

## DECISION MAKING IN VOLUNTARY CAREER CHANGE

Decision making in Voluntary Career Change: An Other-than-Rational Perspective

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### Abstract

A qualitative study of voluntary career change highlighted the importance of positive emotions, unplanned action, and the construction of certainty and continuity in the realization of change. Interpretative Phenomenological Analysis was used to broaden theoretical understanding of real-life career decision making. The accounts of eight women who had changed careers were explored and the analysis supported other-than-rational perspectives of career decision making. An action-affect-cognition framework of decision making is proposed. The framework adds the role of emotion and the importance of self-regulation to existing theory of career decision making. Implications for career counseling are discussed.

## DECISION MAKING IN VOLUNTARY CAREER CHANGE: AN OTHER-THAN-RATIONAL PERSPECTIVE

Models of rational decision making have been strongly influential from the earliest career literature, based on Parsons' (1909, p. 5) prescription of "true reasoning" from knowledge of self and of occupations. The models of theorists such as Gelatt (1962), Gati (1986), and Peterson, Sampson, Reardon and Lenz (1996) see career decision making as a logical, systematic and objective process. In contrast, alternative theoretical perspectives on career decision making have emphasized uncertainty (Gelatt, 1989), happenstance (Bright, Pryor & Harpham, 2004; Mitchell, Levin & Krumboltz, 1999) and contexts (Amundson, 1995). Such approaches, termed by Phillips (1997) as "other-than-rational", offer the powerful argument that people do not apply strictly rational procedures in making career decisions. Other-than-rational perspectives have contributed valuable insights and a broader view, but their empirical base is sparse. With the exception of Amundson's (1995) interactive model, alternative approaches have not proposed a model of the career decision making process, and the interactive model is limited in the psychological processes it considers. There is a need therefore for further empirical investigation of the detailed processes involved in real-life decision making. The study reported here aims to address this gap by exploring experiences of decision making in voluntary career change, and by proposing an other-than-rational framework for career decision making. Rather than impose prior assumptions on the process, we chose a methodology, Interpretative Phenomenological Analysis (IPA; Smith & Osborn, 2003) that gives voice to the participants' experience, answering Phillips' (1997) call to investigate decision making from the perspective and experience of the person making the decisions.

## Rational Models of Career Decision Making

Rational models of career decision making have emerged from expected utility (EU) models. Such models propose that individuals identify an optimal outcome by multiplying the probability and perceived value of different options, and selecting the option that yields the highest product. Extending the EU model to career decision making, Gelatt (1962) proposed a model of career decision making that was systematic, sequential and “scientific.” Katz (1966) and Pitz and Harren (1980) proposed a more rigorous EU approach for career decision making, with exhaustive search to ensure all alternatives were considered. Such models have been considered normative, that is, stating how decisions should be made (Gati & Asher, 2001).

However, problems were identified in the application of normative models to everyday decision making. Kahneman and colleagues demonstrated a range of ways in which people failed to follow the process prescribed by EU models, for example, by failing to consider all options or by incorrectly assessing the probabilities of events (Kahneman, Slovic & Tversky, 1982). Gati (1986) argued that, in career decision making, the requirement to quantify probability and valence, and then to calculate their product, for a potentially very large range of alternative careers, surpassed the cognitive capacity of individuals. Recognizing the bounded rationality of human cognition and the tendency to select *satisficing*, or “good enough”, rather than optimizing choices (Janis & Mann, 1977; Simon, 1955), Gati (1986) proposed the sequential elimination model. The sequential elimination model, later extended and elaborated in the prescreening – in-depth exploration – choice (PIC) model (Gati & Asher, 2001), specified a strategy of early elimination of options that did not match aspects of the desired outcome. Gati’s models were aimed at overcoming the requirements for exhaustive calculation and forced quantification of the EU models, and were proposed as prescriptive, that is, suggesting how decision making can be improved (Gati, 1986; Gati & Asher, 2001). The cognitive information processing (CIP) model

too proposed how career decision making could be carried out more effectively, by enhancement of cognitive processes (Gati & Asher, 2001; Peterson et al., 1996). Nonetheless, these models continued to incorporate many of the assumptions of normative models, including an emphasis on objective rationality and a requirement for systematic exploration of multiple options (Gati, 1986; Gelatt, 1962; Janis & Mann, 1977).

Rational models of career decision making have been positioned as the right way, and perhaps the only way, of making career decisions (Phillips, 1994). But this has been challenged by a number of scholars who have argued that the complex, subjective and creative processes of decision making have been reduced to a small set of numbers (Carson & Mowseian, 1990) and context, meaning, emotion and change in the experience of career decision making have been ignored (Hartung & Blustein, 2002; Kidd, 1998; Phillips, 1997; Phillips & Jome, 2005).

#### Other-than-rational Perspectives on Career Decision Making

Changing radically from his earlier rational position, Gelatt (1989) suggested career decision making can be viewed as a non-sequential, non-systematic process of arranging and rearranging information into a course of action. Krieshok (1998) too argued that systematic decision making was not possible in careers. In contrast to the assumption of rational models that people could access salient aspects of self-knowledge on which to base their decision, Krieshok argued that this information is not necessarily available to individuals and decision making can be partially unconscious. Mitchell et al. (1999) and Bright et al. (2004) argued for the importance of context in career decisions, both sets of scholars focusing on chance events. At a meta-theoretical level, McMahon and Patton (1995) proposed a systems framework that acknowledged chance, context and individual attributes as components of a dynamic and open system of career decisions. At the processual level, Amundson (1995) brought together external contexts and subjective arrangement or “framing” of information in an integrated model that described an

iterative and changing process. Other-than-rational approaches to career decision making link to advances in general decision making theory in psychology: The characterization of the career decision making process as non-sequential, iterative and often creative echoes the argument of Beach and Connolly (2005, p.3) that decision making “feels its way along”.

Alternative approaches have greatly enhanced understanding of what Nicholson and West (1989) termed the “planless” nature of career decision making but understanding is still narrow (Pope, 2003). The interactive model limits its consideration of psychological processes to framing a decision, and, in common with most perspectives on career decision making to date, affect and emotion are not addressed as central (Kidd, 1998). Although rational approaches to decision making have acknowledged that unconscious processes including emotion and intuition can be influential (e.g. Gati & Asher, 2001; Peterson et al., 1996), such influences are positioned as distorting the ideal, systematic process (Kidd, 1998; Kahneman et al., 1982). Kidd’s (1998) argument for career decision making as a joint operation of emotional and cognitive processes is supported by recent developments in the wider psychological literature. Johnson-Laird and Oatley (2004) posited emotional processes as essential co-processes of cognition, facilitating complex decision making by reflecting partially unconscious evaluation processes. Frijda, Manstead and Bem (2000) explored how feelings influence thoughts and proposed that emotions are essential as triggers to action.

Other-than-rational perspectives on career decision making then are as yet incomplete and questions remain. What processes other than framing are part of decision making? What roles do emotions play? The current study aims to add to the empirical base and enrich theoretical perspectives by investigating the lived experience of people making career decisions. Our research question was “How have people, who have changed career voluntarily, experienced career decision making?” Extending Feldman’s (2002) definition to include the field of expertise,

we defined career change as a transformation that requires significant changes in roles, responsibilities, skills and field of expertise or body of knowledge. The data presented here are part of a larger study, in which the influence of negative emotions and of the self-concept on the initial stages of voluntary career change has also been explored.

### Method

IPA is an established, ideographic, phenomenological methodology (Lyons & Coyle, 2007; Smith, 1996; Millward, 2006), increasingly used in European psychology. We chose IPA over other qualitative methods because of our focus on the phenomenology of decision making and our aim to enrich existing theory, rather than generate new theory. Typically based on individual, semi-structured interviews with a small set of participants, IPA aims to give an account of participants' experiences through a systematic and rigorous analysis (Smith, Jarman, & Osborn, 1999). The resulting account represents a double hermeneutic: firstly, at a descriptive level of the participants' own sense-making of their experience, and secondly, at a critical analytic level across the participants' accounts (Smith & Osborn, 2003). The methodology does not test hypotheses: Its objective is to understand the participants' lived experience without imposing the constraints of prior theory (Storey, 2007). At the critical analytical level, links to existing theory may be explored, to provide greater insight on the data or to critique or extend current theory (Storey, 2007), as we seek to do here. As with all methodologies, there are limitations to IPA. Practical considerations, including time, limit the number of participants that can be involved. The results emerge from the unique interaction between researcher and data, and as such, will not be identically replicable. However, IPA can offer insights that quantitative methods cannot (Reid, Flowers, & Larkin, 2005; Flowers, 2008). IPA explores experiences in context, as can quantitative methods, but whereas quantitative studies tend to measure limited aspects of experience as determined by previous theory, IPA allows the description of the full

experience in all its richness and complexity. Systematic analysis of these data can provide novel insights and a broader, more integrated perspective. IPA centers on the participants' sense-making of their personal experience, providing a subjective view in contrast to the more objective standpoint of quantitative research. More generally, IPA provides an investigatory perspective that can complement other approaches and, as such, is an appropriate methodology to meet the aims of enriching existing theory.

### *Participants*

Participants who had changed career in the previous three years were purposively selected and 8 participants, living in the south-east of England and recruited through social networks, agreed to participate. We chose women only following the methodological recommendations for homogeneity of sample (Smith & Osborn, 2003), and as a relatively less-studied group in vocational psychology (Marshall, 1989; Pringle & Mallon, 2003). The participants were aged between 29 and 48. Seven were university-educated; one was educated to secondary level. One participant described herself as Black Caribbean; the remainder described themselves as White British. Five of the participants had dependent children. Seven participants were married or in long-term relationships. One participant lived in public housing and the remainder were owner-occupiers. The public-housed participant was secondary-educated and described herself as White. The names of all participants have been changed to protect confidentiality. Table 1 summarizes their career changes.

### *Procedure*

Participants were interviewed by the first author on 2 separate occasions for approximately 1 hour. The second interview took place around one week after the first. The topics for the semi-structured interviews were, in interview 1, career history, precursors of and feelings around the change, and in interview 2, information about the new occupation, and

feelings and experience in the new occupation. The interview schedules were constructed from open questions intended to allow rich and detailed accounts of the full process of decision making. Examples of questions were: “Can you tell me about the jobs you have had, starting with your first paid job?” “Thinking about that last change, can you tell me what led up to that?” “How did you feel at the time?” “Now that you have changed, how do you find the new occupation?” The data from the first interview were not analyzed before the second.

### *Analysis*

Audio recordings of the interviews were transcribed verbatim. In the first step of analysis, the two transcripts for each participant were read in depth. We checked for contradictions but found no substantial discrepancies. Analysis proceeded in compliance with established guidelines (Smith & Osborn, 2003; Willig, 2001). The transcripts of one participant were read in detail several times and the software NVivo 2.0 was used to annotate the text with comments and to identify initial themes. Themes are points of interest or salience within the account or in the researcher’s interpretation, entitled briefly and linked to a phrase or longer tract in the text. On completion of this phase, the scripts were re-analyzed to ensure that the themes fully and faithfully represented the participant’s account. This process was followed on three more scripts, generating an extensive list of themes. Related themes were grouped into master themes. The remaining scripts were then analyzed looking for support for the master themes, while checking for any salient themes not yet identified. Some new themes were found, checked back to the initial set of scripts and, if supported, were added to the master list. Finally, the master list was reviewed and minor themes (i.e. not in evidence for most participants and not highly salient for any one participant) were removed. A narrative account was constructed, with constant checking back to the data, to ensure that the master themes represented the participants’ experience. This detailed analysis remained grounded in the data by including extensive excerpts and was

reviewed by the second and third authors, to validate that the interpretation was justified from the data and that the analysis represented the participants' stories. A shortened account was sent to the participants and feedback was positive.

Criteria for evaluating qualitative and quantitative research are different (Smith, 2003). We applied the criteria for validity of qualitative studies proposed by Yardley (2000): sensitivity to context, rigor, commitment, and contribution. We strived to be sensitive to context by remaining grounded in the data at every stage of analysis. We strived for rigor and commitment by establishing epistemological appropriateness, by following recommended systematic method and by thoroughness of analysis. We strived to establish the contributions of our study by focusing on findings that add to the previous literature and their application in career counseling.

### Results

Of the rich set of themes that emerged in analysis, two superordinate themes related to the overall process of career change decision making: planless actions and positive emotions, and constructing the decision.

#### *Planless Actions and Positive Emotions*

The accounts described how the actions of the participants influenced their career change, as would be expected in a typical narrative format (Gergen, 2001). However, contrary to expectation, most participants described actions that later directly influenced their career change as initially unrelated to career. Two participants (Fran, Gayle) described having a new occupation in mind at first, but modifying this subsequently. In only one case (Joan) did the participant describe intentionally looking for and evaluating alternatives. The other 7 accounts did not describe any form of systematic process of decision making that rational models would suggest.

Brenda was clear that she did not initially intend Amatsu therapy to become her new career:

I thought, well, that will give me something else to study (...) Again, not really to change my career at all, then. Though I knew I might have to, I didn't think I'd change it to that. I just thought I'd study it.

Anne also stressed the planless nature of her decision to do a secondary-level qualification: "I certainly didn't do the [qualification] thinking I was going to go to university afterwards. I was doing the [qualification] to do something to get over the disappointment of [not being successful in a job application]." The non-intentional nature of that decision was underlined by her choice of subject, that "was just the sort of passion of the moment really." There was a sense in many of the stories of trying something, especially study, because it would open up opportunities and could suggest a direction. Nicholson and West (1989) noted that career paths can be both planless and planned, and the initial planlessness in the accounts here evolved into identification and subsequent pursuit of the desired new occupation. This links to arguments for the salience of happenstance and chance in career (Bright et al., 2004; Miller, 1983).

Having explicitly positioned their initial actions as not planned in relation to their career path (5 participants), how then did the participants make sense of the path they had taken? All of the participants described finding that they were skilled and capable in the new field and drew on the positive emotions related to the new career. Brenda described herself as "absolutely passionate" about her new field, and 4 other participants also spoke of their passion for their new career areas. The others spoke of satisfaction and enjoyment. The typically strong, positive emotions were described as beginning in the early days of trying out, or training for, the new career, suggesting that satisfaction and enjoyment had been part of the experience and were part of sense-making around the decision. The strength of positive emotion from their early experiences appeared to contribute to the subsequent selection of the career path and this held for

the three participants who described some initial intention as well as the remainder who had no specific career-related plans.

All of the participants “knew by trying” (Gayle) that the new area was what they wanted. Joan said “I can see myself doing this” and Helen felt her experience meant that she “got exposed to a different way of living, a different way of being.” Trying out the new career seemed to show them a *possible self* (Markus & Nurius, 1986) that they could achieve. Action, initially planless but leading to experience in the new career, thus appeared to generate strong positive emotions, enhanced self-efficacy, greater skills and a possible self, and these benefits were salient in the way that participants made sense of their career decisions.

### *Constructing the Decision*

The accounts described a protracted process, with career changes having taken between 3 months and 7 years to realize. The participants all described being happy with their choice of career and feeling it was right for them. However, how did they find the “right” career without evaluating alternatives? The interpretation of the accounts suggested that the participants used several strategies to build up and reinforce their decision over time.

*Building certainty.* All 8 participants spoke of how they had made the “right” decision. Some positioned the decision as a natural, obvious, almost inevitable choice. Most said that they had “never doubted that I was doing the right thing” (Gayle). This was particularly salient for the participants who had not yet established themselves in their new career. Diane, for example, said:

(...) just knowing in my heart that it was the right thing to do, no matter what happened  
(...) Even if I couldn't get a job at the end of it, I just knew that it was the right thing to do.

Diane's certainty here seemed to be part of constructing her decision as a good decision. She was allowing for possible failure but building a story that, even in the case of failure, the decision was

still the right one. This construction of certainty was a salient aspect of all of the career stories. It may have helped the participants to minimize doubts and anxiety, to “save face” if things went wrong, but it also appeared to work to reinforce the decision.

The period preceding a decision to change career was characterized by negative emotion for most participants. In contrast, having chosen a new career option was associated in the data with relief and more positive affect. Having made a decision, to feel certain that it is the right one helps to move the individual forward towards action and away from the discomfort of decision making (Janis & Mann, 1977). So telling oneself that one has made the right decision may be an important way of regulating potentially undermining doubt and emotions such as fear.

*Perceiving continuity.* All of the participants talked about the similarities between their new career and their old. Most saw continuity in retrospect, even if they had not realized it before their move. Helen said “it’s almost come full circle” and Gayle felt her new career allowed her to go back to being “the old Gayle again”, returning to an earlier self-concept. Even where the participants described how different the new career was, they also constructed continuity between the two. The construction of continuity in all the accounts appeared salient in sense-making. Positioning the change as gradual and bridging the differences between the two careers may have made the decision seem less dramatic, less risky and more achievable.

*Temporal framing.* The participants appeared to take a life-span perspective on their careers, looking back to where they had started or looking forward in time to where they may end up. Their decision to change career then became, for example, a necessary step to avoid an unwanted future. Helen said:

If you don’t do it [change career], you’re just going to carry on for the next 40 years and change into one of these really boring people (...) at work (...) and I thought I just don’t want to be one of those people.

It can be suggested that Helen was anticipating the regret that she would experience if she ended up becoming “one of these ... people”, and her decision was influenced by this anticipation of future emotion (Zeelenberg, 1999). Helen also appeared to be avoiding an undesired possible self (Markus & Nurius, 1986). Other participants saw their change as a step toward a desired future. For example, Diane saw a better work-life balance tying in with possible future family demands. Framing a decision has been proposed as critical (Lipschitz, 1993; Amundson, 1995) and here, framing within the overall life-span helped participants to make sense of their decision.

In sum, the participants described career change extending over time. A number of psychological processes, constructing certainty and continuity, and framing the decision within an extended time perspective, appeared to facilitate successful decision making and to enable change happen.

### Discussion

Eight women who had changed career within the previous three years described their experience of career change in two semi-structured interviews. Interpretative Phenomenological Analysis (IPA) suggested two themes relating to decision making: planless actions and positive emotions, and constructing the decision. In their actions that led to change, five participants appeared to be planless initially, taking steps that they did not intend to use to change careers but that were later seen as pivotal. In particular, positive emotions experienced in the course of these exploratory moves appeared to signal the way forward, and this appeared equally true of the exploratory actions of the three participants who began with an outcome or process in mind. In making real their decision, all participants drew on several strategies that served to bolster their decision, including constructing certainty and continuity, and temporal framing. These strategies appeared to facilitate self-regulation as the individuals moved towards a new career.

A particularly salient finding from this study was the minimal extent to which the participants followed a systematic approach to decision making. The rational assumptions of a large choice of options and known criteria for comparison (Gati & Asher, 2001) did not hold in these accounts of subjectively successful career changes. The analysis here supported other-than-rational perspectives on career decision making. Of particular salience in the narratives of career change were the emotions experienced. The often strong, positive emotions experienced in early engagement with the new career appeared to focus the participants towards their choice and to facilitate the management of fluctuating emotions

Based on these findings, an action-affect-cognition (AAC) framework of decision making in career change is proposed that builds on Amundson's (1995) interactive model. The salient features of this framework are illustrated in Figure 1. Drawing also on the systems framework of McMahon and Patton (1995), the AAC framework assumes that many factors may contribute to the determining contexts of career decisions, including individual factors such as the self-concept, and environmental factors such as the economy. As in the interactive model, determining contexts and actions are mutually influencing. A first difference from Amundson's model is the proposal that actions may be executed without conceptualization of a career-related problem. Defining contexts may influence action directly: In the data above, Anne undertook further study to recover from being disappointed in a job application. The framework recognizes such non-career-directed actions as planless behavior, and further that action may not have conscious precedents (Krieshok, 1998). The interactive model suggests that actions may shape subsequent cognitions. The AAC framework extends this reciprocal relationship to include affect: Actions may influence and be influenced by emotions as well as cognitions, and cognitions and emotions are likewise mutually influencing. A parallel cycle of action-affect-cognition is proposed for planned action. Although these two cycles are depicted separately, they may not be

distinct. An individual may move between one cycle and the other: A planless cycle may become planned. Brenda, for example, initially studied Amatsu therapy for interest and later realized it was a viable career option which she pursued. Equally, planned actions may not achieve the desired result and an individual can revert to planless action. The action-affect-cognition cycles contribute to, and are affected by, processes of self-regulation. Self-regulation, the management of emotion, cognition and behavior in pursuit of a goal (Carver, 2004; Higgins & Spiegel, 2004), is likely to benefit directly from positive emotions resulting from action. Negative emotions resulting from action may require management by self-regulation processes. Cognitive outcomes too may impact self-regulation. The findings above showed how building certainty and continuity, and temporal framing, helped to strengthen a decision and thus regulate cognition and emotion. Identifying a new possible self as a cognitive outcome of action may also aid self-regulation, by providing a motivational goal (Ibarra, 2004).

The action-affect-cognition framework integrates a number of existing perspectives on decision making. Beach and Connolly (2005) noted that the concept of a decision as happening at one point in time is merely “a useful fiction” and the AAC framework instantiates their notion of decision making feeling its way along. The centrality of action (Ibarra, 2004; Young & Valach, 2000) is recognized, as are the influence of context and the unpredictability of the outcome (Amundson, 1995; Bright et al., 2004; Gelatt, 1989; Mitchell et al., 1999; McMahon & Patton, 1995).

Emotion is intrinsic to the process and theoretical perspectives on emotion suggest a number of ways in which affect may influence cognition and action. Emotions function as a source of information (Clore & Storbeck, 2006), so positive emotions may suggest a career path to follow. Positive affect can facilitate action by stimulating exploration (Fredrickson, 1998; Isen, 2001), so actions which open up career opportunities become more likely. Further, positive

emotions can enhance cognition by facilitating flexible thinking (Isen, 2001) so new career options and opportunities may be more readily recognized. Positive emotions can aid emotional self-regulation by alleviating the negative emotions associated with facing a major decision (Janis & Mann, 1977) and by enhancing positive self-evaluation and perceived resources (Taylor & Brown, 1988). Emotions may not only guide action but may be essential triggers for motivated behavior (Frijda et al., 2000). Although appraisal theories of emotion suggest that affect and cognition are often closely aligned (see Scherer, Schorr, & Johnstone, 2001), when the two diverge, emotion often overpowers reason (Loewenstein, Weber, Hsee, & Welch, 2001). Overall, the AAC framework integrates a range of other-than-rational perspectives with recent theoretical progress on emotion, and shows how positive emotions in particular may influence the process of career decision making<sup>1</sup>. In addition to clarifying the role of emotion, the AAC framework adds to previous models by positing self-regulation as a critical process of decision making.

This framework suggests a number of testable propositions. Due to space limitations, we highlight three. First, the AAC framework emphasizes the idea that affect contributes to career change over and above cold cognition. We propose that positive affect experienced during the exploration of a new career option predicts successful career change controlling for rational evaluations of that career. Second, our framework emphasizes the importance of self-regulation processes in career decision making, including construction of certainty and continuity, and temporal framing. We propose that the use of these self-regulation strategies predicts successful career change. These propositions could be tested in a longitudinal study of people thinking of changing career. Finally, the AAC framework emphasizes the benefits of an other-than-rational approach to career decision making. This could be tested by comparison of successful career change outcomes in an intervention study that randomly assigns career counseling clients to either an other-than-rational or a traditional rational decision making approach

All studies have limitations. Because we interviewed women only, future research should examine whether men's accounts of voluntary career change reveal similar themes. IPA allows generalisability at a theoretical level (Willig, 2001) but the methodology does not claim representativeness: Quantitative methods are necessary if statistical generalisability is sought.

Despite these limitations, our findings have several implications for practice. Firstly, we suggest that both alternative and systematic approaches to decision making be explored with clients, and the benefits and drawbacks of each discussed. Secondly, the client's career-related emotions should be considered as a resource to explore. The client may be helped to recognize the informational value of feelings and encouraged to reflect on "gut feelings." Such intuitions may point to preferred career options, and positive emotions can strengthen commitment and motivate action. The counselor can facilitate these benefits by focusing awareness on positive emotions such as interest, enjoyment and passion. Thirdly, the counselor should be aware, and raise awareness by the client, of the importance of self-regulation to achieve career change. Discussion of the need for, and processes of, self-regulation may in itself enhance self-regulation. Finally and critically, to aid the client's decision making, the active, iterative and exploratory nature of decision making should be discussed. The client should be encouraged to explore actively, to recognize fluctuating emotions and to reflect on action and experience in all aspects of life as part of the decision making process.

This study of real-world career decision making highlighted the crucial role of positive emotions in providing information, self-regulation and motivating action. The extended, other-than-rational framework that is proposed above acknowledges career decision making as non-deterministic, iterative and contextual, and specifies reciprocally influencing cognitive, affective and behavioral subprocesses that jointly constitute the process of career decision making.

## References

- Amundson, N. E. (1995). An interactive model of career decision making. *Journal of Employment Counseling*, 32, 11-23.
- Beach, L. R. & Connolly, T. (2005). *The psychology of decision-making: People in organizations*. (2nd ed.) London: Sage.
- Bright, J. E. H., Pryor, R. G. L., & Harpham, L. (2004). The role of chance events in career decision making. *Journal of Vocational Behavior*, 66, 561-576.
- Carson, A. & Mowseian, R. (1990). Some remarks on Gati's theory of career decision-making models. *Journal of Counseling Psychology*, 37, 502-507.
- Carver, C. S. (2004). Self-regulation of action and affect. In R.F. Baumeister & K. D. Vohs (Eds.), *Handbook of self-regulation: research, theory and applications* (pp.13-39). New York: Guilford Press.
- Clore, G. L. & Storbeck, J. (2006). Affect as information about liking, efficacy and importance. In J.P. Forgas (Ed.), *Affect in social thinking and behaviour* (pp. 43-67). Hove, UK: Psychology Press.
- Feldman, D. C. (2002). Second careers and multiple careers. In C.L. Cooper & R. J. Burke (Eds.), *The new world of work: Challenges and opportunities* (pp. 75-94). Oxford: Blackwell Publications Ltd.
- Flowers, P. (2008). Constructing evidence: Interpretative Phenomenological Analysis and mixed method research. Paper presented at *The British Psychological Society Annual Conference Dublin*.
- Fredrickson, B. L. (1998). What good are positive emotions? *Review of General Psychology*, 3, 300-319.

- Frijda, N. H., Manstead, A. S. R., & Bem, S. (2000). *Emotions and beliefs: How feelings influence thoughts*. Cambridge, UK: Maison des Sciences de l'Homme and Cambridge University Press.
- Gati, I. (1986). Making career decisions: A sequential elimination approach. *Journal of Counseling Psychology*, 33, 408-417.
- Gati, I. & Asher, I. (2001). The PIC model for career decision-making: Prescreening, in-depth exploration and choice. In F.T.L. Leong & A. Barak (Eds.), *Contemporary models in vocational psychology: A volume in honor of Samuel Osipow* (pp. 7-54). Mahweh, NJ: Lawrence Erlbaum Associates.
- Gelatt, H. B. (1962). Decision making: A conceptual frame of reference for counseling. *Journal of Counseling Psychology*, 9, 240-245.
- Gelatt, H. B. (1989). Positive uncertainty: A new decision-making framework for counseling. *Journal of Counseling Psychology*, 36, 252-256.
- Gergen, K. (2001). Self-narration in social life. In M. Wetherell, S. Taylor, & S. J. Yates (Eds.), *Discourse theory and practice: A reader* (pp. 247-260). London: Sage.
- Hartung, P. J. & Blustein, D. L. (2002). Reason, intuition and social justice: Elaborating on Parson's career decision making model. *Journal of Counseling and Development*, 80, 41-47.
- Higgins, E. T. & Spiegel, S. (2004). Promotion and prevention strategies for self-regulation: a motivated cognitive perspective. In R.F. Baumeister & K. D. Vohs (Eds.), *Handbook of self-regulation: research, theory and applications* (pp. 171-187). New York: Guilford Press.
- Ibarra, H. (2004). *Working identity*. Boston, MA: Harvard Business School Press.

- Isen, A. M. (2001). An influence of positive affect on decision making in complex situations: Theoretical issues with practical implications. *Journal of Consumer Psychology, 11*, 75-85.
- Janis, I. L. & Mann, L. (1977). *Decision making: A psychological analysis of conflict, choice and commitment*. New York: The Free Press/Macmillan Publishing.
- Johnson-Laird, P. N. & Oatley, K. (2004). Cognitive and social construction in emotions. In M. Lewis & J. M. Haviland-Jones (Eds.), *Handbook of Emotions* (pp. 458-475). New York: Guilford Press.
- Kahneman, D., Slovic, P., & Tversky, A. (1982). *Judgment under uncertainty: Heuristics and biases*. Cambridge: Cambridge University Press.
- Katz, M. (1966). A model for guidance for career decision making. *Vocational Guidance Quarterly, 15*, 2-10.
- Kidd, J. M. (1998). Emotion: An absent presence in career theory. *Journal of Vocational Behavior, 52*, 275-288.
- Krieshok, T. S. (1998). An anti-introspectivist view of career decision making. *Career Development Quarterly, 46*, 210-229.
- Lipschitz, R. (1993). Decision making as argument-driven action. In G.A. Klein, J. Orasanu, R. Calderwood, & C. E. Zsombok (Eds.), *Decision making in action: Models and methods* (pp. 172-181). Norwood, NJ: Ablex.
- Loewenstein, G. F., Weber, E. U., Hsee, C. K., & Welch, N. (2001). Risk as feelings. *Psychological Bulletin, 127*, 267-286.
- Lyons, E. & Coyle, A. (2007). *Analysing qualitative data in psychology*. London: Sage.
- Markus, H. & Nurius, P. (1986). Possible selves. *American Psychologist, 41*, 954-969.

- Marshall, J. (1989). Re-visioning career concepts: A feminist invitation. In M.B. Arthur, D. T. Hall, & B. S. Lawrence (Eds.), *Handbook of career theory* (pp. 275-291). Cambridge: Cambridge University Press.
- McMahon, M. & Patton, W. (1995). Development of a systems theory of career development. *Australian Journal of Career Development*, 4, 15-20.
- Miller, M. J. (1983). The role of happenstance in career choice. *Vocational Guidance Quarterly*, 32, 16-20.
- Millward, L. J. (2006). The transition to motherhood in an organizational context: An interpretative phenomenological analysis. *Journal of Occupational and Organizational Psychology*, 79, 315-334.
- Mitchell, K. E., Levin, A. S., & Krumboltz, J. D. (1999). Planned happenstance: Constructing unexpected career opportunities. *Journal of Counseling and Development*, 77, 115-124.
- Nicholson, N. & West, M. A. (1989). Transitions, work histories and careers. In M.B. Arthur, D. T. Hall, & B. S. Lawrence (Eds.), *Handbook of career theory* (pp. 181-201). New York: Cambridge University Press.
- Parsons, F. (1909). *Choosing a vocation*. Boston: Houghton Mifflin.
- Peterson, G. W., Sampson, J. P., Reardon, R. C., & Lenz, J. G. (1996). A cognitive information processing approach to career problem solving and decision making. In S.D. Brown & L. Brooks (Eds.), *Career Choice and Development* (pp. 423-476). San Francisco: Jossey-Bass.
- Phillips, S. D. (1994). Choice and change - convergence from the decision-making perspective. In M.L. Savickas & R. W. Lent (Eds.), *Convergence in career development theories* (pp. 155-163). Palo Alto, CA: Consulting Psychology Press.

- Phillips, S. D. (1997). Toward an expanded definition of adaptive decision making. *Career Development Quarterly*, 45, 275-287.
- Phillips, S. D. & Jome, L. M. (2005). Vocational choices: What do we know? What do we need to know? In M.L. Savickas & W. B. Walsh (Eds.), *Handbook of Vocational Psychology: Theory, Research and Practice* (3rd ed., pp. 127-153). Mahwah, NJ: Lawrence Erlbaum Associates.
- Pitz, G. & Harren, V. A. (1980). An analysis of career decision making from the point of view of information processing and decision theory. *Journal of Vocational Behavior*, 16, 320-346.
- Pope, M. (2003). Career counseling in the 21st century: Beyond cultural encapsulation. *Career Development Quarterly*, 52, 54-60.
- Pringle, J. & Mallon, M. (2003). Challenges to the boundaryless career? *International Journal of Human Resource Management*, 14, 839-853.
- Reid, K., Flowers, P., and Larkin, M. (2005). Exploring lived experience. *The Psychologist*, 18, 20-23.
- Scherer, K. R., Schorr, A., & Johnstone, T. (Eds.). (2001). *Appraisal processes in emotion: Theory, methods, research*. New York: Oxford University Press.
- Simon, H. A. (1955). A behavioral model of rational choice. *Quarterly Journal of Economics*, 69, 99-118.
- Smith, J. A. (1996). Beyond the divide between cognition and discourse: using interpretative phenomenological analysis in health psychology. *Psychology and Health*, 11, 261-271.
- Smith, J. A. (2003). Validity and qualitative psychology. In J.A. Smith (Ed.), *Qualitative psychology: A practical guide to research methods* (pp. 232-235). London: Sage.

- Smith, J. A., Jarman, M., & Osborn, M. (1999). Doing Interpretative Phenomenological Analysis. In M. Murray & K. Chamberlain (Eds.), *Qualitative health psychology: Theories and methods* (pp. 219-239). London: Sage.
- Smith, J. A. & Osborn, M. (2003). Interpretative Phenomenological Analysis. In J.A. Smith (Ed.), *Qualitative psychology: a practical guide to research methods* (pp. 51-80). London: Sage.
- Storey, L. (2007). Doing interpretative phenomenological analysis. In E. Lyons & A. Coyle (Eds.), *Analysing qualitative data in psychology* (pp. 51-64). London: Sage.
- Taylor, S. E. & Brown, J. D. (1988). Illusion and well-being: A social psychological perspective on mental health. *Psychological Bulletin*, 103, 193-210.
- Willig, C. (2001). Interpretative phenomenology. In C. Willig (Ed.), *Introducing qualitative research in psychology: adventures in theory and method* (pp. 50-69). Maidenhead, Berkshire: Open University Press.
- Yardley, L. (2000). Dilemmas in qualitative health research. *Psychology and Health*, 15, 215-228.
- Young, R. A. & Valach, L. (2000). Reconceptualising career theory and research: an action-theoretical perspective. In A. Collin & R. A. Young (Eds.), *The future of career* (pp. 181-196). Cambridge: Cambridge University Press.
- Zeelenberg, M. (1999). Anticipated regret, expected feedback and behavioral decision making. *Journal of Behavioral Decision Making*, 12, 93-106.

## Appendix – Interview Schedules

*Note*

Questions in italics were used to encourage interviewees if answers to the first question were brief.

*Interview 1*

(Informed consent; demographic questions)

- Let's talk about your work. I would be interested to hear about the jobs you have had. Do you remember your first paid job? *What did you do next?*
- Thinking about that last change, can you tell me what led up to that? *What else was happening in your life at the time?*
- What would you say triggered it? *Was it a sudden or a gradual decision? Did it feel like a big change to you at the time? Looking back now, does it feel like a big change?*
- Can you remember how you felt at the time?
- What helped you to get through?
- Did your feelings change during this time of change?
- And looking back now, how do you feel about that change?
- How much choice do you feel you had in making your change? *Did anything influence your choice? Did anything restrict your choice?*

(Wrap up)

*Interview 2*

(Informed consent)

- Is there anything you would like to add to what we talked about in the first interview?

- In order to make this change, did you know much about the new job in advance? *Were you able to find out? How did you go about that?*
- Were there any people you found helpful in making the change?
- Did you feel you had to learn a lot to change occupations? *What sort of things did you have to learn? How did you go about it?*
- Now thinking about other people: what would you say was other people's attitude towards your wanting to change?
- How have you found your new occupation? *Did you find that your previous experiences helped at all? Is there anything you found difficult? What helped you overcome this?*

(Wrap up)

Footnote

<sup>1</sup>Negative emotions in career decision making, and their role in triggering career change and association with identity threat, are discussed in a separate paper (in preparation).

Table 1

## Participants' Previous and New Occupations

Pseudonym	Age	Previous Occupation	New Occupation
Brenda	42	Biochemist	Alternative therapy practitioner
Gayle	29	Retail manager	E-marketing consultant
Anne	45	Caterer	Academic researcher
Fran	34	Stable hand	Coach driver
Joan	39	Senior retail buyer / manager	Secondary teacher
Helen	39	Civil servant	Academic researcher
Diane	48	Geoscientist / manager	Occupational psychologist
Clare	46	Caterer –employed and own small business	Senior personal administrator (PA)

### Figure Captions

Figure 1: Action-Affect-Cognition Framework for Decision Making in Career Change

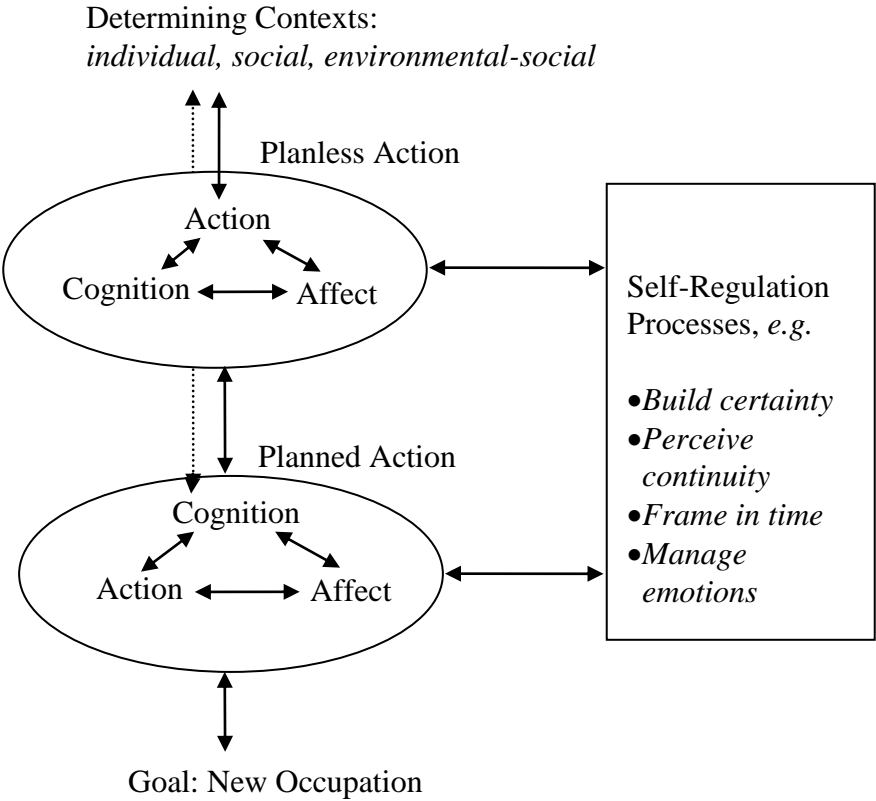


Figure 1: Action-Affect-Cognition Framework for Decision Making in Career Change