

Conference abstract

Neuroeconomics and public health

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Abstract

Objective: To design an economic evaluation strategy for general health promotion projects.

Method: Identification of key parameters of behavioral health from neuroeconomic studies.

Results: The Frontal Power of Concentration (**C**) is a quadripartite executive integrator depending on four key parameters:

- 1) The Limbic system originating ambivalent emotions (**L**).
- 2) Volition in the Prefrontal Cortex (**c**) controlling cognitive prediction and emotions with a view on Frontopolar long-term goals.
- 3) Semantic memories in the Temporal lobe (**R**).
- 4) An intuitive visuospatial sketchpad in the Parietal lobe (**I**).

C aiming to minimize error between preferences and predictions is directly determined by the following equation including **I** as a stochastic knowledge component:

$$C = Rc2/L + \epsilon I \rightarrow 1$$

Discussion: All of the parameters of **C** are object to improvement by training:

1. Cognitive predictions are improved by open-mindedness towards feedback (**R**).
2. The effect of emotional regrets is reinforced by an appropriate level of fitness (**c, L**).
3. Our imagination may be unfolded by in-depth-relaxation-procedures and visualization (**I**).

Conclusion: Economic evaluation of general public health should focus on the subset of separate and integrated interventions that directly affect the parameters of Formula **C** in individuals.

Keywords

neuroeconomics, economic evaluation

Presentation slides available from:

<http://www.integratedcare.org/Portals/0/congresses/Finland/Presentations/Larsen%20Neuroeconomics%20and%20PH.pdf>