Marion Tinsley:
Human Perfection at Checkers?

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Marion Tinsley died April 3, 1995, at the age of 68. Why does the death of this checkers (8X8 draughts) player attract our attention? His record speaks for itself:

Since an accidental loss in the 1950 U.S. Championship, Tinsley amassed an incredible record. Over the period 1950-1995, he finished in undivided first place in every tournament that he played in †. He contested 9 World Championship matches, winning each usually by an embarrassingly large margin. Over the last 45 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 45 years? Tinsley was as close to perfect as is humanly possible.

Tinsley once remarked that he had become bored playing humans; there wasn't any challenge left. When he was young, Tinsley began to acquire the reputation of being unbeatable. For 45 years, most of his opponents would play for the draw; going for a win was unthinkable. Tinsley's enjoyment for the game waned, and at one point he retired from the game for 12 years because of a lack of competition.

When the checkers 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 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. Tinsley was unable to change their decision and he took what he perceived to be his only option. In 1992 he resigned as World Champion, and 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 A.C.F. and E.D.A. 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 the title World Champion Emeritus to Tinsley to ensure he was always the Champion.

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† The exception was Tinsley's final tournament. In the 1994 U.S. Championship, he tied for first place with *Chinook* and Don Lafferty.

The match was held in London in August 1992 with Silicon Graphics sponsoring the event. The final result was 4 wins for Tinsley, two for *Chinook* and 33 draws. *Chinook*'s two wins represented only the 6th and 7th losses by Tinsley since 1950.

In August 1994, Tinsley battled *Chinook* again for the Man-Machine title. After 6 games, all draws, Tinsley resigned the match and the title to *Chinook* citing health reasons. A week later, Tinsley was diagnosed with cancer and 7 months later 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. In chess, Emmanuel Lasker was World Champion for over 20 years, but this is an isolated exception. Being the best over a 45 year period is unprecedented. Was the Tinsley of 1994 a weaker player than, say, the Tinsley of 1950 or 1970? Knowledgeable checkers players claim that the Tinsley of 1994 was as good as he had always been. However, in old age he became lazy, winning the minimum number of games needed to win a tournament or match, and then effortlessly drawing the rest (even not bothering to win 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, Tinsley says that when playing a game he just "knows" 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 has an incredible memory. Before I first met the man, people told me apocryphal stories. One man claimed that when Tinsley was young, he studied checkers 8 hours a day, 5 days a week. As he got older, Tinsley studied only 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. Tinsley began recounting the history of the opening line we played, recalling games he 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! 1947 was as vivid in his memory as if it were only yesterday.

The second facet to his play was his incredible sixth sense. A glance at a position was sufficient to tell Tinsley everything he needed to know. For example, in 1990 *Chinook* was playing Tinsley the 10th game of a 14 game match (won by Tinsley 1-0 with 13 draws). I reached out to play *Chinook*'s 10th move. I no sooner released the piece when Tinsley looked up in surprise and said "You're going to regret that". Being inexperienced in the ways of the great Tinsley, I sat there silently thinking "What do you know? My program is searching 20 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 60 moves to know that its 10th 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 the game, 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 forever 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 enquired as to 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, Tinsley 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 that he 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). It is ironic that in the end, both sides got their wish, 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.