

***“Heuristic Theory of Decision-Making:
Evidence and Implications for Career Guidance”***

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Professionalisation of Career Guidance:

European mobility – Chance and Challenge

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“Ideal” Conditions for the Optimisation of Decision-Making

- *the goals must be well defined, in quantitative terms;*
- *the decision-maker’s values must be stable;*
- *the situation must be stable;*
- *the task is restricted to the selection between options;*
- *the number of alternatives generated must be exhaustive;*

- *the optimal choice can be selected without disproportional time and effort;*
- *the options must be thoroughly compared to each other;*
- *the decision-maker must use a compensatory strategy;*
- *the probability estimates must be coherent and accurate;*
- *the scenarios used to predict failures must be exhaustive and realistic;*
- *the evaluation of each scenario must be exhaustive.*

G. Klein (2002)

“bounded rationality”, “ecological rationality”

“fast and frugal heuristics employ a minimum of time, knowledge and computation to make adaptive choices in real environments”

G. GIGERENZER, P. TODD and the ABC Research Group, (1999)

Search, Stopping and Decision Rules of some **HEURISTICS**

heuristic	search rule	stopping rule	decision rule
satisficing	random search for alternatives	search is stopped as soon as an alternative meets the satisficing threshold	decision in favour of the first alternative that meets the satisficing threshold (aspiration level)

***satisficing** is basically the same as incrementalism but the individual does not just take any incremental step or accept any change from a given point of departure but that step constitutes an improvement in as far as it « **satisfies** » a certain need or aspiration.*

Search, Stopping and Decision Rules of some **HEURISTICS**

heuristic	search rule	stopping rule	decision rule
incrementalism	search for alternatives that deviate only a little from the point of departure	search is stopped as soon as an alternative represents an improvement on the point of departure	decision in favour of the alternative that deviates only a little from the point of departure but represents nevertheless an improvement (chosen alternative becomes new point of departure)

*Sarah would like to become a nurse. As her grades are unfortunately not good enough she decides to train as an ancillary i. e. she uses an **incremental** heuristic as she chooses the alternative that is closest to nursing.*

Search, Stopping and Decision Rules of some **HEURISTICS**

heuristic	search rule	stopping rule	decision rule
minimalist	random search for a relevant criterion that differentiates between alternatives	search is stopped as soon as a criterion is found that differentiates between alternatives	usually decision in favour of the “known” alternative; otherwise decision in favour of the alternative with the highest cue validity on the chosen criterion

*after a rather lengthy procedure primary school pupils in Luxembourg are ‘guided’ at the age of 12 into a vocational or a more academic stream of secondary school. If on the whole parents follow the recommendations of the guidance board, though all too frequently very reluctantly, the children usually get the choice of which school to go to. If John then decides to go to the same school as most of his mates, his decision of ‘doing what his friends do’ is a good example of the use of a **minimalist** heuristic as he does not (really) consider any other alternatives.*

Search, Stopping and Decision Rules of some **HEURISTICS**

heuristic	search rule	stopping rule	decision rule
take the best	“ordered” search for a criterion with the highest decision potential	search is stopped as soon as a criterion is found that discriminates between alternatives	decision in favour of the alternative with the highest cue validity on the chosen criterion

*the **take the best** heuristic is similar to the minimalist heuristic but there is more information available and the search is more ‘ordered’. If Sarah decides to study at the university where her boyfriend is already a student and if she reaches that decision after having considered possible alternatives, she uses the **take the best** heuristic as she decides in favour of the alternative with the highest cue validity on the chosen criterion i. e. to be with her boyfriend.*

HAPPENSTANCE and HEURISTICS

*in her last year at secondary school, a student in natural sciences
could not decide whether to go to university, where or what subject to study*

3 months into her final year at secondary school,
she fell in love with a 1st year economics
student at Stirling University in Scotland

going to Stirling University met her
aspiration to be with her boyfriend
"He's the one !"

1st year: biology, chemistry, psychology
"I'll give it a go and see what it's like."

2nd year: biology & psychology
"I like biology and psychology better than chemistry."

3rd year: psychology:
"Psychology is fascinating, 2 years of biology useful."

'HAPPENSTANCE'

the **'SATISFICING'**
heuristic

the **'INCREMENTAL'**
heuristic

the **'MINIMALIST'**
heuristic

the **'TAKE THE BEST'**
heuristic

« ... 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. »

Gerd Gigerenzer (2004)

Thank you for your attention.

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