational manager may implicitly define the dominant criteria domain of the panel by his or her own discourse. If other managers do not challenge this domain nor do so in selection decision-making, they tacitly acquiesce to the knowledge–power assumed by the informal panel leader or leaders.

Implicit logic and power dynamics in selection

Such suggestions are illustrated in the study reported now on post-interview evaluation of candidates and decision-making, which was the final stage of the same selection process for TV operators as reported in Chapter 10, with the same five managers as selectors, and similarly based on observation, audio recording and coded analysis of discourse.

Of the five managers in this post-interview evaluation and choice of candidates, the head of HRM (M1) simply chaired the panel and did not intervene in any discussion. The middle operational manager (M2) and junior operational manager (M3) were from News and Current affairs. Another junior manager (M4) was a training manager and M5 was the company psychologist. Neither M2 nor M3 had been present for all of the interviews, but all five managers had attended three days of trainability tests for a range of candidates averaging 20 years in age, from among whom 34 were shortlisted for interviews.

The target was to select 12 candidates for a three-month training programme. Passing the programme was a precondition for an offer of two years' probationary employment. Other than panel chair M1, the managers had been requested to rank candidates as 'Select and Offer Training' – the A List, 'Select' for a reserve B List, on the basis that previously some selected candidates had not taken up the training offer, or 'Reject'. Of the shortlisted candidates, 12 were selected and offered training, and 11 passed the minimal criteria for selection and were selected for the reserve B list but not recommended for training. The other 11 candidates were rejected.

The final selection stage of post-interview evaluation of candidates and decision-making combined both structured and semi-structured methods. It was highly structured in the sense that each candidate interviewed was assessed in sequence, and that the company psychologist always opened the discussion with a report on the pre-interview psychometric and role-play tests which he had conducted and whose results had not hitherto been made available to other members of the panel. But it was semi-structured in the sense that any member of the panel then could initiate discussion of the candidates.

Tables 11.1 and 11.2 show that company psychologist M5's discourse is exactly balanced in terms of sets of criteria concerning values, beliefs and personality (VBP) and knowledge, abilities and skills (KAS) and not highly imbalanced in terms of sets of criteria concerning person–organisation and person–role fit, if more concerned with the former than the latter. But it also shows that criterion domain for other managers is dominated by middle operational manager M2 in terms of person–organisation fit, with his discourse concerning this being ten times his discourse in terms of person–operation fit.

So what was going on? Was middle operational manager M2 simply 'throwing weight' to compensate for the fact that, due to operational demands, he had not been able to attend all the interviews? If so, what weight could he throw, not least if others on the interview panel perceived this as an explicit effort to compensate for such absence, and might therefore choose to discount it? If he was playing 'power games', were these conscious or implicit in his seeking to gain the candidates he wanted and to reject those whom he did not?

Table 11.1 examines this in terms of the discourse of members of the selection panel in terms of sets of criteria concerning VBP and KAS.

Table 11.1 Individual selectors' evaluation of personal attributes

	Sets of criteria			
Selectors' status and role	**Values, beliefs and personality**	**Knowledge, abilities and skills**	**Others**	**Total**
Head of HRM M1	0	0	0	0
Middle operational manager M2	34	17	20	71
Junior operational manager M3	8	3	5	16
Training manager M4	0	4	0	4
Company psychologist M5	56	56	14	126
Total	98	80	39	217

Table 11.2 Individual selectors' evaluation of role fit

Selectors' status and role	Sets of criteria			
	Person–organization fit	Person–operation fit	Others	Total
Head of HRM M1	0	0	0	0
Middle operational manager M2	60	6	5	71
Junior operational manager M3	1	13	2	16
Training manager M4	3	0	1	4
Company psychologist M5	70	56	0	126
Total	134	75	8	217

Table 11.2 does so in terms of person–organisation fit and person–operation fir rather than the narrower person–job fit.

The Head of HRM

In terms of position power (Bouwen, 1995; Boonstra & Bennebroek Gravenhorst, 1998), M1 both is the most senior member of the panel as the head of HRM, and its chair, and has the right to intervene in discussion, to call any panel member to order, and to call a vote if he so chooses. Yet he declined to take part in the evaluation of candidates. This implies that he values the expert power (French & Raven, 1959; Raven, 1992) of the operational manager M2 who socially constructs the criteria domain for candidate selection.

The middle operational manager

The post-interview discourse of middle operational manager M2 was far higher than that of any selector other than company psychologist M5, who saw his role only as giving information on the pre-interview psychometric tests that he had conducted. M2 was decisive concerning his own criteria domain and candidate preference. He put no question to training manager M4. His questions to managers M3 and M5 in post-interview evaluation concerned candidates whom he had not interviewed. His discourse was overwhelmingly in terms of person–organisation rather than person–operation fit, by a ratio of ten to one, and also with the VBP of candidates rather than their KAS by a ratio of two to one.

M2 had determined the criteria domain and discourse of any interview he attended, and his discourse constructed the criteria domain and agenda setting for candidate selection. He dominated both the dynamics

of those interviews he attended and the outcome of the selection process. Of the total of 18 candidates to be selected, the 12 whom M2 recommended to be selected and invited to train were all duly selected (the maximum quota for the A List) as were the 4 whom he recommended should be selected but not invited to train (the reserve B List). Of the nine candidates he recommended be rejected, all were rejected. None of the candidates M2 did not want were selected.

We suggest that this relates both to power dynamics in selection and to cognitive theory concerning dispositions, inferential and referential rationality, tacit knowledge and implicit logic outlined in earlier chapters, including also fractals in the sense of small fragments of discourse which referentially imply a wider whole. In citing examples of these when relating to candidates whom he had not interviewed, it should be borne in mind that M2 had attended all of the pre-interview trainability tests, and that his statements or answers to other panel members in discussion of candidates reflected this as well as his reference to the positive or negative attributes of candidates whom he had interviewed.

Thus, in candidate evaluation, training manager M4 had claimed of a candidate:

> He is really good. Did you note his test scores in maths and physics? He is brilliant in informatics and computing – a walking computer. We need to take him.

To which M2 answered:

> Yes, he's a walking computer. But his general knowledge is near nil.

In other cases concerning the difference between abilities and skills, the following are some statements by M2 based on his attendance at the pre-interview trainability tests:

> He is very good at audio, but he fits in a radio rather than a television environment. His handling of a camera is dreadful.
>
> What we really want to know, and sometimes there are some problems here, because it is one of the most difficult things to measure, is how much someone can capture in a sound. Yet in his case it is quite clear. He listens, but he has no ear.
>
> Although he knows the rules about animation, which materials to use, which light, which shadow etc., he just lacks creative sense.

> Yes, she can focus a lens. But she can't picture the shot through the lens.
>
> I agree he's good on most accounts, and he did a reasonable camera test. But he thinks of himself as an engineer, not a TV operator. He is into engineering, not television.

The implicit logic of M2's signalling which candidates he does not want is that other members of the panel would have to challenge him if they disagree. But, in terms of Bourdieu's dispositional logic (Bourdieu, 1984, 1990, 2001), they are not disposed to do so. The consent which he gains from other members of the panel is tacit. Not only were no votes called, but no other panel member challenged the implicit logic of his candidate choice.

M2 thereby is the informal leader of the panel both in the interviews which he attends and in the critical post-interview discussion of all candidates. He implicitly assumes and tacitly acquires power in setting the post-interview agenda for candidate selection. His doing so implies respect by other members of the panel for his current operational expertise as a manager in the most demanding of the production departments, News and Current Affairs.

That M2 has a decisive influence on selection outcomes is remarkable since he has been absent from more than half of the interviews because he could not attend them for operational reasons. His assumption of power in post-interview discourse is not formal or hierarchical since he has no formal role in the panel other than being a member of it. He is only a middle manager. Nor is the power which he exerts delegated in any sense other than that the panel chair M1 always consented to his leading discussion of candidates after company psychologist M5 had reported on their one-to-one pre-interview tests, to the extent that when panel chair M1 exercises formal authority, it is by deference to M2 rather than delegation.

The junior operational manager

Junior operational manager M3 interviewed 25 of the 34 candidates. He had no previous experience of interviewing and less experience of operational management than manager M2. M3 discoursed more in terms of person–organisation fit rather than person–operation fit in the panel interviews, then reversed this in post-interview evaluation, although the sample was too small for statistical significance.

Of the 15 candidates M3 recommended be selected, 12 were selected and invited to train (the maximum quota for the A List) and the other 3 were selected but not invited to train (the reserve B List). Of the

6 candidates he recommended be rejected, all were rejected. Of the 13 intermediate candidates on whom he was undecided before post-interview evaluation, 2 were selected and trained (A List), 6 were selected but not invited to train (reserve B List) and 5 were rejected. These included the 9 candidates whom M3 had not interviewed. M3 made only 16 interventions in post-interview evaluation, which also measured the degree to which he was tacitly conceding leadership on candidate choice to M2.

The training manager

Like junior operational manager M3, training manager M4 had no previous experience of interviewing, but was present at the panel interviews of all 34 candidates. He made only 16 interventions in post-interview evaluation. His criteria domain in interviewing had overwhelmingly concerned KAS in terms of pre-interview tests in mathematics and physics which he had set and examined, which then was echoed in his few contributions to post-interview evaluation.

His interventions in this are the lowest of the panel, a quarter of that of M3 and negligible in comparison with the dominance of the discourse of middle operational manager M2 or the contributions of company psychologist M5. With only one exception, M4 correctly assesses those candidates likely to be selected. But he is a follower, not a leader. His minimal contribution to discourse in post-interview evaluation suggests that he knows that his views are not likely to influence the final choice of the other selectors.

The company psychologist

Interviewing and selection are a key function of M5's job as company psychologist. He had been involved in all selection for managerial and operational posts within the organisation for some six years. He is the 'expert' selector in view of both his formal qualifications and that he had undertaken all the one-to-one pre-interview tests, as well as attended all the panel interviews. He had assessed more candidates across departments than any member of the panel other than the panel chair and head of HRM, M1. He also had operational experience since before choosing to qualify as a psychologist, he also had been a TV operator in the company.

Company psychologist M5 interviewed all of the 34 candidates. He makes the highest contribution to discussion in post-interview evaluation. He gives rather than asks information by a ratio of 25 to 1. This is consistent with his role of informing other panel members of the

results of the pre-interview tests for which he had overall responsibility under the supervision of non-voting panel chair M1, and on whose outcomes no other panel member had any knowledge before noting their own provisional recommendations for selection at the end of each panel interview. Thus training manager M4 had knowledge only of the outcome of the mathematics and science tests which he had set as part of the overall pre-interview assessments, while operational managers M2 and M3 knew only the results of pre-interview trainability tests.

M5's discourse in giving information was relatively equal between those candidates who were selected and invited to train and those candidates who were selected but not invited to train (the A and B lists). It was marginally higher in terms of those candidates who were rejected, which suggests that he was seeking to ensure balance and achieve procedural justice in overall evaluation. Of his total of 20 candidates to be selected, 3 were rejected. Of his total of 9 candidates to be rejected, 4 were selected. Of the 5 intermediate candidates on his B list, 2 were selected and invited to train.

Yet M5 does not get his way in selection decisions where the dominant criteria domain is set by middle operational manager M2 who gets all his preferred candidates and gains rejection of those whom he has signalled, by implicit logic, should be rejected as not in his view meeting minimal standards in terms of KAS.

Implications

The study showed that while the formal leadership of the interview panel was by the head of HRM, who chaired it, informal leadership in setting the criteria domain for candidate selection was assumed by middle operational manager M2, whose informal power was formidable granted that, while he attended all the trainability tests, short-term demands on his time in News and Current Affairs meant that he attended less than half the panel interviews, but decisively influenced selection outcomes.

The findings from the study confirm Foucault's (1970, 1978, 1982, 2002) claims for individual power–knowledge and that this both related to operational power rather than hierarchical power and can be informed by the discourse analysis which Foucault admitted that he had initially neglected (Faubion, 2000). But they suggest that this was not necessarily conscious 'power play' in the sense of Barratt's (2003) claim that Foucault's analyses presume 'that the parties implicated in power relations are always thinking, reflective actors' (ibid., p. 1077).

Clearly M2 would have been aware that he was dominating discourse both in the panel interviews he attended and in post-interview evaluation of candidates. But if his power depended on 'playing for it', he should have attended more of the interviews to do so and delegated the junior operational manager M3 to deal with the current operational demands to which he gave priority. He did not have to do so rather than implicitly assume leadership in the interviews he attended and tacitly gain consent for it in final selection decision-making.

His role in these regards suggests confirmation for the parallel with Smith's (1759) concept of an 'impartial spectator' and the distinction between directed and undirected emotions in the later Wittgenstein (1980), with the difference that M2, although an impartial observer of the pre-interview trainability tests, was an actor rather than only a spectator in post-interview candidate choice.

The implications of the findings also are that effective power may be informal rather than hierarchical, assumed rather than delegated, and acquired by tacit consent from others by authority gained from operational experience rather than from rank or hierarchy.

They confirm Bradshaw's (1998) concept of latent power as control of an agenda, which, in the study, was the criteria domain for selection choice. While they confirm Vaara et al. (2004) in their claim that there may be 'intent' in discourse, they suggest in M2's case that rather than this being seeking to acquire power, it was intent to gain the most appropriate candidates and those who would be likely to stay rather than leave during or after the training programme and thus remain 'anchored'.

The findings support Mintzberg's (2006) claim that leadership may be found at lower levels of an organisation, based on operational experience, and the case of Stewart et al. (1994) that operational managers are not simply lesser versions of top managers. They support Vroom and Yetton's (1974) relation of informal power to the locus of where it is deployed within the organisation, which was middle-level operational management in the department at the cutting edge of the corporate product – News and Current Affairs. They also confirm the claim of Hickson et al. (1971) that departments or operational units that can cope effectively with uncertainty and change may increase their power in negotiation processes.

They further indicate support for the claim of Pettigrew and McNulty (1998) that power is inherently situational and needs to be understood in terms of context, including both operational and organisational contexts, which corroborates both Bourdieu's (1977, 1979, 1980, 1990, 2001)

case on situational logic and Wittgenstein's (1953) case on the importance of understanding meanings in context.

They support the claim of Schein (1994) and Alvesson (1996) that cultural power implies a central role for shared values, norms and meanings and also the stress made in earlier chapters on the significance of tacit rules and implicit norms in organisations. Without these, it is unlikely that in the post-interview discussion M2 would have been able to define its criteria domain only by what was implicit in his discourse, dominate its selection rationale and gain tacit consent for his preferred choice of candidates simply by signalling which candidates he did not want, and why.

In general, the findings also support the case of Boonstra and Bennebroek Gravenhorst (1998) that groups can be influenced by less-than-conscious power dynamics, and that French and Raven (1959) and Raven (1992) have reason to relate the role of personal power to expertise.

But the expertise of power–knowledge in the study was that of operational management rather than expertise in interviewing or formal selection methods. M2 had extensive earlier experience of interviewing, but it was because he was a front-line operational manager that he gained tacit consent for the manner in which he defined the criteria domain and got the candidates he wanted. The 'expert selector' in terms of both training and with greater and wider interview experience for all appointments at all levels within the corporation, company psychologist M5, gained little influence on selection outcomes.

While the findings corroborate the case of Hogg (2001) that the most prototypical person within a selection group is likely to gain most influence, they qualify his claim that this will relate to hierarchy. M2 was a less senior manager than M1 who chaired all the panel interviews and post-interview discussion of candidates and selection decision-making.

Overall, the findings indicate that leadership and power may be exerted on the basis of respect for experience and expertise rather than deference to rank or hierarchy; that the granting of consent for such leadership and power may be tacit rather than explicit; and that while power in agenda setting may be with intent to determine outcomes, this may be implicit within the logic of an individual's discourse, rather than a rhetorical strategy with conscious intent to exercise power over others.

12
So Where Now?

As stressed from the outset, there is a strong case for structured selection procedures. But not that all interviewing should be structured, but rather should also allow for semi-structured discourse with candidates. Further, if a problem for normative selection theory is that many managers to a greater or lesser degree appear to disregard its recommendation of wholly structured interviewing, the fault may lie less with managers than in the theory, for several reasons.

First, while claiming to be inferential, the empirical base of the theory has been limited in many cases to simulations of personnel selection by students with no experience of managing, rather than analysis of how managers actually select.

Second, its cognitive basis is constrained in not recognising that correlating the multiple criteria that it recommends for a final judgement on candidates may be not only difficult, but impossible.

Third, in focusing on explicit criteria and inference, it has displaced findings from neural research that there is referential rationality interfacing conscious and unconscious processes with both explicit and implicit logics.

Fourth, the theory has marginalised issues that have become mainstream elsewhere in management studies such as the importance of tacit knowledge and implicit learning.

Fifth, the theory mistakenly dismisses intuition as sub-rational or irrational whereas it may be that it is necessary to integrate what otherwise are conflicting attributes of candidates.

Sixth, neural research also shows that the brain itself is a 'natural selector', which iterates in approximating understanding and that the same iterative process may explain different phases of a selection sequence.

This final chapter highlights the main points arising from this case and suggests some implications both for future research and for a conceptual framework that could inform it.

1. The empirical constraint

Chapter 1 summarised how Cable and Judge (1997) have recommended that the narrow preoccupation with person–job fit should be extended to person–organisation fit, while Herriot (2003) and others have recommended that there should be more concern with person–group fit and organisational or operational culture.

Yet Chapter 1 also recognised that there has been little research on person–organisation fit in terms of analysis of actual selection by managers, rather than simulations, or ex post questionnaires, and that the findings still were inconclusive, such as those from a survey by Meyer et al. (2010) into the role of culture in person–organisation fit, which they themselves stressed should be regarded as no more than provisional.

Chapter 1 noted findings such as those of Winfred et al. (2006) that person–organisation fit was qualified in practice by job experience. Also, it discussed the findings of Elfenbein and O'Reilly (2007) that gender and race influenced job fit and turnover intentions. It found that the assessment of person–organisation fit in relation to Schneider's (1983, 1987, 1994, 2001, 2008) attraction–selection–attrition (ASA) theory by de Cooman et al. (2009) was innovative in that instead of assuming a dyadic right–wrong presumption or fit or misfit, they found that both positive socialisation and negative attrition mechanisms were present at the same time.

The chapter further reported Hoffman and Woehr's (2006) findings that when the job is unrewarding and people are simply regarded as adequate for job fit, they do not identify with the organisation or feel citizenship with it. Also it showed that the findings by Vogel and Feldman (2009) from employees and their supervisors have suggested that research on person–organisation fit and person–job fit needs to examine not only person–group fit but also person–vocation fit. It noted Western and Eastern cultural differences in perceptions of person–job, person–workgroup and person–organisation fit as discussed by Morishima (1995), Sato (1997), Sekiguchi, (2004a, 2004b) and Ramesh and Gelfand (2010).

But Chapter 1 also found that while several of the studies just cited explored the concept of person–organisation fit, most of them concerned Schneider's attraction–selection–attrition theory in terms of the perception

of employees *after* selection rather than whether person–organisation fit was consciously or otherwise taken into account by managers as selectors (Schneider, 1983, 1987, 1994, 2001, 2008; Schneider et al., 1995).

It also noted that while such studies indicate that the near-exclusive concern of an advocate of structured interviewing such as Dipboye (1994) with person–job fit is unduly constrained, paralleling it only by a criterion such as person–organisation fit is less than definitive. The case study on selection reported in *Rethinking Interviewing and Personnel Selection* found that managers as selectors were centrally concerned with multiple dimensions of organisation fit based on personal dispositions.

However, although lamented in normative selection theory by Dipboye (1994, 1997), and initially by Guion (1965), this should not be surprising. Bourdieu (1977, 1979, 1980, 1990, 2001, 2004) has claimed that the 'habitus' of our past socialisation, including childhood, education and social environment, implicitly shapes our personal dispositions and predispositions of which we may or may not be fully conscious.

One of the main claims of *Rethinking Interviewing and Personnel Selection* is that if selection theory is to bear more relation to the realities that managers confront in selection, it should widen its conceptual framework to recognise such issues in cognitive and social psychology, as well as the philosophy of psychology and findings from neural research.

2. The cognitive constraint

Another of the main claims made in *Rethinking Interviewing and Personnel Selection*, following Robertson (1994), is that normative theory neglects that a conscious correlation and integration of the range of criteria that it recommends to achieve a final integrating judgement on a candidate not only would result in inferential overload but is not cognitively possible.

Thus it reported on Robertson's (ibid.) summary of the 'big five' personality constructs such as emotional stability; agreeableness; extraversion; openness to experience and conscientiousness, and on how he identified 'sub-factors' within them, such as whether people were impulsive, socially confident, group dependent, conventional and whether they were detail conscious.

Further, according to Munro Fraser (1978), such personality constructs also need to be related to work competences, such as capacity for analysis and judgement; interpersonal sensitivity; and resilience, energy and initiative, which in turn also need to be related with specific job demands and situational factors to be able to predict overall job performance and work proficiency.

Yet, as Robertson (1994) has indicated, correlating such explicit criteria is impossible in terms of inference alone. The conscious mind cannot cope with such inferential overload.

Besides this, the presumption of such theory that selectors should avoid sensing and feeling in assessment of the attributes of candidates neglects widespread evidence that all cognition tends to be felt and is bound to be influenced by values, beliefs and dispositions derived from previous experience. This, as well as the integral role of feelings in cognition and recognition, was emphasised by Bartlett (1932 [1995]) in reporting his experimental findings. Since when, as outlined in earlier chapters, research by a broad range of cognitive psychologists has recognised that dispositions affect both perceptions and judgements. Notably, Damasio (1994, 2010) and Goleman (1996) have stressed the role of the amygdala, which, if damaged, means a loss of both interpersonal feelings and capacity for simple decision-making.

This suggests that, rather than being an emotive non-rational factor which should be excluded from selection, feeling may be a necessary condition for any cognition or recognition.

Rethinking Interviewing and Personnel Selection has related this to dispositional and situational factors in selection, including differing dispositions of selectors at different stages in a selection process and how these may shift from initial concern with sets of criteria such as knowledge–abilities–skills (KAS) to concern with criteria such as values–beliefs–personality (VBP), even though managers may never consciously conceptualise these in the manner of selection theory.

3. Inferential and referential rationality

Normative theory claims the need for inference from 'facts' in terms of the attributes of candidates and the need for judgement on candidates to be 'objective'. *Rethinking Interviewing and Personnel Selection* has challenged this on a range of grounds, including both *Gestalt* psychology and the philosophy of phenomenology, which stresses that what is perceived to be objective depends on the subjectivity of the perceiver.

It has recalled that while David Hume (1739, 1740), with reason, has been claimed as a founder of modern empiricism, he also submitted that what we perceive or presume to be 'facts' depends on our assumptions. Moreover any current perception or inference necessarily connects to what is antecedently present to the mind in terms of sense-making from previous experience (ibid.) as since supported by connectionist theories and findings in cognitive psychology (Glöckner & Betsch, 2008;

Sadler-Smith, 2008; Glöckner & Witteman, 2010; Oliveira & Holland, 2012).

In citing this, previous chapters have distinguished inferential from referential rationality in the sense that inference – such as from the attributes of a candidate during a pre-selection psychometric test – may have validity yet may not be enough to be an accurate predictor of later performance (Fletcher, 1997) of multiple needs for operational and organisational fit. The inferential–referential distinction has drawn on Piaget's (1962) and Reber's (1993) concept of a 'cognitive unconscious' and the claim of the mathematician and psychologist Ignacio Matte Blanco (1975, 1988) that there is an 'unconscious logic' in cognition, which referentially connects current inference with sets-within-sets of meanings less than consciously acquired from earlier experience.

In considering the distinction between inferential and referential rationality, the book also addressed the question of verification and what philosophy for millennia has recognised as 'the problem of knowledge'. Qualifying Popper's (1959) claim that nothing can be verified rather than falsified, it has invoked the underrecognised claim by Hayek (1942) that if it is found that people recognise the same information in similar ways, this becomes a datum as capable of verification as any other, which then was supported in the discourse analysis of Chapters 9 and 10 of what managers consciously or less than consciously prioritise as of importance to them at different stages of selection.

4. Displacing the tacit and implicit

Previous chapters have cited Polanyi's (1958, 1962, 1968) claims for tacit knowledge or knowing without being aware of how we have come to know, as well as his claim that 'a tacit coefficient appears to be integral to all explicit statement or knowing' (Polanyi, 1962, p. 605).

Such an approach also parallels Reber's (1989, 1993) concept of 'implicit learning' in the context of tacit knowledge; Hasher and Zacks' (1984) analysis of the process of encoding information without awareness of how we have done so; and Nonaka's (1994) and Baumard's (1999) stylisation of individual and collective knowledge modes which interface what is explicit and tacit.

Yet selection theory rarely has sought to determine whether operational managers as selectors may draw on tacit knowledge and implicit learning in how they select, or that they may adopt tacit rules and implicit norms in interviewing which may have their own implicit logic without this needing to be explicit in order to be rational.

An exception is Harris, who has recognised that 'further research is needed to determine whether structured interviews and tacit knowledge measures exhibit similar relationships' (Harris, 1999, p. 149), which is what the second case study in this volume has sought to address and tends to confirm.

Other concern with tacit knowledge in the literature on selection such as by Sternberg (1997) and Sternberg and Wagner (1992) is that tacit knowledge is a structured derivation from previous experience. In which case, it may be that selectors are structuring what they think and what they seek even during what nominally is unstructured interviewing. The discourse analysis in Chapters 8 and 9 of what managers have in mind when they select has found confirmation for this.

There may also be implicit logic by which selectors manage to avoid bias and achieve high degrees of procedural and distributive justice in their interviewing of candidates who are selected and those who are rejected, as also was found to be the case in Chapter 9. Yet they may do so less because they are avoiding explicit bias in the manner recommended in selection literature than through a drive to survive, since implicitly knowing that if they do not select the most appropriate candidates for a job, the performance of their unit, department or organisation will be impaired and their own jobs thereafter may be 'on the line' through downsizing or outsourcing.

Tacit and implicit logics may also relate to power dynamics in selection and these can be identified from discourse analysis. Thus Foucault (e.g. 1978, 1980a, 1980b) allowed that power dynamics tend to be 'immanent in discourse' and allowed that when power as knowledge is effective in gaining consent, this may be when its exercise is neither explicit nor consciously perceived as such, as was found to be the case in implicit power dynamics in final selection decision-making in Chapter 9.

5. Dismissing intuition

Earlier chapters have suggested that much of normative theory is an example of left hemispheric premise-dependent thinking seeking finiteness. Yet neglecting this may narrow insight and displace right hemispheric sensing, feeling and intuition, which may be vital for even an approximation to understanding (Cutting, 1997; Panksepp, 2003; Lieberman, 2007; McGilchrist, 2009).

Chapter 6 centrally critiqued the claims of Amos Tversky and Daniel Kahneman (Kahneman, 2003, 2011) in their distinction of two systems in thinking, of which one is fast and intuitive and the other is premise

dependent, slow but more rational. It illustrated that Kahneman and Tversky's claims for verification of their method depended on simulations with students, rather than observation of managers such as had informed Mintzberg (1975) in his call for more recognition of intuition in decision-making.

The chapter challenged Kahneman and Tversky's presumption that intuition is instant, rather than the outcome of fast or slow preconscious processing, and criticised their insistence that the students responding to their questions should have no time to reflect before answering them. It has suggested that in not allowing any time for reflection and demanding an instant response, Tversky and Kahneman were denying the relation of conscious to unconscious processing, which may be critical for any intuition.

It has cited findings from research into the cognitive basis of 'quick responses' to questions that pressuring for them is less effective in gaining 'right answers' than actually distracting those being questioned, even for a few moments, when unconscious processing may be able to engage (Dijksterhuis, 2004). It also has shown that brief reflection can increase understanding and avoid mistaken decisions in highly pressured work situations, as in the introduction of keyhole heart surgery in a range of hospitals in the United States (Edmondson, 2003).

Moreover, neural research has shown that, rather than being a cognitive miser in the manner assumed by Tversky and Kahneman (Kahneman, 2003), the brain is an unbounded cognitive adventurer refusing to accept any boundaries. It is able to traverse any previous experience stored in memory before it may give us an insight that makes sense of what otherwise may be conflicting inferences. But this intuitive process is a right hemispheric rather than left hemispheric attribute, which insistence on narrowed explicit criteria in judgement and decision-making may deny.

6. Iterative logic and iterative interviewing

Neural research has confirmed the 'Neural Darwinism' of the Nobel Laureate in physiology Gerald Edelman (1987, 1992) by showing that the brain itself is a 'natural selector' which iterates in approximating understanding. *Rethinking Interviewing and Personnel Selection* has drawn on this in suggesting that interviewing is an 'iterative' process. Thus, as in initially travelling on a high road, its route may be initially straightforward, in a structured manner with the same information given or asked of each candidate in the same predetermined way. Yet a point may

then be reached at which a turning has to be made 'off road' to approximate a closer reconciliation of cognitive fit with the attributes known at varying levels of consciousness to be needed for candidate fit.

Besides this, there is the question of whether interviewers are aiming for a known destination in the first place, such as given specifications for a job in a stable environment, or are on a journey to an unknown destination, in which changing job competencies and changing environments mean that future needs cannot be known now.

Iterative method may also be either explicit or implicit in the *sequence* of an interview. Its first phase may be structured in that a standardised process of giving and asking information in the same way for all candidates may yield an initial candidate profile in terms of fitting or not fitting explicit criteria. But it may only be in a further semi-structured phase that selectors decide or 'come to find' that they need to leave the high road of structured giving or asking information and traverse other routes to try to arrive at a resolution in terms of what Guion (1965) recognised could be 'criterion dilemmas'.

If this is the case, it would suggest that semi-structured assessment may be adopted by managers as selectors when structured interviewing may not in itself allow them to gain a decision concerning candidates who do not 'directly' match their subjective cognitive fit of their attributes and what they know is needed for role fit in operational and organisational terms. At issue also is the degree to which assessment itself is a process of learning-by-doing, in which selectors informally, step by step, in an iterative manner, seek to gain more information on candidates than they can from the results of pre-interview psychometric or other tests, or from more structured interviewing.

Conceptualising structured and less-structured phases of an interview as complementary in the above senses may avoid the dyadic polarisation in selection theory such as that of Dipboye (1992, 1994, 1996, 1997) between structured and unstructured methods. Iterative method in interviewing confirms both the common sense process of 'trial and error' in seeking to gain a result and the heuristic method by which one may test and re-test a hypothesis to confirm it.

Implications

None of this implies that normative theory is wrong in advocating structured selection *procedures*. There is a strong case that selection should be structured. It nonetheless is not clear whether an interview should be wholly structured in the manner assumed by much of normative theory.

If this leaves questions that merit further research, they could include the following.

1. What conscious – or less-than-conscious – processes may be involved in managers seeking multiple dimensions of cognitive fit and candidate fit?
2. To what degree is logic interfacing conscious and less-than-conscious processing?
3. Are there different cognitive roles in structured and semi-structured phases of interviewing which involve different explicit and implicit rationalities?
4. Can these be identified from discourse analysis either from one-to-one interviews with managers who have experience of selection or from actual panel interviewing?
5. If there are different rationalities, how do they relate to different operational and organisational needs and priorities and to what may be structured and semi-structured phases of a panel interview?
6. If such different rationalities relate to different organisational and operational roles, how are they resolved in post-interview evaluation of candidates and selection decision-making?

If these are areas worthy of redirected research in personnel selection, it may be that they can be informed by the examples of sets-within-sets of explicit or implicit criteria which are illustrated in the Annex.

These indicate that there is rationality in what managers aim to achieve in selection, which implicitly fulfils mainstream selection criteria such as knowledge–abilities–skills and values–beliefs–personality – even though they may never have heard of them.

There also is rationality in overlapping schema (Bartlett, 1932 [1995]) and sets-within-sets of criteria (Matte Blanco, 1975, 1988) by which managers as selectors are seeking to approximate a closer correlation between cognitive fit and multiple dimensions of candidate fit even if wholly unaware of the concept of schema in Bartlett (1932), or of unconscious logic in Matte Blanco (1975), or of a cognitive unconscious in Piaget (1962) or Reber (1993).

Examples for such correlation have been illustrated in Figure 9.1 for

- KAS relating to operation fit and role fit, rather than only to narrow definitions of job fit;
- VBP relating to both organisational culture and operational climate;
- capability in terms both of KAS and person–operation fit; and
- capacity in terms of potential future person–organisation fit.

We suggest that this is not simply adding new criteria in the manner which the opening chapter suggested could lead to inferential overload and not be cognitively possible, since the sets of criteria and sets-within-sets are derived from what managers actually sought in both structured and semi-structured interviewing. In this sense, they conform to the principles of grounded theory in being derived from analysis of their discourse.

In addressing such issues, the case made in *Rethinking Interviewing and Personnel Selection* has been both theory and data driven. The data are derived from two case studies and only one service organisation, which may be a limiting factor.

Yet the organisation may be typical of what is needed for competitive advantage not only in services but also in manufacturing, including concern for multitasking and multiskilling rather than only single-job fit, effective team working and the concern of managers in the later stages of selection with the personality of candidates and whether they have 'creative aptitude' even though selectors may be unfamiliar with such a concept, as in Schumpeter (1911 [1949]).

Such findings do not challenge the case for structured procedures in selection including pre-interview psychometric or other tests. Nor do they challenge the case for structured interviewing in its aim to ensure that all candidates as much as possible are given 'the same interview'.

But they do suggest that there should be more explicit acceptance for complementing this by a parallel or sequential semi-structured sequence of interviewing to enable managers as selectors to gain a closer iterative approximation to integration of both cognitive fit and multiple dimensions of candidate fit. The findings further suggest that there is a case in management training such as in MBA programmes to introduce managers, in the manner recommended by Mintzberg and Senge, to key dimensions of cognitive psychology, philosophy and the philosophy of psychology.

Annex: Sets-within-Sets of Criteria in Panel Interviewing

RIS – research interview statement
IS – interviewer's statement to a candidate
IQ – interviewer's question to a candidate
IA – interviewer's answer to a candidate
DS – discussion statement to other selectors
DQ – discussion question to other selectors
DA – discussion answer to other selectors

1. Individual criteria

Specific knowledge

Criteria concerning knowledge that is related to operation fit.

RIS: *A specific knowledge test is crucial for the pre-selection of candidates for TV operators, because it covers much of the ground which they otherwise would need to be taught in the training course.*
RIS: *Specific knowledge, such as in maths and physics, is important because it helps candidates to understand the technology of focus, how a zoom lens works, thereby helping candidates get to know how to handle a camera.*
DS: *He is really good. Did you note his test scores in maths and physics? He is brilliant in informatics and computing – a walking computer. We need to take him.*

General knowledge

Criteria concerning knowledge relevant for both operation and organisation fit.

DA: *Yes, he's a walking computer. But his general knowledge is near nil.*
DS: *His test results are good. But we also need people who know something about life, something of history . . . and how the world actually is. He doesn't.*
RIS: *It is important that a candidate can distinguish between a million and a billion; that he knows that the Black Mountains are not in central Africa … They need to have a strong 'general culture' because in their work they meet people with different backgrounds. They need to be able to show that they know what is going on.*
RIS: *The General Knowledge Test stresses current day-to-day knowledge plus a bit of history. Since our mission is information, we need people with this kind of general knowledge. If someone lacks this, and conveys it, what are people going to think about my organisation?'*
DS: *He is really good. Did you note his test scores in maths and physics? He is brilliant in informatics and computing – a walking computer. We need to take him.*
RIS: *In order to be able to work here, you need to know what is going on around you . . . We cannot have anyone working for us without being aware of news and current affairs – and not only of national but also of international politics.*

Abilities

Criteria concerning the capacities and capabilities to be able to perform given tasks.

RIS: *We have tests to find out the motor skills and coordination which is the practical tests which they do with a camera. This is not just to do with the technical aspects of a camera, but with ability to coordinate.*

RIS: *There are other tests on memory of sounds. We give a sample of tapes with certain sounds for them to listen to, and afterwards we ask them to identify them. We also do tests on a studio sound and visual control table.*

RIS: *People in a production team need to be compatible. When given a problem, the team needs to be able to find a solution, for anything.*

DS: *He is very good at audio, but he fits in a radio rather than a television environment. His handling of a camera is dreadful.*

Skills

Criteria concerning being able to think and perform creatively above a given level of competence or ability, including cognitive, social and life skills rather than only technical job competence.

RIS: *Someone working in a live programme needs to be skilful in implementing what the producer means when he says 'shift to X'.*

RIS: *A TV operator needs a basic training to be able to perform a specific function which has a technical component of some kind. But, more than technical ability, he also needs creative skills. This is important, and the selection process needs to reflect this.*

DS: *What we really want to know, and sometimes there are some problems here, because it is one of the most difficult things to measure, is how much someone can capture in a sound. Yet in his case it is quite clear. He listens, but he has no ear.*

DS: *Although he knows the rules about animation, which materials to use, which light, which shadow, etc., he just lacks creative sense.*

DA: *Yes, she can focus a lens. But she can't picture the shot through the lens.*

Values

Criteria concerning personal values relating to individual and group behaviour.

RIS: *The journalists do not value the work of the TV operators and this comes as a shock to them. And, besides, the journalists have their own codes and values and think that the others do not value their work.*

RIS: *The journalists tend to think of TV operators as part of the furniture. Naturally they resent this, and with good reason'.*

RIS: *We need people who understand that the needs to work together and to value other people are real things in life. These are not only perceptions. This is how a TV company works. There is nothing special in this. They should not take this on a personal basis. It is part of the nature of the work.*

IQ: *You say that you like art and go to exhibitions. But what really interests you in an exhibition? What do you get out of it?*

IQ: *What kind of music programmes do you watch? Do you ever watch 'Jazz 1 to 5'? Do you know what it is?*

IQ: *What's your favourite newspaper?*
IQ: *And what do you like most about it? What do you look for first when you open it?*
IQ: *So far you clearly have valued working alone. Do you prefer it? Or can you see some value in team work?*
DS: *What matters is whether people really have cultural values and how they express them.*

Beliefs

Criteria concerning something believed in, carrying conviction.

RIS: *When interviewing a candidate I need to get the feeling that he or she believes in the work that we do.*
RIS: *It is important to select people who believe in what they are doing.*
RIS: *I think that it is a tremendous mistake to select an operator on the basis that he thinks that he is going to be an operator for ever . . . he also needs to believe in the TV phenomenon.*
IQ: *You say you believe in team work. But in what ways?*
DS: *More than their ability or skills in working with equipment, we need to know what candidates believe in and what really counts for them.*
DS: *Apart from the fact that his contact with a camera is coincidental, we need to know whether he really believes in working in TV and if he really wants the job.*

Personality

Criteria concerning motivation, commitment, readiness to learn, adaptability and flexibility.

RIS: *People working anywhere in this company need to be able to handle psychological pressure. They need to be someone with great self-control. And this is the reason why we need an interview.*
RIS: *Knowledge alone is not enough. The individual needs to be someone who knows how to work in a team, and not be isolated.*
RIS: *In the psychometric tests, the psychologist talks with the candidates and asks them questions about their personality. But there are bound to be limits to that test, which is why we need to interview.*
RIS: *TV operators not only need to be able to learn, but also need to be able to act. They need to be people with a sense of show and for the spectacular.*
RIS: *Our first test is about filming, but also capacity to create and innovate. For instance, to capture candidates' imagination and creativity, there is a particular visual test. We give them slides and ask them to put them together to tell us a story.*
RIS: *TV operators need to be creative, to be able to invent. For example, when I was part of the interview panel, I used to ask 'what does yellow mean for you?' For many people, this is a ridiculous question. But it is a question from which the candidate should be able to develop a theory of what yellow means for him.*
IQ: *In an uncertain environment, like a demonstration, would you play safe, or take some risks?*
IQ: *Do you normally tell people what you think?*
IQ: *Let me put it differently. Do you see yourself as an introvert or an extrovert?*
DS: *He is communicative, sociable and shows a natural capacity to empathise.*

DA: *Yes, I can see from his CV that he has been doing quite a lot of amateur work with video, but I need to know better: whether he really enjoys film, whether he has a vocation for it and, if so, whether it is with us.*

DQ: *I just think we need to know more about him and especially his attitude to things. I don't yet see what kind of person he really is. Can you tell us more of what came out of his psychometric tests and his one-to-one interview?*

DS: *He is good on the test scores but we need to make sure that he is really interested, that he can enthuse about the job.*

DA: *I don't like the word discipline and I like people to be themselves. But one of our key concerns is behaviour within the workgroup and some people may be good in trainability tests but simply lack discipline.*

Person–organisation fit

Criteria concerning understanding of and potential to fulfil a range of roles within the organisation, which serve, enhance or safeguard its mission.

RIS: *It is vital when we select people that they know what sort of organisation they are coming to work for. It is important to tell them that they need to travel a lot, they need to work during weekends and evenings, and we need to find out their availability for such a kind of work.*

RIS: *Rather than the psychometric tests, the interview can give them a better sense of what is expected of them; that they need to work on bank holidays and sometimes in their own free time, in the evening. In any one day, they need to leave work at 2.00 in the morning and be back by 8.00 that morning. This is the everyday basis of this organisation. And they will have to get to know and accept this if they are to be able to do the job.*

IS: *We have a mission here, which is public broadcasting. It means programmes of consistently high quality which demonstrate both our professionalism and our role as a public corporation.*

IS: *We know you already have a university degree, and you know what some other candidates do not. But we have to advise you that this does not automatically entitle you either to higher status or pay. If we take you, it may be relevant in due course when you might be considered for promotion, but even then would be taken in the context of how you have performed in training and how well you have done with us by then. So you need to understand that you are applying at this stage to be a TV operator, not an executive.*

Person–operation fit

Criteria concerning understanding and accepting to perform multiple tasks.

IS: *We have cameramen, sound technicians and film editors who also may need to be lighting technicians, or video editors. We need our people to be multiskilled, able to do different jobs in different situations.*

IS: *The most common image of working in a TV station is of someone who works with a camera. But there are many other jobs such as a sound technician or a lighting control operator. And there are situations in which a single job is multitasked.*

IS: *You really need to be aware that having a job as a TV operator means always working in a team.*

RIS: *In the first place, we need candidates who are neither blind nor deaf. What does this mean? It has nothing to do with the selection procedure. It has everything to do with the education system . . . From primary through secondary levels, nothing is demanded or given. The education system didn't give them the opportunity to develop their ability to listen and to see.*

RIS: *I always ask candidates 'How many exhibitions have you visited? Most of them reply 'none'. And when I ask 'why not?' they reply 'no one suggested it'. It is in this sense that candidates can see and hear but also are blind and deaf. They look at a painting and say 'it is beautiful, I like the colour, I like the composition' but they never are concerned with the force lines, the focus of interest, the philosophy or psychology of shape, nor know what it is. But I need this in the job.*

RIS: *If I want to select TV operators, I'm not going to give tests to see if the candidate would be good as a producer. This is obvious. But now, in a company needing to rejuvenate itself and move, I believe that it is a tremendous mistake to select an operator on the basis that he is going to do one job forever.*

RIS: *A TV operator needs to be someone who has the potential to later do something different, who wants to be more than a TV operator.*

RIS: *We want candidates who will be able to work under any conditions at any time.*

RIS: *People working here need to be really available, and this is very difficult for some of them to grasp. When we ask if they understand it, obviously, everybody says 'yes' in the interview. But it sometimes happens that a year later a candidate doesn't remember that he said 'yes' about his availability and thinks that the company now is stealing his time.*

2. Interrelated sets of criteria

Criteria relevant to cognitive fit and candidate fit in terms of sets-within-sets of meaning (Matte Blanco, 1975) and cognitive overlapping (Wittgenstein, 1953; Edelman, 1992; Bartlett, 1995) of individual criteria within a set.

KAS (knowledge–abilities–skill) relating to operation fit

RIS: *The TV operator on the sound-mix controls needs to be very focused and not distracted; the material needs to be on the air at the right time, to fractions of a second, and therefore he needs to be able to react quickly to the cues from the producer.*

DS: *Animation works within well-defined rules, and they must know and respect them. But they also need to be able to add something beyond the rules, something creative, and he doesn't.*

DS: *We know the rules for filming. The lighting must be right and the shadowing good. She knows the rules. But in the trainability tests, she showed no creativity. She could not give a story to the picture. It just never came to life.*

RIS: *We want to select people who can work in a TV company, which means not only people with good audio and visual capacities, but also the ability to do any job any time anywhere.*

RIS: *It depends on the programme . . . The cameraman who works in a studio, for example, in a News Studio, with a fixed background, with people always seated in the same position and in the same place, nearly always can give the public the same shot. The operation is almost automated. The studio News cameraman has*

a specific formal language that the others don't have in doing live programmes. The creativity is much less than what is needed by an outside cameraman.

VBP (values–beliefs–personality) relating to operation fit

RIS: *If I have a TV operator with whom everything is always OK, something is wrong. He is just fitting himself to the task in hand and is not expecting enough from the job.*

RIS: *People in a production team need to be compatible. When given a problem, the team needs to be able to find a solution, for anything, which means a disposition and readiness to work with, give to and learn from others.*

RIS: *A cameraman directly or indirectly influences the product with his own decision about how to deliver which image the producer wants, and even may suggest the image. So whether he or she is good at this counts.*

RIS: *In the News Department, it is important – indeed vital – to select people who know how to understand different belief systems and put them in perspective.*

IQ: *What we need is someone who can not only do a range of jobs but also bring a passion for television and what we are doing here. Do you think you have this? Can you show me how?*

RIS: *TV is teamwork. This is the reality. If people don't understand this and tend to marginalise the other group, that is the end of a TV company. When there is marginalisation and undervaluing of other groups, then conflicts and rivalries appear and embitter the working atmosphere.*

RIS: *Every single group tends to claim that their work is the most important for the final product. Yet without teamwork, TV wouldn't exist. Imagine watching a TV with no sound . . . I need to make sure that all my staff believe that other people's work is important for the final product.*

KAS relating to organisation fit

RIS: *When we select people, we don't select them for specific functions. We select them to be able to work in any part of the organisation, here or there.*

RIS: *The people we need must be able to switch from this part of the organisation to another at a moment's notice, for instance, if we need to move them because of absenteeism or health. They will need to know how to work in any job in any area of the company.*

RIS: *There isn't only one job here but many. Today we have one job. Next year we have others. There is a need for continual job updating without effort . . . They have to understand that this is what is implied by being part of this organisation.*

IS: *A TV operator will be working in different departments such as Production or News and Current Affairs, and within these departments, he can do many different things. There also are sound and light mixers or workers in continuity, nor forgetting video-tape operators and scenery or graphic design. So don't get the idea that when you apply to be a TV operator, this means only working with a camera. There is a huge range of job roles in working for a TV station.*

IS: *If you join us, you would be doing different things in different departments at different times. The job is always changing. It is never the same.*

DA: *His test results are good. But the reason he did well in the one-to-one interview and the reason he knows everything is that his wife is a script editor and his father-in-law also works with us.*

VBP relating to organisation fit

IS: *We need you to understand what it really means to work with us. This is more than doing a particular job, and more than team working. It means believing in and contributing to the mission of the corporation.*

RIS: *We need to select people who are motivated to work in the TV business, and we take the selection process seriously because we want successful candidates to do well in the training course and stay with the company. The training course takes a lot of time and is demanding in resource terms.*

RIS: *One of the problems in this company, which occurs quite often, is that people feel they are not valued for what they are doing. In particular, in the case of TV operators, the issue is the relationship with the journalists who in their own view and that of the public as well, are the front line of the organisation. In fact, the journalists are the front line, but they think that the TV operators are simply an extension of the machinery.*

RIS: *You have no idea how much trouble I had when I applied to work in the training department. One of the interviewers, after I had been selected, came to me and said: 'You are so young; you have such good ideas for the training department. But you are crazy. You won't get anywhere here.' This happened because he thought training was a routine thing. On the contrary, it's not true. It's a great mistake.*

RIS: *The life style of a TV operator is the most irregular you can imagine. Even when it is well planned on a monthly basis, it still remains irregular. I really want candidates to understand not only that life here does not have a routine timetable, but that they need to fall in love with television.*

IS: *I don't want you to imagine that working for a TV station is always interesting. Sometimes being here all day and taking orders can be very boring'.*

IS: *'Outside assignments can be fascinating. But you should realise that they also can mean waiting around in any kind of weather with nothing much to do for a long time.*

Operational capability

Person–operation fit in terms of KAS and personality

IQ: *You avoided some of the maths questions, yet your other answers were good. Is this because you found them hard, are you not convinced that you need much maths to be a TV operator?*

IQ: *You did well in a range of the tests. But you did not perform well in visual, especially the use of camera. Have you no experience of using a camera? Had you not handled a video camera before?*

DS: *I agree he's good on most accounts, and he did a reasonable camera test. But he thinks of himself as an engineer, not a TV operator. He is into engineering, not television.*

DS: *I can see the motivation. And she knows something about film. But it just is not clear to me that she is up to the job.*

Operational culture

Person–operation fit in terms of VBP

IQ: *Television is a creative medium, but not everyone can be creative all the time. Sometimes you may be spending hours in a studio just taking orders on cue from the director. Do you realise this? Could you cope with it?*
IQ: *Overall, television is exciting. But being a TV operator, in some jobs for some of the time, may be much less so. You have to accept directions without questioning them even when you think you have a better idea. Have you grasped this?*
IQ: *What we do here often demands considerable pressure. A TV operator needs to take instructions from a studio manager, on cue, on time, sometimes in milliseconds. We can train you to do this, but do you think you could accept it?*
IS: *Successful television depends on successful teamwork. As a TV operator, you often would be told rather than asked what to do, in a pressured environment, especially in live broadcasting, even if there later is time to discuss what was done.*
IS: *If you think of film directors, you probably think of the big names. But working as a TV operator is different. You mainly will be working in a team, and need to be able to do this well because good results depend on good teamwork. We want to make this plain to you.*

Organisational capacity

Person–organisation fit and career issues in terms of KAS

IQ: *You clearly like both television and drama and we combine both. But while your experience in drama and of theatre is of interest to us, and while we know of your abilities in film, we need to know that you understand that being a TV operator involves less than that. We may need you to work in a programme which has nothing to do with drama. Do you appreciate this?*
IQ: *We know that you have done a lot of film and you performed well on your visual and audio tests. But have you grasped that being a TV operator is not simply sight and sound? Do you realise that you may have to do any job anywhere in the organisation and not only camera work?*
IQ: *You have done well in the audio, visual and manipulative tests. But you are weaker in other areas which are important for us, such as general knowledge of events. If we accept you for training, we would want to know that you would make good use of your trainee time in News and Current Affairs to gain this. If we select you for training, could you recognise and agree to this?*

Organisational culture

Organisation fit and career issues in terms of VBP

RIS: *We know that a TV operator must be a realist. But we also expect that he comes to it with the idea of making a career in television; that he is passionate about this; that he also can fulfil personal, professional and emotional aspirations; and that he feels he has got not only a job but a career which he can love.*

IQ: *You were brilliant in the video trainability tests. But you must realise that the job is not just film. In due course, you could be a floor manager, or a director. But not overnight. And some of this in the interim is tedious. Have you really grasped this?*

IQ: *We know you have applied to the film school. But if given the choice of a placement with us and with it, which would you choose?*

IQ: *We know that you are doing your degree course in business studies. Could you cope with just being a TV operator if we select you? What if we can't promote you when you graduate? Could you face up to this?*

IA: *Well, we want to make clear that this may be a problem. We can't guarantee you promotion just because you graduate. And we would not want you to have a chip on your shoulder because of it.*

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