28 Article

Dameo: A New Step in the Evolution of Draughts?

Christian Freeling, Mindsports

Draughts or Checkers is a family of games with a long evolution, but one which seems to have ground to a halt during the last half century or so. Anglo-American Checkers has been solved by computer [1] to give a draw, International Draughts faces serious issues with drawishness in top-level play, while other forms such as Turkish, Frisian and Russian Draughts operate in the periphery. This paper presents my game Dameo, a relative newcomer to the Draughts family, that I believe takes an evolutionary step in the right direction.

1 Introduction

The Draughts family of games has evolved through the centuries, and existed in many forms. The many versions share common familiar mechanisms, such as moving or jumping to empty squares in line, mandatory capture by jumping over enemy pieces, and men reaching the far row to be promoted to more powerful kings. Even though they differ in details (such as board size, starting position, whether kings move long range, direction of movement, etc.), they mostly share a long tradition of various fascinating strategy and tactics.

But in the most prevalent standardised form of International Draughts, as well as other popular variants, there is a problem of draws between very strong players, who have in effect become too skilled at the game in its current form. This article presents the evolution of the game and the increasing body of knowledge about it, along with several attempts to modify it to eliminate the drawishness which appears in top-level play, while still preserving the fundamental character of the game and its traditional tactics, which generations of players have enjoyed.

2 The Development of Draughts

The earliest ancestor of Draughts is generally thought to be Alquerque [2]. The famous *Libro de los Juegos* (Book of Games) [3], commissioned by Alfonso X, King of Castile, León and Galicia (1221–1284) and completed in 1283, contains a small and ambiguous section about the game.

Alquerque has characteristic Draughts mechanisms (move, or jump to capture). However, there are not yet the concepts of piece promotion to king or *maximal capture*.² Note too that some board locations have only orthogonal links to neighbours, while others also have diagonal

links, so that the movement ability of a piece (in terms of orthogonal and diagonal movement) depends on its current location, unlike later games in the Draughts family.

Alquerque is played on a 5×5 square grid, with lines connecting adjacent points.

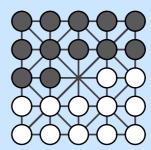


Figure 1. Alquerque.

Players take turns either:

- 1. moving one of their pieces to an adjacent empty point, or
- 2. jumping one of their pieces over an adjacent enemy piece to an adjacent empty point on the opposite side.

Chains of jumps are possible. A jump must be made, if possible.

More information exists about the evolution of Draughts in 16^{th} century Europe, where the availability of checkered Chess boards suggested their use for games other than Chess, triggering a period of rule experiments. An important property of the checkered board is that it suggests the use of only one subgrid, with pieces limited to diagonal moves, as in modern International

 $^{^{1}}$ The author's page gives an overview: http://mindsports.nl/index.php/on-the-evolution-of-draughts-variants 2 Maximal capture means that the mover *must* make a sequence of moves that captures the most pieces.