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Secret Matches: The Unpublished Training Games Mikhail Botvinnik

1997 Rematch: Garry Kasparov versus Deep Blue

Game 6

The Garry Kasparov versus Deep Blue match had all the drama of a great epic. Going into the last game with the match tied the expectation and excitement had reached fever pitch. My audience had just begun to warm their seats when the game was over! In just over one hour the match was over and we were all left gasping for answers. I hope these comments provide some crucial clues to the most gripping chess event that I've ever had the pleasure to be involved with.

White: Deep Blue Black: Garry Kasparov

1.e4 c6

Garry's opening choice came as a great disappointment to me. He rarely plays the Caro-Kann and the opening does not suit his style of play. I had expected and hoped for his vaunted Sicilian Defense (1...c5) which he plays supremely well.

2.d4 d5 3.Nc3 dxe4 4.Nxe4 Nd7 5.Ng5 Ngf6 6.Bd3 e6 7.N1f3

All of the previous moves are "standard opening theory" played in thousands of games before. Kasparov's next move came as a great surprise.

7...h6(?!)



The text has a dodgy reputation based on the results of previous games played with this move. While playable, it is definitely not the main line. The normal move is 7...Bd6 (First!) 8.Qe2 h6 9.Ne4 Nxe4 10.Qxe4 Nf6 as has been seen in countless games.

8.Nxe6

This sacrifice is the only chance for White to gain an advantage. After 8.Ne4 Nxe4 9.Bxe4 Nf6 10.Bd3 c5 is fine for Black since he hasn't yet moved his f8-Bishop the freeing break ...c6-c5 and the subsequent move ...Bf8-c5 doesn't come with the loss of a tempo. Therefore the text. However, the effect of White's move had a devastating effect on Garry's face. He looked as if he had just been hit by a bolt of lightening.

While we were busily speculating if Kasparov had come prepared with a novel idea his reaction was manifestly clear, he had transposed his move order and fallen into a well known book trap!

How on earth was this possible? Garry Kasparov is arguably the finest opening theoretician in the world today. How could he fall into a known opening trap? There are several answers. In the post match press conference, Garry explained that he had lost his confidence. Following the disappointing draw in game five he had told his trainers that, "The match was over." Garry had simply given up and went into the game with a losing mentality. Too, Garry had exhibited signs of increasing nervousness and tension following game two. Playing openings and defenses that were unfamiliar to him he had hoped to out fox the computer. He had done so, but, also achieved positions that didn't suit him.

Following the look of appall on his face following the text Garry clinched his head in his hands looked plainly disgusted and banged down his next move swiftly.

8...Qe7?

This however is a known mistake. When it rains it pours and mistakes usually come in numbers. For Caro-Kann players like myself, we are aware that 8...fxe6 9.Bg6+ Ke7 10.O-O Qc7 11.

Re1 Kd8 preparing ...Bf8-d6 is the only way to go. This variation is not to everyone's taste as Black's King and his lack of development promise a difficult future. However, if Black can solve his current problems he has an extra piece to give him hopes.

In the many games that feature the text, White has won all of those in my database! The problem as we shall see is that Black's Queen is terribly misplaced.

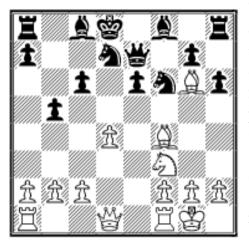
9.O-O fxe6 10.Bg6+

Deep Blue's operator, Joe Hoane was so nervous at this point -Deep Blue's evaluation was in its favor - that he shakily started playing 10.Bc1-g6+ an illegal move. Since this is not Deep Blue's fault the rules concerning the operator's moves are not touch move.

10...Kd8 11.Bf4

The most incisive. The Bishop is on a superb diagonal covering key squares which control the movements of both Black's King and Queen. Other known moves include 11.c4 when Black has also been swept off the board.

11...b5?



Unfortunately for the commentators we were trying to justify Kasparov's opening choice and explained that the novel move 11...b5 was prepared by Garry and that all of his head shaking was his attempt for an Oscar for best drama. Previous games have seen 11...Qb4 trying to make room for his pieces. But these games also have resulted in

Black losses.

The purpose of the text is to secure the d5-square for a Black Knight when it can't be dislodged by c2-c4. A noble aim except that it simply does not work. There is no question that Black faces difficulties but the computer's approach to winning the game is quite different from a human's. Essentially the computer looks at each position as if it were unique. It doesn't have prejudices about previous ideas but tries to play the best move according to its evaluation and its thinking.

Take another look at the position before the text move. In general, it is good to win a Queen for Rook and Bishop. A computer is correctly programmed to think that winning a Queen for Rook and Bishop is a good thing. White can play Rf1-e1 and Bg6-f5 in order to win the e7-Queen. Also the computer likes to win pawns and could play for Rf1-e1 and Qd1-e2xe6 when in both cases Black is relieved by the trades. If White is given the opportunity to carry out either of these operations it is definitely in Black's interests to let him!

With the text, Kasparov weakens his entire Queenside structure and allows White to develop his a1-Rook. What were his choices? Well, 11...Nd5 12.Bg3 Qf6 13.Bh4 definitely fails. And no one wants to play Black after 11...Nd5 12.Bg3 N7f6 13.Ne5 when White has too many threats. In the past 11...Qb4 hasn't worked so another strategy has to be found. An anti-computer strategy. Kasparov facing a difficult position has to let the computer bail him out!

My suggestion is to do little! Black should draft his Queenside into the game while trying to induce Deep Blue to win material. Of course I can't guarantee such a strategy would work! This then is my suggestion: 11...a5!! (Two exclaims for understanding the opponent is a computer.) 12.Re1 (12.a4!? b6 13.c4 Ba6 14.Rc1 Kc8 is Black's basic idea given the chance he wants to play ...Kc8b7 and try to hold on.) 12...a4 13.Qe2 b5 14.Qxe6?! Qxe6 15.Rxe6 Nb6 16.Rxc6 Nbd5 intending ...Bc8-d7 when we see Black's idea in full bloom.

If in the above line we see the following: 11...a5 12.Re1 a4 13.Bf5 (as in the game) 13...exf5 14.Rxe7 Bxe7 Black is in great shape. He is about to coordinate his pieces and he has a material advantage.

These lines demonstrate how Deep Blue could easily go wrong. Its highest priorities are to win material. In both cases Deep Blue is doing what it is told (Don't forget, it was told to sacrifice a Knight!) and winning material. If the result is that Deep Blue gets a bad game that is just the way it goes.

The real bad news about the text is that it tells Deep Blue exactly

what to do, open up the queenside. Computers are very conscious about moving pawns forward, controlling space and activating pieces.

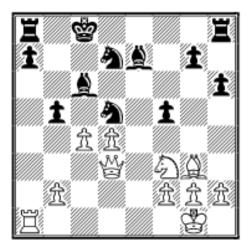
12.a4!

Simple for Deep Blue and a powerful move. The computer tells itself that advancing pawns are good. White's a1-Rook is activated without moving and that the shield around Black's King is compromised by the text. All reasons enough to make this move.

12...Bb7 13.Re1 Nd5 14.Bg3 Kc8 15.axb5 cxb5 16.Qd3 Bc6?

Played without any understanding for the position. Garry misses a devastating shot which finishes the game fast. He had to play 16...Qb4 17.Rxe6 Be7 and hope. Garry was busily shaking his head in disgust and looking into the few persons in the audience. He was looking towards his mother as if to say I want to resign. Should I? Not a happy Mother's Day present.

17.Bf5! exf5 18.Rxe7 Bxe7 19.c4 1-0



Doing what computers do best, calculate tactics. As 19...bxc4 20.Qxc4 Kb7 21.Qa6 is Checkmate, Kasparov was forced to realize that his whole plan of controlling the d5-square simply fails. His alternative 19...Nb4 20.Qxf5 Rf8 21.Qe6 bxc4 22.Ne5 is also good for White. Still, Kasparov's resignation was premature to

say the least. I had expected Kasparov to dig in his heels and fight. But he had no fighting spirit and simply gave up.

Following his resignation there was a sudden and complete emptiness in the spirit of the people in the auditorium. All the buildup up in tensions had been sucked out as if in a vacuum. We were all in disbelief and shock. IBM had done it. They had created a computer program that defeated the world's highest rated human. It was a watershed event and an extraordinary moment in time. Kasparov seemed utterly dazed.

Press Conference:

Garry appeared in the press center shortly after the last game had finished so disastrously for him. He took his seat next to IBM team leader C.J. Tan and looked grimly up into the air till it was his time to speak. Monty Newborn tried to introduce Kasparov's team but Garry stopped him: "My team doesn't need to be recognized. Deep Blue's team does."

C.J. Tan thanked Garry, "A brave man to participate in this great experiment." C.J. Tan continued, "The computer played grandmasterly chess. Where do go from here? We will continue to work with Garry but perhaps on a less competitive level." Garry's response: "The competition has just started."

Garry started off with: "I have to apologize for the performance today. The match was lost by the World Champion with very good reason." Garry elaborated on the loss of the match, that game two had been crucial. "It was beyond my understanding the moves Deep Blue played. It plays a move like Be4 but misses Qb6. All the print-outs of game 1 - 6 should be published. I have no idea what was happening behind the curtains. I'm ashamed I lost this match, since the machine had too many weaknesses. I want to understand how Deep Blue won the match. I want to look at the print-outs. The computer still has generic problems and the way to prove that this was not a single event - that the computer has a great mind, is for Deep Blue to enter competitive chess. Make IBM a player not a sponsor."

Garry was asked if he was suggesting that IBM had been cheating on him. He replied: "I'm suggesting, many things happened well beyond my understanding and it should be tested on other machines to see if they show up with the same kind of answers."

Garry about game 6: "The best player in the world cracked down under pressure. After the computer takes on e6 (8.Nxe6), I can resign. I didn't feel like playing. I'm human. What happened in the previous games was beyond my understanding and I was scared."

Garry won't mind to play another match against Deep Blue but one of the conditions he already stated is: "Only when IBM is not the sponsor. There is no room for friendly relations and nice talks. That was one of my mistakes in this match." IBM might be unhappy with this statement. It put up a wonderful match. The playing conditions looked excellent. The audience had a great time and the 300 journalists were well taken care of. The staff tried to accommodate any request and last but not least IBM did put up a great prize fund of \$1,100,000. Garry's heart might be hurt, but it was a great success for science and because of that men will be better off.

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