

**SYMPOSIUM**

# Nineteen propositions concerning the nature of effective thinking for career management in a turbulent world

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**ABSTRACT** *It is argued that some of the literature on post-formal thinking, wisdom, expertise and cognition can contribute substantially to the theory and practice of careers guidance, counselling and management, but has not yet done so. Material from these interrelated strands of the adult cognitive development literature is discussed, with particular reference to the changing nature of careers. On the whole, the research and theory examined point in similar directions, and share some key concepts of relevance to careers. Propositions concerning the thought-processes characterising effective management of careers by individuals are put forward. Implications of the propositions for careers guidance and counselling are discussed.*

## **Introduction**

It is generally agreed that changes in the labour market are having a significant impact upon the nature of careers that people can expect (e.g. Collin & Watts, 1996; Jackson *et al.*, 1996). The extent and irreversibility of these changes are still a matter of some debate (e.g. Guest & Mackenzie Davey, 1996), and it is acknowledged that the so-called bureaucratic career (Kanter, 1989) involving a predictable sequence of roles of increasing status within one occupation or organisation was always the preserve of a minority. Nevertheless, there are now noticeable labour-market trends in several directions. These include temporary contracts, employment insecurity, ever-changing skill requirements, teamworking, working as an independent contractor rather than an organisational member, working at (or from) home, and the probability of spells of unemployment.

On the back of these trends come some imperatives for individuals. There is a greater need for flexibility concerning the kind of work one does and with whom one does it. Continuous learning is required, and not just for younger people. Estab-

lishing and maintaining networks of contacts, and one's employability, are important. Career decisions need to be made and implemented more frequently and perhaps with more tenacity and skill than was once the case. Career theory and career interventions therefore need to take increasing account of the *processes* involved when a person manages his or her career in a changing world, rather than concentrating solely on *outcomes* like current career choice or career satisfaction/success, which are likely to prove increasingly ephemeral (Kidd & Killeen, 1992). In other words, more attention must be devoted to the cognitive processes employed by individuals in managing their careers. Indeed, Spokane (1992) has argued that the ways in which people process career-related information are more important than the characteristics of the information itself. Furthermore, these processes need to be well-suited to handling a fast-moving and relatively uncertain environment, rather than a static and predictable one.

One potentially profitable avenue is to consider the extent to which a person thinks in advanced, wise and expert ways about his or her career. This requires application of research in adult cognitive development. The remainder of this paper briefly describes selected features of that research, and derives some propositions about the thought-processes that characterise effective management of one's own career. These propositions and their implications for careers guidance and counselling are then discussed.

### **Adult cognitive development**

Four interrelated strands in adult cognitive development contain material useful for present purposes: post-formal thought; wisdom; expertise; and cognition and social cognition.

#### *Post-formal thought*

Many slightly different approaches fall under this banner. They have in common the idea that development of reasoning does not finish in adolescence. Theorists in this tradition criticise Piaget for that conclusion, and contrast his formal-operations stage with what they consider to be higher forms of reasoning. They also argue that much of Piaget's work was based on understanding of physical relations, not social or moral ones—although this is not entirely fair, given that relatively early in his career he published a book entitled *The Moral Judgement of the Child* (Piaget, 1932). There are some differences (although also many similarities) in the names and features ascribed to the so-called higher stage(s) of reasoning, and disagreement about whether higher-level reasoning is really qualitatively distinct from Piaget's formal operations stage, or simply an extension of it. There is general agreement, and some evidence, that the extent to which a person uses post-formal thought is only slightly correlated with age and conventional measures of intelligence. As Law (1996, p. 61) has asserted, learning often depends more on openness than on intelligence *per se*.

Kramer (1989) argues that the various models of post-formal thought have

three general features in common. First, they demonstrate awareness of the relativistic nature of knowledge—that is, that information is derived from sources and filtered through intermediaries with their own values and perspectives. It is not neutral or objective. Second, there is an acceptance of contradiction, between for example thoughts and feelings, or competing self-perceptions. Third, ‘advanced’ thinking rests upon an integration of contradiction into a dialectical whole—that is, into a ‘big picture’ in which apparent contradictions and conflicts are resolved. In the interpersonal, and possibly intrapersonal, realm, the integration of apparent contradiction implies the ability to ‘decentre’ and see the world from other value systems, but also the ability to find threads connecting those different systems and to come to some judgement on their relative merit, without the assumption that such a judgement will reflect an absolute truth.

An illustrative model of post-formal thinking is provided by Kitchener (e.g. Kitchener & Brenner, 1990) in her ‘reflective judgement’ model. Kitchener proposes five stages of thinking, building from the most basic level:

- (a) The person believes in the existence of an absolute truth known to everyone.
- (b) The person believes that information objectively exists, and that it can be certain or uncertain, known or unknown. With appropriate effort, this information will become known at a later date.
- (c) The person believes that reality is subjective, and that therefore any reality is as good as any other—that is, complete relativism. There is no basis upon which to decide whether one version of reality is any better than another.
- (d) The person believes that reality is subjective, but recognises that individuals still have to make decisions and act upon the basis of some rationale rather than randomly. The person therefore examines the evidence for different versions of the ‘truth’, but views his or her conclusion as a reflection of his or her own values rather than as an objective reality.
- (e) The person acknowledges not only that reality is subjective, but that the nature of knowledge itself—upon which a person builds his or her ‘reality’—is uncertain. Knowledge, too, is subject to interpretation and to the values and context within which it is generated.

It is possible, though not simple, to assess a person’s level of thinking in these terms. Kitchener & King (1981) have developed and used the Reflective Judgement Interview. It poses people with four ambiguous problems, each defined by contradictory points-of-view: these concern history, science, current affairs and religion. It is administered by a trained interviewer with some standardised probe questions. A person’s verbalised responses are scored according to their match with different levels of reasoning.

Other closely-related stage models of adult thought have been offered. The differences between them are probably not crucial in the present context. Perry (1970), for example, put forward a scheme which runs from conformity and authority determining the correct answer; through acceptance of different points-of-view but belief in an absolute right and wrong waiting to be discovered; and through

relativism, where one cannot rely on an absolute truth; to committed relativism, where choice is made in a relative world based on fit with one's values and morals rather than on an objective truth.

So what are the implications of all this for careers? The first point to make is that most of the above models were developed principally to study very generalised ways of thinking, or thinking about uncertain and abstract issues (e.g. moral, ethical). In careers, there are perhaps more objective truths (e.g. qualifications required for certain kinds of work) than the models of post-formal thought are geared for. Nevertheless, they do have considerable potential application to careers. They suggest a number of propositions about the characteristics of 'advanced' career thinkers:

- (1) They will reject the idea that there is one and only one ideal career for them, if only they can find it.
- (2) They will not, however, go to the other extreme of concluding that all careers are equally suitable or unsuitable for them.
- (3) They will be open to the possibility of personal change through the process and challenge of tackling career problems. That is, they will not construe the self as an entity constant in composition and nature, around which the world must be arranged.
- (4) They will recognise and tolerate apparently contradictory tendencies (e.g. preferences, values) in themselves, but seek a new framework within which to explain such contradictions.
- (5) In doing this, they will engage themselves in an internal dialogue in which the 'speakers' argue from substantially different value positions.
- (6) They may over-complicate comparatively simple career problems. That is, they may automatically invoke some of the processes described above when considering straightforward issues of fact or issues of minor personal importance.

### *Wisdom*

The literature on wisdom is somewhat intertwined with the literatures on post-formal thought and on expertise (see next section). However, it also has a very long life of its own. Attempts to analyse the nature and significance of wisdom certainly go back as far as ancient Greece, and the danger of cultural specificity in defining it is more evident than in the literature on post-formal thought reviewed above. Nowadays it is generally agreed that wisdom is a multi-faceted phenomenon which includes practical know-how and self-insight as well as a store of knowledge (Cowan, 1995). For example, Assmann (1994) suggests that there are four discernible approaches to wisdom:

- (a) Extension—the wise person knows more than the ordinary person.
- (b) Depth—the wise person knows deeper than the ordinary person.
- (c) Difficult accessibility—the wise person knows what is beyond the reach of the ordinary person.

- (d) Wholesomeness—the wise person knows what is good for self or another person.

Arlin (1990) makes a case that an important basis of wisdom is problem-finding. She says that elements of problem-finding include: a preoccupation with questions rather than answers; a search for complementarity amongst different points of view (cf. post-formal thought); detection of asymmetry or contradiction even when at first sight everything appears neat and tidy; openness to change; and a taste for problems of fundamental importance. Kramer (1989) sees wisdom as the integration of cognition and affect—as these are often in opposition to each other, this might be considered a special case of dealing with contradiction. Meacham (1990) advances what he acknowledges to be an unfashionable argument—that wisdom typically declines with age. He proposes that wisdom concerns getting a good balance between certainty and uncertainty, ‘knowing without excessive confidence or excessive cautiousness’. Often older people become too certain, and also insufficiently attentive to the different perspectives younger people may have on life. On the other hand, they may be confused by the pace of change and become unnecessarily uncertain about many things. Meacham argues that it is best to construe the development of wisdom as moving from wisdom about simple, narrowly defined things, to wisdom about complex, general things.

The most systematic and thoroughly investigated recent approach to wisdom is that of Smith, Baltes, Staudinger and colleagues (e.g. Baltes & Smith, 1990), who are part of a research team based in Berlin. They see wisdom as ‘a cognitive expertise ... in the domain of fundamental life pragmatics ... visible in situations related to life planning, life management, and life review’ (Smith *et al.*, 1989, p. 311)—or, in everyday language, as ‘good judgement and advice about important but uncertain matters of life’. Baltes and colleagues propose five general components of wisdom: (1) rich factual knowledge about the conditions of life and its variations; (2) rich procedural knowledge—the repertoire of heuristics and procedures for organising and manipulating information; (3) life-span contextualism—understanding that events are embedded in age-related, socio-historical and multiple life domains; (4) relativism—knowledge about individual differences in individual and cultural goals, values, priorities; and (5) knowledge of the relative indeterminacy and unpredictability of life.

The Berlin group argue that few people will show high levels of wisdom. Those who do are likely to have accumulated extensive personal or vicarious experience of various conditions of life, to have received or made for themselves numerous opportunities to learn, and to have at least a moderate level of self-efficacy. From this, the Berlin team suggest that wise people are more likely to work in human service professions than other professions, and to be older rather than younger. They are likely to have experienced a mixture of success and failure, periods of structured study, and mentoring. Some of their findings (e.g. Staudinger *et al.*, 1992) suggest that on average there is no difference in the mean wisdom scores of old and young adults. There is, however, a tendency for older people to do better on case-study

problems involving an older person than on problems involving a younger person. But there is no reciprocal tendency amongst younger adults.

The Berlin approach to wisdom can be criticised for taking a relatively narrow view, treating it as an expertise rather than as something more all-encompassing. There is also the problem that they acknowledge the element of empathy and good advice-giving in wisdom, but do not carry it through into their assessment of wisdom. Regarding assessment, Smith & Baltes (1990) have developed a technique where a person is presented with a small set of problem situations which require skills of life review and/or life planning for their solution (the problems include some career-related themes). The person is asked to talk through his or her analysis of each one. A manual has been developed for the training of raters to score responses on the five wisdom criteria (Staudinger *et al.*, 1994), and reasonable inter-rater reliability has been achieved. Interestingly, it seems that scores derived in this fashion correlate quite highly with global judgements made by untrained raters about the wisdom of the responses. This shows the face validity of the approach—or alternatively that careful briefing/training of raters is unnecessary!

Taken as a whole, the work on wisdom suggests the following propositions about the nature of wise thinkers about careers. These propositions are consistent with those listed above, in so far as they again reflect the need to cope with indeterminacy and contradiction. But they go beyond the earlier propositions by giving roles to factual knowledge and interpersonal skills.

- (7) They will possess a great deal of knowledge about careers. This includes information about the nature of work in different fields, entry requirements and, more broadly, commonly experienced issues in careers.
- (8) They will be aware of and value the variety of perspectives which different individuals and groups may bring to their careers. This awareness will enable them to relate factual information to alternative value orientations.
- (9) They will be able to cope with the idea that there are no certain solutions to career problems, and to differentiate between what they can know with reasonable certainty and what they cannot.
- (10) They will be skilled at giving advice or counselling about careers, and be seen by others as empathic.
- (11) They will have a set of heuristics for organising information about career problems. That is, their conceptual structures for classifying and solving career problems will be well-defined, though not inflexible or impervious to change.
- (12) They will acknowledge and tolerate discrepancies between what they think and what they feel, and will seek a constructive resolution of such discrepancies.

### *Expertise*

Rather than identifying constructs hypothesised to be the source of superior performance, the expertise approach concerns the identification of features of superior

performance under standardised conditions (Ericsson & Smith, 1991). Starting with analysis of chess players (Chase & Simon, 1973), features of memory encoding and retrieval and of problem-solving have been examined, usually through comparison between experts and novices.

The intrinsic value of expertise has been questioned. Cowan (1995) cautions that the progression from novice to expert is too highly valued in work organisations. It implies a narrowing of knowledge and an emphasis upon right answers and linear thinking, in contrast to the more flexible and indeterminate patterns required in the (post) modern world. Nevertheless, Cowan (*ibid*, pp. 11, 12) concedes that wisdom might be considered a broad-based expertise in the real world, containing an element of the 'expert novice' who is always willing to learn.

In research, experts are typically defined as people who have fairly or very long experience in a domain, and who are nominated by their colleagues as being good at it. Such people tend to differ from novices in many ways (for reviews, see Ericsson & Smith, 1991; Hoffman, 1992). First, they have a better memory for information relevant to the area of their expertise (but not necessarily for other areas). Second, they classify problems in their area according to sets of features rather than individual ones, and underlying characteristics rather than surface ones. Third, precisely because experts have well-learned strategies which operate almost automatically, they may find it difficult to verbalise how they are going about problem-solving; this may call into doubt the use of verbal protocols described earlier in this paper. Fourth, people with a little experience are sometimes worse problem-solvers than complete novices, because they have learned some of the schemata that experts have, but use them too rigidly and indiscriminately.

Fifth, experts solve problems in their area more quickly than novices. In spite of the greater amount of knowledge they have available to access, the cognitive connections between elements of knowledge are so well developed that their thought-processes work very fast. Sixth, the best kind of problem to demonstrate expertise is a difficult one of the same type as usual, i.e. not routine and not extraordinary (Klein, 1992). Because not all problems are of this kind, taking an expert approach will not invariably produce superior performance (De Groot, 1978).

Seventh, the automaticity of experts' information processing is thought by some (e.g. Sternberg & Frensch, 1992) to mean that it has been assigned to a 'local' network in the brain, leaving capacity for conscious problem-solving in other areas in parallel with the operation of the local network. Eighth, Sternberg (following Labouvie-Vief, 1982, in suggesting potential disadvantages of normally superior thinking) argues that local networks are hard to break up and relearn. Therefore, if the knowledge and skills of a particular area change rapidly, even experts (or perhaps especially experts) will have trouble adapting. If careers are changing beyond recognition, this would imply that experts might actually be at a disadvantage at present. However, it is perhaps more plausible to suggest that, whilst careers are indeed changing, the nature and extent of change throws up difficult problems of an established kind, rather than totally unfamiliar ones. This would mean that expertise is all the more valuable, not redundant.

Finally, expertise takes some years to acquire—at least 10, according to Ericsson & Crutchen (1990). In a sense, people are involved in careers, or at least observing them from a very early age (Law, 1996), but perhaps for careers the 10-year ‘qualification period’ might not begin until mid- or late-teens, when occupational issues become personally salient.

Putting all this together, we can arrive at several propositions about expert career managers. In some respects, these new propositions duplicate or complement those derived from the wisdom literature, particularly concerning the role of knowledge and problem-solving capability. However, they pay more attention than the wisdom literature to cognitive processes, and less to interpersonal skills.

- (13) Experts will have more knowledge about careers than novices.
- (14) They will solve career problems more quickly than novices, using fewer attentional resources.
- (15) They will classify career problems in terms of their underlying features (e.g. this is a conflict between the demands of work and family) rather than surface ones (e.g. this person feels bad about the amount of time they are spending at work).
- (16) The superiority of experts’ performance will be most marked in problems which are difficult but of a familiar kind.
- (17) We should not expect experts to be able to verbalise their cognitive processes in managing careers, though they should of course be able to articulate the results of those processes to the extent that these are in consciousness (cf. Nisbett & Wilson, 1977).

### *Cognition and social cognition*

Ideas from cognition and social cognition have already had some impact on the career field, sometimes directly and sometimes via more general occupational and organisational psychology. Therefore this section will produce few new propositions, but will reflect quite a lot of support for propositions already made.

One dominant topic here has been cognitive capacity as measured by intelligence tests of various kinds. Particular interest has been shown in how cognitive capacity is influenced by ageing and environmental factors. Regarding ageing, the speed and perhaps effectiveness of complex information-processing declines with age during the latter half of adulthood (e.g. Hulstsch & Dixon, 1990). Older people assimilate new information less well than when they were younger, although longitudinal studies suggest a smaller, and later, decline than do cross-sectional ones (Schaie, 1983). These phenomena relate to so-called fluid intelligence, which can be defined as context-free problem-solving and reasoning capacity (Cattell, 1971). Crystallised intelligence, equivalent to utilisable knowledge about the world, increases until quite late in life.

Some researchers argue that, when considering phenomena already familiar to them, older people process information as effectively as younger ones. It seems that older people are more selective about what they attend to and remember than



		Benefits from experience?	
		YES	NO
Within a person's basic cognitive capacity?	YES	A	B
	NO	C	D

FIG. 1. Warr's classification of cognitive tasks.

younger ones, resulting in increasing adaptivity but only within familiar environments. This suggests that older adults will in some sense be more 'advanced' thinkers than younger adults about careers within familiar domains, but that the reverse would be true in unfamiliar domains. As with expertise, the question may be whether current changes in careers are so profound that they render accumulated knowledge redundant or even misleading. Perhaps even more to the point is the distinction between using crystallised intelligence to analyse the situation, but then requiring fluid intelligence to learn new skills to maintain employability. As Hall & Mirvis (1995) have pointed out, the need these days is for continuous learning throughout working life, rather than isolated episodes of retraining.

An alternative way of analysing the distinction between fluid and crystallised intelligence is provided by Warr (1993) (see Fig. 1). He distinguishes four types of task, according to the demands made on a person's intelligence and experience. Warr hypothesises a positive correlation between age and performance for type A, no correlation for types B and C, and a negative correlation for type D. If one is prepared to assume that career management benefits from experience (the application of ideas concerning expertise makes this assumption), then the correlation between career management performance and age should be either zero or positive. This is in line with the propositions derived from the wisdom and expertise literatures.

Regarding environmental influences on cognitive functioning, Kohn and Schooler (e.g. Schooler, 1987) have conducted impressive long-term longitudinal studies with very large samples demonstrating that intellectual functioning is affected by the opportunity for self-direction in work. In particular, flexibility (indicated by ability to generate relevant ideas about a problem), and the absence of conformity and of authoritarianism, are consequences of work in which a person has considerable discretion concerning the timing and nature of the tasks. It can, therefore, be suggested that past experience of opportunity for self-direction in work should enhance the quality of a person's thinking about careers. It might also be the case that being accustomed to organising one's own work generalises to a willingness to manage one's own career.

Vygotsky (1978) has proposed and developed the concept of the *zone of proximal development*. This represents a level of development, and/or set of capabilities, just beyond what a person currently exhibits, but which can be fairly quickly attained given an appropriate challenge from his or her environment. Development,



therefore, occurs through challenging a person to go beyond his or her existing performance. This alerts us to the possibility that, whilst long-term personal or environmental influences may set limits on a person's thinking capacity and style, in the short-term it may be possible to present challenges which elicit the best thinking the person is capable of at the time. Moreover, this best thinking may be significantly better than the person's normal daily functioning.

Other work in cognition and social cognition has been performed within the career field. Some of this uses Kelly's (1955) personal construct theory or derivatives of it. For example, Neimeyer (1988, 1989) views vocational development in terms of the personal construct system a person uses to think about careers. Two key structural features of the construct system are differentiation (the number of different dimensions of judgement used by the person) and integration (the extent to which the dimensions are organised into an interrelated system). Integration and (especially) differentiation as assessed with a repertory grid have been used by Neimeyer and others as one characteristic of advanced thinking about careers. However, the usual grid for assessment of differentiation (Bodden, 1970) concerns construing of occupations. It might be possible to extend this to investigate the differentiation with which a person construes various career problems or dilemmas. It might also be possible to develop simple questionnaire measures of some aspects of superior thinking about careers, such as the recognition that there is no single ideal career (see proposition 1).

Social cognition (see e.g. Bandura, 1986) is currently dominant within many areas of applied psychology, and has in recent years been explicitly applied to careers. Briefly, this line of thinking sees a person as a regulator of his or her own behaviour, with that self-regulation being governed by various thought-processes including some concerned with perceptions of self and others. A key concept is self-efficacy, which is defined as 'people's judgements of their capabilities to organize and execute courses of action required to attain designated types of performances' (Bandura, 1986, p. 391). Research has shown that self-efficacy influences willingness to take on tasks, and performance levels if and when they are taken on. Other key concepts are outcome expectations (what a person thinks will be the results of successfully performing a certain behaviour or task) and personal goals (the nature and level of difficulty of the targets a person sets for his or her behaviour). Lent *et al.* (1994) and Lent & Brown (1996) have analysed in depth the applications of these and other social cognitive concepts to the formation of vocational interests and the making of vocational decisions. From a career-management perspective, this approach highlights ideas in common with the expectancy theory of motivation, and indeed with what some might regard as common sense. People are likely to think and behave in ways which help them manage their own career to the extent that they (1) believe they are capable of doing so, (2) believe it will produce positive outcomes for them, and (3) set themselves explicit personal goals to do so.

The material in this section suggests just two more propositions concerning the characteristics of effective career-management thinkers:

- (18) They will be characterised by differentiated and integrated construing

concerning careers. That is, they will use a wide repertoire of concepts in dealing with career issues, and relate those concepts to one another rather than thinking about each in isolation.

- (19) They will believe themselves capable of managing their own career and that it is worth doing.

### **Observations concerning the propositions and implications for theory and practice**

Several themes recur throughout the above analysis. The needs to be able to adopt many different perspectives, to deal with contradiction, to accumulate diverse experience, to distinguish between knowing about and knowing how to do something, to tolerate uncertainty, and to process information heuristically, all crop up more than once. Not surprisingly, then, there is some overlap between the propositions derived from the different but related areas of literature. For example, propositions 4 and 12, and 11 and 15, cover similar ground. So probably the 19 could be whittled down a little in number. The significance of the propositions is that they are put forward as the key characteristics of effective thinking, and are largely derived from psychological theory outside the career domain. This latter characteristic is seen as essential by some (e.g. Richardson, 1993) who believe that career theory and practice have failed to capitalise upon wider developments in the social sciences.

It would be almost impossible to come up with aspects of thinking which are entirely novel to career theory and practice. Much, perhaps most, of the above analysis suggests characteristics of effective career thinking that will probably be familiar to many counsellors, particularly those who use social cognitive ideas. Some (e.g. propositions 7 and 13) can hardly be described as controversial. Yet the analysis presented in this paper does suggest some new, or perhaps unusual, emphases and perspectives for career theory, guidance and counselling. These will now be discussed.

Propositions 1 and 2 follow Super, Holland and others in recognising that any individual can adapt to at least several occupations. Yet the notion of effective thinking about careers is quite different from progression through stages of career development or accurate self-assessment. Super's career stages, more recently called career concerns, focus on the content of a person's thinking more than on process. A person can apply effective thought-processes to any or all career stages/concerns. The wisdom and expertise literatures suggest that he or she is more likely to be able to do this with greater experience, but that even so, the later stages of careers and lives are not in themselves better or more complex than earlier ones (cf. Levinson *et al.*, 1978). A well-reasoned analysis of the match between self and occupation can (indeed, should) arise from advanced thinking, but again the thinking is separate from the outcome. The parallels are closer with some analyses of decision-making (see, for example, Janis & Mann, 1982). Effective career thinkers should tend to adopt what Janis & Mann call a vigilant style of decision-making, where new information is sought but not allowed to carry more than its due weight, and where

the person considers whether it is the right time to make a decision as well as what that decision should be. Thus effective thinkers should avoid rushing to a premature decision, and should also avoid decisional paralysis (Dinklage, 1968) induced by an inability to weigh up the personal significance of various pieces of information. The propositions described here focus more on making decisions wisely than on making wise decisions, but explicitly assert that the latter is a consequence of the former.

It is tempting to view counselling as facilitating a person's problem-solving in his or her own terms, without paying sufficient attention to whether the problem-solving would be better if the person was thinking better. So the propositions in this paper imply that counsellors should be alert to, for example, signs that a client is able to acknowledge the 'relative indeterminacy of life', or to integrate competing self-perceptions. Moreover, if we take seriously the notion of the zone of proximal development, counsellors can present challenges (e.g. new perspectives) to a client not only because this might help with current problem-solving, but also because it might bridge a gap between a person's typical level of functioning and their current maximum capability. Short episodes of counselling are unlikely to extend a person's thinking capacity *per se*. Such interventions may, however, start a person on a developmental track which leads to improved career thinking in the longer term. The same is true of other discrete events such as the more developmental forms of performance appraisal (Mayo, 1991).

Counsellors frequently acknowledge the importance of making decisions effectively as well as making effective decisions. Indeed, as already noted, it can be argued that on occasions it is wise to be undecided about one's career because to be decided would mean a premature judgement or insufficient acknowledgement of difficulties in implementing a decision (Krumboltz, 1992). But the line of reasoning advocated here takes this a stage further. The person's thought-processes themselves (as opposed to outcomes) are centre-stage: the main focus of attention. The role of the counsellor is to activate the client's use of them and to encourage their future use. Moreover, the counsellor him- or herself needs habitually to think in these 'advanced' ways, since client learning during any career intervention is dynamic and interactive, and therefore depends partly upon the deliverer of the intervention (French & French, 1994). Counsellors have perhaps always been encouraged, or even trained, to adopt multiple perspectives, recognise dissonance between thoughts and emotions, and develop and use heuristics for classifying career problems. Here the emphasis is very much on encouraging the client to do the same. This might mean a rather more controlling and pedagogic orientation than some counsellors are accustomed to using.

Again, if we take seriously the research and theory presented here, we must recognise that progression towards effective thinking may carry some costs, and that counsellors cannot ignore these in their dealings with clients. In particular, there is what has been called the post-formal pathology, where a person is able to appreciate multiple points-of-view but is unable to find any criteria for deciding which are the most valuable from his or her own point-of-view. The emphasis on dialogue with self suggests more routine use of the 'two chairs' technique in counselling, where the

client is encouraged to enter into a debate by alternating roles between two imaginary persons with competing points-of-view.

The propositions in this paper also have consequences for careers education. They imply a significant time investment and a very clear focus on students' knowledge and thinking skills. The emphasis on knowledge in the wisdom and expertise literatures suggests that broad-based information might perhaps come first of all in careers education programmes. This could include the kinds of careers people experience, current labour market and organisational trends, and different value orientations people bring to their careers. This would be a broad knowledge, perhaps informed by case studies, including individuals known personally to the students. The purpose would be to enable students to appreciate the contexts in which careers occur. Careers education might place greater emphasis on values relative to skills, abilities and interests in self-assessment, since values are a key frame of reference for individuals in weighing up not only what they wish to do, but what they want to get out of it and how it can be fitted with other aspects of their lives. There should be an emphasis on the changeability of self, with the consequent need to re-assess one's personal characteristics in the light of experience.

Careers education might also include exercises designed to uncover what might seem to an observer to be logical inconsistency (e.g. valuing autonomy but preferring to work in teams). These are, of course, not necessarily incompatible, and individuals may well achieve greater self-understanding by being able to articulate why not. Similar considerations apply to possible discrepancies between what a person thinks (e.g. I have good teamworking skills) and what he or she feels (e.g. I dread having to explain myself to colleagues). Students should be encouraged to establish the personal relevance of a wide range of career-related constructs, and to consider the extent to which those constructs (e.g. high-status job, and job with a lot of travel) tend to go together, and any circumstances in which they might not. Perhaps most important of all, careers education should include exercises such as information-gathering and problem-analysis, success in which can enhance students' belief in their ability to manage their own careers. The resulting sense of self-efficacy should have a significant impact on motivation and ability to cope with career-related tasks, and to handle the ambiguity inherent in realising that no single area of work is likely to provide a perfect fit with self.

The propositions about advanced (or wise, or expert) career thinking are derived from theory more than from empirical research. It might be argued that they are of the 'take it or leave it' variety—the reader may or may not agree that the thought-processes described can justly be called advanced. Therefore in one sense these thought-processes are held to be good in themselves, which begs questions about the integrity and cross-cultural generalisability of the values underlying that judgement. This issue applies particularly to the work on post-formal thought, which makes some conspicuously post-modern assumptions about the relativistic nature of truth. Who is to say that there are no absolute truths, worth adhering to oneself and advocating to others? As Law (1996) points out, some information is indeed factual, or at least widely agreed within or between cultures. In order to initiate a successful course of action, a person must link his or her personal constructs to those held by

other individuals, and those expressed in systems such as careers information libraries. Thus although Law's career-learning theory shares with post-formal theories a concern with how individuals deal with other points of view and develop their own, Law focuses more on how a person develops explanations which lead to actions in a world of opportunities and constraints.

Advanced, wise and expert thought-processes do not in themselves *guarantee* outcomes such as rate of promotion, income, career decidedness, career maturity and career satisfaction which are often used in evaluating careers interventions. But in spite of (or because of) an increasingly unpredictable world of work, we might expect the thought-processes identified in this paper to increase the likelihood of people achieving career outcomes that they value. In other words, and in contrast to the previous paragraph, we could take a more empirical stance, and suggest that what counts as advanced thinking about careers can best be established in the light of the outcomes it produces. As an aside, it might also be argued that outcomes should be measured idiographically rather than nomothetically. That is, a person's career satisfaction (or whatever) should be assessed relative to what it once was (or even relative to what it might have been had the same person used different thought-processes) rather than relative to other people. A similar conclusion has been drawn by researchers evaluating the expectancy theory of motivation (Schwab *et al.*, 1979).

Finally, even if one accepts the validity of notions of advanced thinking, wisdom and expertise, there are at least three obvious weaknesses in the approach as it stands. The first is that there is plenty of speculation but, with the exception of Kohn and Schooler's work on occupational self-direction, little convincing evidence concerning which life experiences foster or stifle these forms of thinking. The second is that the relation between age and the acquisition and execution of these thought-processes is very ambiguous. The third is that the existing methods of assessing people's thought-processes are extremely lengthy and involved—well beyond what any practising counsellor, and indeed many researchers, would have time to learn or use. If the analysis presented here does indeed reflect some helpful conceptual developments, there is much scope, and much need, to develop simpler assessment tools.

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