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Marion Tinsley: Human Perfection at Checkers?

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Marion Tinsley died on April 3, 1995, at the age of 68. Why does the death of this checkers (8×8 draughts) player attract our attention? His record speaks for itself:

Since an accidental loss in the 1950 U.S. Championship, Tinsley finished in undivided first place in every tournament that he played in, except the last (in the 1994 U.S. Championship, he tied for first place with the computer program *Chinook* and Don Lafferty). He contested nine World Championship matches, winning each usually by an embarrassingly large margin. Over the last forty-five years of his life, comprising thousands of tournament, World Championship, match, exhibition and casual games, Tinsley lost the unbelievable number of seven games. Seven games!? In forty-five years? This is as close to perfection as is humanly possible.

Tinsley once remarked that he had become bored playing humans; there wasn't any challenge left. When he was young, he began to acquire the reputation of being unbeatable. For forty-five years, most of his opponents would play for the draw; going for a win was unthinkable. Tinsley's enjoyment of checkers waned, and at one point he retired from the game for twelve years because of a lack of competition.

When the program *Chinook* came on the scene, Tinsley relished the opportunity to play it. *Chinook* had no respect for Tinsley's abilities, willingly taking risks: anything to increase the chances of winning. Tinsley said that playing *Chinook* made him feel like a young man again. In 1990, *Chinook* earned the right to play Tinsley for the (human) World Checkers Championship. The American Checker Federation and English Draughts Association (A.C.F. and E.D.A., the governing bodies for international checkers) refused to sanction the *Chinook*–Tinsley match, retroactively deciding that computers were ineligible for the World Championship. He was unable to change their decision, and he took what he perceived to be his only option. In 1992 he resigned as World Champion, then immediately turned around and signed a contract to play the match with *Chinook*. Although this match was not the "official" World Championship, Tinsley was the champion and *Chinook* the official challenger. In their embarrassment, the A.C.F. and E.D.A. hastily created a new Man-Machine World Championship title so they could be part of the *Chinook*–Tinsley match. The two governing bodies were now faced with the prospect of crowning a new human World Champion, which was meaningless as long as Tinsley was alive. They decided to award him the title World Champion Emeritus.

The match was held in London in August 1992, and was sponsored by Silicon Graphics. The final result was four wins and two losses for Tinsley, with 33 draws. These were only the sixth and and seventh losses by Tinsley since 1950.

In August 1994, Tinsley battled *Chinook* again for the Man-Machine title. After six games, all draws, Tinsley resigned the match and the title to *Chinook*, citing health reasons. A week later he was diagnosed with cancer, and after seven months he succumbed to the disease.

In the domain of competitive mind games, such as chess or bridge, Tinsley's record is unparalleled. Strong players come to the fore frequently, but their tenure at the top is usually short-lived. Emmanuel Lasker, chess World Champion for over twenty years, is an isolated exception. Being the best over a 45-year period is unprecedented.

Was the Tinsley of 1994 as good a player as the Tinsley of, say, 1950 or 1970? Knowledgeable checkers players say the answer is yes. However, in old age he became lazy, winning the minimum number of games needed to carry a tournament or match, and then effortlessly drawing the rest (even not bothering to follow through in won positions because it required too much effort).

What made Tinsley such a strong player? I asked him that question several times, without getting an adequate answer. Like many strong game players, he would say that when playing a game he just "knew" the right move to make. The solution to a problem was immediately obvious to him, even without having analyzed all the ramifications of the move. He was rarely wrong.

Having observed him for several years, I can make a few comments on his strength. First, there is no doubt that Tinsley had an incredible memory. Before I first met him, I was acquainted with the stories—apocryphal, I assumed—concerning his memory. One man reported that, when Tinsley was young, he studied checkers eight hours a day, five days a week. As he got older, this dropped to one day a week. This person claimed that Tinsley could recall every one of those sessions. Needless to say, I found this difficult to believe.

After *Chinook*'s first game against Tinsley in 1990, we started analyzing the game. He began recounting the history of the opening line we played, recalling games he had played in the 1940's! The move sequences flowed easily from him, without hesitation, sometimes annotated with the name of the opponent, date or place where the game was played! Games played in 1947 were as vivid in his memory as if it they had taken place only yesterday.

The second facet to his play was his incredible sixth sense. A glance at a position was sufficient to tell him everything he needed to know. For example, in 1990 *Chinook* was playing Tinsley the tenth game of a fourteen-game match (won by Tinsley 1–0 with thirteen draws). I reached out to play *Chinook*'s tenth move. I no sooner released the piece than he looked up in surprise and said "You're going to regret that". Being inexperienced in the ways of the great Tinsley, I sat there silent, thinking "What do you know? My program is searching twenty moves deep and says it has an advantage". Several moves later, *Chinook*'s assessment dropped to equality. A few moves later, it said Tinsley was better. Later *Chinook* said it was in trouble. Finally, things became so bad we resigned. In his notes to the game, Tinsley revealed that he had seen to the end of the game and knew he was going to win on move 11, one move after our mistake. *Chinook* needed to look ahead sixty moves to know that its tenth move was a loser.

My observations of tournament chess and checkers players have led me to conclude that the sixth sense is experience. It is well known how intensely Tinsley studied checkers, analyzing anything from a grandmaster game to a game between novices. His uncanny ability to know good from bad and safe from dangerous is the direct result of all his hard work. Strong chess players have the same ability, but perhaps it is not quite as evident as it was with Tinsley.

What made Tinsley special was his play away from the board. He was universally liked. He was kind and gentle, eager to talk equally with checkers master and checkers novice. The first time I met him is indelibly imprinted on my mind. I was attending *Chinook*'s first human tournament, the 1990 Mississippi Open. I had never attended such an event before, and knew no one. I walked in the door, tried to get my bearings, but must have looked lost. A tall slim man walked up to me and said "You look like a checkers player. Can I help you?" He proceeded to introduce me to the tournament organizer and director, and asked whether I needed any help with the hotel. This kind stranger turned out to be Marion Tinsley. I was a stranger walking in off the street and was treated royally by the World Champion. Even though Tinsley was our adversary over the checkerboard, away from it he was our friend.

Professionally, Tinsley was a professor of mathematics at the University of Florida at Tallahassee. Away from work and the checkers board, he was a Baptist minister.

Tinsley could have said no when faced with the prospect of defending his title against a computer. Instead he bravely said yes, setting a precedent that we hope will serve as an example to champions in other competitive games.

It was Tinsley's fervent wish to remain an undefeated champion. As long as his health remained sound, he claimed he would never lose a match to *Chinook* or anyone else. It was the *Chinook* team's wish to defeat Tinsley and become the first computer World Champion (in any game). Ironically, in the end both sides saw their wishes realized, although under less happy circumstances than both would have liked. *Chinook* reluctantly became the first computer World Champion by winning on forfeit from Tinsley. Tinsley, however, remained undefeated over-the-board by resigning a drawn match.

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