

EDUCATIONAL AND PROFESSIONAL COUNSELING

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Abstract: *Most theoretical approaches in career guidance are based on normative-prescriptive rational decision-making models we believe to be neither practical nor ethically acceptable to counselors and counsees. Counsellors have to take into account the limited cognitive abilities of counsees as well as their emotions. Therefore they will have to integrate decision-making models under "bounded rationality" into their subjective theories because only this will allow them to tune into their clients' heuristics and enable them of "cognitive empathy".*

Keywords: *heuristics, bounded rationality, decision-making, career guidance, cognitive empathy.*

Effective guidance needs a sound theoretical basis and it is impossible to overemphasize the importance of good theory: a clear conceptual framework can help us to make sense of human behaviour, sometimes to influence it and occasionally even allows us to predict it.

There can indeed be nothing more practical than a good theory, as in order to engage with the real world in an effective manner you need clearly defined conceptual tools that allow you to do so systematically. Most of the theoretical concepts guidance counsellors have been able to rely on have one thing in common i.e. they are largely based on a normativeprescriptive rational decision-making model that is increasingly alien to real-world settings and therefore fails to provide the career counsellor and the client with the conceptual tools they need in today's world.

Indeed, the majority of theoretical concepts, professional guidelines and practical instructions, require counsellors as well as counsees to proceed as rationally as possible in vocational decision-making situations. In these theoretical models that are implicitly or explicitly based on a

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normative-prescriptive approach, the decision-maker will only be able to reach the best possible decision if he or she lets him- or herself be guided by reason. In such an "ideal" decision-situation, the decision-maker not only has all the information available on all the possible alternatives as well as even on those factors that are beyond his or her control, but he or she also has the ultimate luxury of endless time and, of course, unlimited cognitive abilities. And to top it all, psychological and social factors, including motivation, are rarely and/or barely considered.

We will first outline the starting points for descriptive decision-making processes and illustrate the role of "heuristics" in career decisions. The conclusions form the basis for a debate on a new understanding of career guidance counselling, not least as regards the ethical implications of such a new approach.

Fundamental Concepts in Decision-making

In a review of the relevant literature Gary Klein (2002) lists the "ideal" conditions which are supposed to optimise the ensuing decision-making process:

1. the goals must be well defined, in quantitative terms;
2. the decision-maker's values must be stable;
3. the situation must be stable;
4. the task is restricted to the selection between options;
5. the number of alternatives generated must be exhaustive;
6. the optimal choice can be selected without disproportional time and effort;
7. the options must be thoroughly compared to each other;
8. the decision-maker must use a compensatory strategy;
9. the probability estimates must be coherent and accurate;
10. the scenarios used to predict failures must be exhaustive and realistic;
11. the evaluation of each scenario must be exhaustive.

However, as we all know, in practice vocational decisions can only be dealt with in a very limited way within such boundaries, not least because such an approach largely ignores emotional factors. A counsellor needs to take into account not only the limited cognitive abilities of the counsees, but also and above all their emotions as well as consider the context in which they have to take such far-reaching decisions as choosing a career.

And this is precisely where the descriptive approach comes into play i.e. if the normativeprescriptive approaches focus on how people should

take decisions, a descriptive approach concentrates on how people actually do take decisions in the real world.

Such a descriptive approach implies the use of so-called “simple” heuristics i.e., generalisations and “rules of thumb” which people use whenever they make decisions within a limited time-frame, with limited knowledge and limited cognitive processing abilities.

Fundamental to descriptive decision-making theories is their starting point of a “bounded rationality” i.e. contrary to normative-prescriptive decision-making theories, descriptive decision-making theories do take into account people’s cognitive as well as social limitations.

The true success of these “simple” heuristics lies firstly in the fact that they are “fast and frugal” i.e. they “employ limited time, knowledge and computation” (Gigerenzer, G. and Todd, P., 1999) and secondly in their adaptability to real world settings, i.e. their so-called “ecological rationality”.

Contrary to the rational models that largely ignore emotional considerations, decision-making under “bounded rationality” assumes an intensive interaction between cognition and emotion.

Barbara Mellers et al., (2002) differentiate between background emotions, task related emotions and anticipated emotions.

1. **background emotions** influence the perception of certain stimuli as well as the search strategies for information and alternatives themselves. For example, positive emotions such as joy and pride can restrict the search for alternatives whereas negative emotions such as fear and anger, may incite people to look for a way out/escape routes.

2. **task related emotions** in the sense of conflicts can arise when a given alternative differs insufficiently from others and does not justify choosing it. Furthermore, when faced with important decisions under time pressure, people frequently display emotionbased behaviours such as avoidance, panic or hyperactivity.

3. as regards the influence of **anticipated emotions** on decision-making the picture is not as clear-cut. In anticipation of negative emotions the decision-maker might indeed only consider a very limited number of options, and even avoid the appropriate alternative.

The avoidance of anticipated disadvantages can however not constitute the only emotional basis for decision-making. Many people will let themselves be guided by what they believe is going to procure them joy and pleasure in the short-term, and in doing so, consciously push long-term negative consequences to the back of their minds. “Simple”, emotion-

based heuristics can therefore be both adaptive and maladaptive, depending on context and consequences.

In a study of decision-making processes in vocational choice, Berndt-Michael Hellberg (2005) differentiates between three central motivational emotions:

1. a feeling of “feeling like it/not feeling like it”, of “enthusiasm/lack of enthusiasm”, of “keenness/disinclination”, of “willingness/unwillingness” that comes about when an individual imagines the “significance”/ the meaning of a given profession and its work environment with respect to his or her aspiration for ideally optimal satisfaction.

2. a feeling of inner resistance which arises from those imagined aspects that refer to possible negative consequences of the profession considered. These feelings do not however refer to the professional activity itself but rather to the motivational circumstances related to the pursuance/the carrying out of that profession.

3. and finally the “good feeling/bad feeling” emotion which refers to whether an individual can imagine himself to be able to meet the specific requirements of the profession and to cope with the demands for professional performance.

Despite the fact that there is no complete theory of “bounded rationality”, G. Gigerenzer and R. Selten (2002, p. 8) nevertheless specify three classes of processes:

1. simple search rules - rules for seeking alternatives and/or their criteria;

2. simple stopping rules - rules for deciding when to stop looking for alternatives;

3. simple decision rules - rules for choosing an alternative.

Selected Empirical Results on Heuristics in Career Decision Making

With the help of open narrative interviews Wegmann (2005) examined in a pilot study the decision-making processes underlying the career choices of five individuals, four men and one woman, aged between 29 and 42.

The results revealed that the most simple decision strategies i.e. the so-called “simple” heuristics and above all incrementalism were used most frequently. Indeed, only on one occasion did one of the interviewees tend towards optimisation, a rational decision-making strategy.

It is also interesting to note that none of the interviewees used the same heuristic all the time but three or four different ones without however there being a specific rule governing the change in strategies.

So, what tentative conclusions can we draw from this study on the implementation of "simple heuristics":

Wegmann draws the hypothetical conclusion that with advancing age people become more inclined to try harder and go for more radical breaks in their professional lives in order to realise a specific career wish. With growing experience and personal maturity career decisions then tend to be based on intrinsic rather than on extrinsic motivations.

Wegmann's study revealed that despite the fact that such key moments are fixed in time and thus both foreseeable and unavoidable, individuals were often not prepared for them.

Instead they were influenced by external factors such as family influences and their decisions were above all characterised by uncertainty.

In methodologically similar studies Trisoglio (2008) and Wresch (2008) found a tendency that at the beginning of a professional career, i.e. at the time when people first enter the employment market, they rely predominantly on the "satisficing" strategy. Furthermore a majority of respondents base their choices on one reason alone i.e. on the imitation of a social model, above all that of their parents.

Later on in their careers, once they are engaged on a satisfying career-path, incremental heuristics come into play: at this point respondents decide in favour of the options that bring them gradually by increments closer to their aspired goals.

According to Wresch (2008) the most frequently applied strategies were "satisficing" and "incrementalism" followed by "elimination strategies" that were above all used whenever alternatives had been set from outside.

When faced with two or more alternatives, many respondents relied on "fast and frugal heuristics" such as the "take-the-best" and the "minimalist" heuristics.

Strategies such as delaying the decision, "planned happenstances", emotional heuristics such as "accepting the first alternative you feel comfortable with" and random or spontaneous decisions, were exceptional.

Trisoglio (2008) draws the following conclusions: the vocational decision-making processes of the respondents do not follow the premises of normative decision-making models, as the decisions are in each

instance based on very few pieces of information. Very often decisions were based on so-called “aha experiences”, gut feelings and intuition. Furthermore career choices obey to the same mechanisms as other existential decisions with gut feelings and emotional strategies as well as the efforts to join rational and emotional elements remaining stable over time and across changing situations.

Interpretation and Generalisation

One can argue that such behavioural patterns are based on Krumboltz’s “happenstance” in as far as rather than relying on rational decisions, respondents use unplanned chance events in order to attain satisfying lives. As we know Krumboltz (2003) recommends that counsellors use the following five steps:

1. the counsellor should reassure counsees that chance events constitute both a normal and necessary place in career choice;
2. the counsellor should support counsees in identifying factors that could enrich their professional lives;
3. the counsellor should encourage counsees to use their past positive experiences with unplanned chance events as a basis for future actions;
4. the counsellor should support the counsees in recognising chance events and in using them to their benefit;
5. counsellors should enable counsees to identify views or beliefs and external obstacles that may prevent them from taking constructive steps in their career path.

Obviously, therefore, there is a need to reassess the role of rational decision-making theories within the development of guidance theories and practices. We would like to go beyond Krumboltz’s idea of “happenstance” and promote the use of heuristics in guidance counseling as we believe that “merely” using favourable moments or seizing the opportunities of unplanned chance events does not constitute an effective problem solving strategy.

Happenstance just happens, happenstance just comes about by chance i.e. it occurs before heuristics, literally defined by the OED as strategies “serving to find out or discover” (Oxford English Dictionary) i.e. as genuine problem solving strategies, come into play.

If we assume that decision-making processes are triggered by the realisation that the present state must be changed, it follows that routines and algorithms do not constitute effective problem-solving strategies.

Contrary to “happenstance”, or the advantage taken from chance events, heuristics are strategies used to facilitate and improve decision-making – reducing the time spent looking for and processing information.

“Happenstances” are no more than chance events which counselees recognise as favourable because they correspond to a given need.

As with any existential decisions, most career decisions are prompted by external factors such as leaving school, finishing training, redundancy or professional adaptation. It would therefore be inadvisable for one to hope for a chance event to save the day. Frequently people have to react without delay in order to reach the best possible conclusion within a limited time-frame, with limited knowledge and limited cognitive processing abilities, and hence heuristics constitute the only realistic decision-making strategies adapted to their realities.

Within heuristic decision-making strategies however, apparent chance events or favourable circumstances can indeed play an important part in as far as they might constitute an unexpected moment of lucidity such as a sudden bright idea or discovery – remember Archimedes - but even then it is heuristic strategies that engender such misnamed chance events or favourable moments that allegedly occur out of the blue. Needless to say that while happenstance obviously exists, we remain sceptical regarding the possibility of “planning happenstance”.

These misgivings are highlighted in a recent case study by Ruppert and Ertelt of a young student from Luxembourg in her last year of secondary school, deciding whether or not to go to university. Furthermore she could not decide where or what subject to study. Then she met a young man at a Christmas party who she fell madly in love with. This young man was a first year economics undergraduate at Stirling University in Scotland. Suddenly the question of whether to study or not had been answered as she now decided to go to university. This is a perfect example of “happenstance” as she used a chance event to take the decision to go to university.

At the same time the problem of where to study had also been solved as, surprise, surprise, she decided to go to Stirling University in Scotland. Here she relied on the “satisficing” heuristic i.e. going to Stirling University met her aspiration to be with her boyfriend.

When looking at what to study, she based her decision largely on the fact that she followed the natural sciences stream while at secondary school and chose to read biology, chemistry and psychology in her first

year. Here she used an “incremental” heuristic, delaying the final decision of what to graduate in: *“I’ll give it a go and see what it’s like.”*

After successfully completing her first year, she decided to drop chemistry and carry on with biology and psychology. Here she used the “minimalist” heuristic: *“I like biology and psychology better than chemistry.”*

After her second year she opted to graduate in psychology: *“I find psychology fascinating and I believe my two years of biology will be useful.”* Here she obviously had considered other options but decided to “take the best”.

At present she still is with her boyfriend and although both seem very committed to each other, she nevertheless remains open regarding the future, not planning chance events but being prepared and ready to deal with unforeseen developments whenever they may occur.

Future research must therefore concentrate on how and when decision criteria and strategies change over time in order to determine what kind of information and which counseling techniques are most suited for specific so-called key moments such as leaving school.

In conclusion we are convinced that once we are able to determine which “simple” heuristics people use at a any given point in education, training or professional life, we will be able to deliver better guidance and release people from the fear of making a “wrong” decision.

We confess though that sometimes we worry that an over-reliance on one’s ability to “muddle through” will encourage an attitude of passive acceptance of what one might call “fate” and that this may in turn encourage people to see themselves as victims of circumstance whenever things don’t go their way.

What we call “muddling through” is actually more than just making haphazard choices, it can in fact be considered a way of life. A descriptive heuristics-based approach will allow counselees to see their vocational decisions as part of a life-long, on-going process, as a series of positive steps towards appropriate career opportunities rather than feeling that professional doors are closing at each so-called key-moment. In such a framework, each new situation represents new challenges, new opportunities and, of course,..., new decisions, new choices.

With our approach we can follow the words of Gerd Gigerenzer (2004): “... I invite you to a journey into a land of rationality that is different from the familiar one we know where the sun of enlightenment shines down in beams of logic and probability. The new land of rationality we set out to explore is shrouded in a dim mist of uncertainty, populated with people who have limited time and knowledge, but with smart

heuristics at their disposal. Welcome, and I hope you feel at home in this world”.

Conclusions

Adopting heuristics for practice in counselling will have fundamental consequences.

Information management must adapt to a greater extent to demand-oriented systems and leave behind, also for economic reasons, the currently still predominant supply-oriented systems. The authors of “Career Guidance: A Handbook for Policy Makers” (edited by the OECD and European Commission) observed already in 2004 that “very little career information is designed using research on client needs for the different types of career information, on their preferences for different ways of delivering it, or on their satisfaction with existing career information products.” (chap. 10, p.41).

The “information structured methodology” (ISM) counselling concept developed by Ertelt and Schulz (1997, 2008) deliberately turns away from the normative supply-oriented concepts of prescriptive decision-making models and thus constitutes a rare exception in career guidance counselling concepts.

Given the conditions most career guidance counselling frequently takes place - low counsellor-counselee interaction (on average one to two counselling sessions), the pressure the counselee is under and the importance of the decision he or she has got to make, the complexity of the labour market and the professions, the legal relevance of the advice given

- the role of the counsellor increasingly changes into one of an expert who must weigh and select and of course, bring in specialist knowledge that may contribute to the decisionmaking process.

At the same time the counsellor must take care the counselee can understand and help shape the decision-making process as this constitutes the only way the ethically standardized goal of a decision that is ultimately the responsibility of the counselee can be upheld. Here the ability of the counselor to achieve “cognitive empathy” i.e. to tune into the guiding heuristics of the counselee and to explore them with him or her, becomes a key competence.

In this context the concepts of “ecological rationality” and “social rationality” are very helpful as they describe the compatibility of real-world environments with individual heuristics, and take into account emotions and the integration into social norms. The finality of “ecological

rationality" is to make fast and frugal and relatively accurate decisions that are furthermore ethically acceptable as regards their "social rationality" (Gigerenzer, 2002).

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