

Referee of the article
“Simulation of emotional processes in decision making ”
by Karim Mahboub

This paper deals with the delicate subject of introducing human emotions or, rather, human-emotion-like parameters in decision making. A particular model is chosen to simulate emotions using a sociological approach within a well-defined context in the world of cognitive psychology: the Gambling Task.

Of course, one has to quantify and categorize so, one of the most famous model is chosen. It is the OCC model, wrought out by three psychocogniticians: Ortony, Clore and Collins.

Following Bechara and Damasio, The Gambling Task, is a well-known test which aims at stimulating the emotional processes of a player by giving him some money and proposing him to increase his capital through a card game. This game consists of four decks of cards. On each card a number representing a certain amount of money, positive or negative, is written. For each card taken, the player wins or loses money with respect to the amount indicated on the card. The game stops when a hundred cards have been taken.

As four decks are under consideration, it seems natural to adopt a description consisting of a graph with four vertices and stochastic transition. This model, a stochastic evolutive automaton is relevantly proposed here.

My overall judgement is that the paper is well written, well documented and the ideas developed in a simple (but powerful) manner deserve to be expounded in this order and with this motivation somewhere.

I warmly recommend acceptance.

Suggestions for improvements. —

Here, “par” stands for “paragraph”, “ln” stands for “line n” (from top) “l-n” stands for “line n from the bottom of the paragraph”.

par 1. —

l8 [a sociological approach in a very particular context] → [a sociological approach within a very particular context]

l-4 [After having a look at the sociological] → [After having had a look at the sociological]

par 3 Decision making process, 1.. —

l4 [To do so, we need to calculate every P value in the graph,] → [To do so, we need to calculate every probability value in the graph,]

Emotional feedback

l19 [is to be changed gradually, without brutal transformation.] → [is to be changed gradually, without abrupt transformation.]

l21 is it k_i or k_{i+1} in the equation ?

par 4 Results

l-1 [a normal human being who plays the Gambling Task usually react that way.] → [a standard human being who plays the Gambling Task usually reacts this way.]

par 5. —

l2 [we aim to complete the model structure] → [we aim at completing the model structure]

l-10 [with many different parameters to take into account] → [with many different parameters to be taken into account]

l-8 [consists of a list of basic emotions in a sociological point] → [consists of a list of basic emotions within a sociological point]