Recently Zadeh described an outline of the perception-based theory for probabilistic reasoning. His principal aim is to lay the groundwork for an enlargement of the role of natural languages in probability theory and its applications, especially in the fields of decision analysis.

The traditional stopping problem in a stochastic environment is described by real random variables. However, we are often faced with the case that the value of random variables are partially observed by dimness of perception or measurement imprecision. For example, in the problem of selling or buying an asset, the price of the asset may be not observed exactly and linguistically and roughly perceived.

Motivated by the above perception theory concerning probabilistic reasoning, we try a perceptive analysis on the fuzzy stopping problem, whose membership functions can describe the perception value of the price. We also investigate a method of computing the fuzzy perception reward when the processes are stopped optimally. Previously we have presented an evaluation method with a linear ranking function for the fuzzy stopping problem. Here, we alternatively discuss the fuzzy expectation by way of the perception theory and give some notations and definitions of the fuzzy perception function referring to Baswell and Taylor, by which a perceptive stopping problem is formulated in the sequel.

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