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Title: The Two-choice Paradigm and Altered Thresholds

Abstract: Many structures have been studied which are built by the successive random insertions of elements. Examples include balls-in-bins situations and random graphs. If a structure is built by the arrival of items which have a choice of two random places to be inserted, rather than just one, then by choosing judiciously, one can alter the properties of a typical structure. In particular, the threshold of appearance of properties can be essentially different. This phenomenon has been investigated for some time in applications to hashing, routing, and load balancing of processors. I will discuss recent investigations involving random graphs of various sorts.