# Some Random Thoughts on Chance and Skill

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The roles of chance and skill in strategy games are often confused. I argue that chance is not the same as luck nor skill the same as intelligence, and explore some ideas along these lines. This discussion is an updated version of a paper presented at the 2008 Board Game Studies Colloquium held in Lisbon.

## 1 Introduction

**L** IKE Gaul, games are anciently and popularly divided into three parts: games of skill such as Chess and Go, games of chance such as Snakes & Ladders and Roulette, and games of mixed chance and skill such as Backgammon and Bridge. Such categorisation is patently inadequate. It is slightly more adequate to demolish the divisions and regard chance and skill as polar opposites of a single continuum, so that any given game – or any given instance of one – may be regarded as involving *X* percent skill and (100 - X) percent chance.

But then skill and chance are themselves inadequate terms. Games involve many different forms of chance, some of which are perceived rather than real. A more appropriate term for this end of the spectrum is uncertainty, or unpredictability as to the outcome of a game. All games by definition involve a degree of uncertainty, for if the outcome of a game were ever entirely certain or predictable there would be no point in playing it.

At the opposite end of the spectrum lies the antidote or counter to uncertainty, which is the degree, if any, to which you can control or at least influence the outcome of a game. The opposite of uncertainty is better characterised as controllability rather than skill, as skill itself is not an atomic property: there is no such thing as a single, universal 'skill at games' but rather many different types of skill. People tend to play those games for which their particular talents suit them, or, if their talent is not one of controllability, to which they are most attuned by temperament.

I am interested in exploring the elements of uncertainty or types of chance that may be encountered in games, and the corresponding elements of skill or types of controllability that may be employed to counter them. This exploration takes me into specialised disciplines, such as mathematics, psychology, and pedagogy, in which I have absolutely no qualifications or expertise. I write purely as a games enthusiast and inventor, and can only hope that my comments might be found to have some bearing on: a) the classification of games; b) inventing games; and c) games appreciation.

## 2 Uncertainty (Chance)

#### 2.1 Randomisation

The primary, most fundamental and oldest embodiment of uncertainty is the occurrence of randomising events such as the cast of lots or dice, for which reason many suppose games to have originated in the practice of divination. Equally fundamental, but historically more recent, is the randomisation of an initial position, which is classically embodied in the dealing of playing-cards from a shuffled pack.

#### 2.2 Compulsion (vs Choice)

An element of uncertainty occurs in randomising games that give you no choice of play. A classic example is the Indian ancestor of our Snakes (or Chutes) & Ladders. Why such a game should continue to exist is well explored by Salen & Zimmerman in Rules of Play [2, p. 179]. Briefly, it may be ascribed to the quality of drama it displays, that is, the possibility for a player to recover from a weaker position. I would paraphrase their argument by suggesting that Snakes & Ladders may be regarded as an overlap between, on one hand, the playing of games, and, on the other, the performance of plays, a point which I think would have appealed to historian Johan Huizinga.<sup>1</sup> Compulsion also overlaps with divination, in that it is an essential property of Fate. The opposite of compulsion is choice, or free will, which provides an essential opportunity for the exercise of skill.

<sup>&</sup>lt;sup>1</sup>Huizinga is the author of the famous treatise *Homo Ludens: A Study of the Play-Element in Culture* [3].