

Following up on previous results by Falmagne (1993), this paper investigates possible mechanisms explaining how preference relations are created and evolve over time. We postulate a preference relation which is initially empty and becomes increasingly intricate under the influence of a random environment delivering discrete tokens of information concerning the alternatives. The framework is that of a class of real time stochastic processes having interlinked Markov and Poisson components. Specifically, the occurrence of the tokens is governed by a Poisson process while the succession of preference relations is a Markov process. In an exemplary case, the preference relations are the various possible semiorders on the set of alternatives. Asymptotic results are obtained in the form of the limit probabilities of any semiorder. The arguments extend to much a more general situation including interval orders, biorders and partial orders. The results provide (up to a small number of parameters) complete quantitative predictions for panel data of a standard type, in which the same sample of subjects has been asked to compare the alternatives a number of times.