A DETAILED ANALYSIS OF AN IMPORTANT CHESS GAME: REVISITING 'MAROCZY VERSUS KORCHNOI'

by VERNON M. NEPPE

ABSTRACT

The author carried out a detailed computer simulation and his own analysis of the 1985—1993 chess game between two leading chess 'grandmasters' (the allegedly discarnate Geza Maroczy vs. Victor Korchnoi). Overall, it appears that 'Maroczy' played at Master or very disputably low rusty grandmaster level, and this was possibly equivalent to his standard of play while alive; the winner, Korchnoi, played at the level of an accomplished grandmaster. Because of major stylistic differences, the computer could not have simulated the game, nor could many living chess players play at this high a level. Early outside validation (news media, analysis by an expert player) militate against fraudulent collaboration. In this instance, superpsi appears to be a less parsimonious hypothesis than survival, as superpsi would require the active cogitation of a master chess player or players while alive, extended over a prolonged period of time, with forty-seven appropriate responses. Fraud would be extremely difficult to perpetrate and would require multiple collaboration. This case involves a possibly unique combination of the controlled application of a skill with provision of data. In this case, as reported by Eisenbeiss and Hassler (2006), chess at a very high level was combined with detailed biographical information, the confirmation of the correctness of which was very difficult to locate. This may be one of the most remarkable cases to give evidence for survival of an intelligent component of human existence after bodily death.

BACKGROUND

Rarely in the annals of survival research does one encounter a case so special that intensive analysis is apposite. One class of such cases involves the communication of special skills that are not easily replicable. Instances of responsive xenoglossy or of remarkable musical composition would be examples. So would a chess game played by a leading grandmaster, as described recently by Eisenbeiss and Hassler (2006).

The game in question was contested between the alleged *Geza Maroczy* (deceased),[1] in his lifetime a leading early-twentieth-century grandmaster, and one of the world's leading chess players of the latter part of the twentieth century, Victor Korchnoi (living). A possibly unique feature of this case is what I call the 'skills—data dichotomy', the combination of authenticated data being available in addition to skills which can be subjected to a controlled evaluation.

Original Source Validation of Data and Chess Skills

This very well documented and important case provokes dilemmas because it argues for the survival hypothesis, exhibiting extended after-death communication, continued use

---

[1] For convenience, the allegedly deceased communicator *Geza Maroczy* is referred to in this article in italics—in no way is this meant to purport that this is Maroczy himself. When historical or stylistic data about the living Maroczy is referred to, 'Maroczy' is not italicized.

of high-level skills (chess) after death and responsive communication of well-authenticated biographical data and intriguing information (sometimes hitherto unknown or apparently incorrect until very carefully researched). Eisenbeiss and Hassler (2006) provide remarkable authenticated details about the alleged communicator, *Maroczy*, and point out apparent inconsistencies which ultimately support the hypothesis that they were not merely fabricating data from known sources. Having discussed this case at length with both Dr Wolfgang Eisenbeiss and Dipl.-Ing. Dieter Hassler, I believe that they have applied a rational and careful scientific approach, and that their integrity in this case is above reproach.

However, Survival Research is more demanding than that. The hypothesis of fraud must always be considered. I believe this hypothesis would be more easily nullified if it could be demonstrated that several people were in possession of different elements of the critical information of this case in the late 1980s, when computers were not that advanced; this is particularly applicable to the chess game, as this is the key skill being judged. Early outside validation is also important to some degree to eliminate the possibility that information had been derived from the Internet and to show that the medium's answers to questioning had not been changed at a later point.

Contemporary outside sources (reporting, *inter alia*, who was told of what chess moves) brought such information into the public domain, and records of it in the days preceding significant advances in skill of chess computers are particularly relevant to countering hypotheses that the game was fabricated using a chess computer. In that regard, the publication of information in the media from 1987 to 1992 can be seen as a definite plus. So can the outside examination of the game by the Swiss chess champion in 1987, because by this time the essential part of the game—up to move 27—had been played.

Chess Computers Today, Human Analyses and Skill Subset Analyses

Chess computers have made enormous strides in the past decade, to the extent that the world chess champion at the time, and the highest ranked chess player ever (ELO 2851), Garry Kasparov, lost to a computer, after the latter (Deep Blue) had been fed every available piece of information on him, including every game he had played ("Deep Blue wins", 1997). This followed a match in 1996 that was won 4—2 by Kasparov. Kasparov was quoted as saying that it was as if he was playing himself, and in order to win he had first to deviate from the computer's expectations and therefore play inferiorly, avoiding his own best move. Moreover, this computer was examining billions of tactical variations per second. But even with Deep Blue, there were grandmaster advisers—Kasparov played against more than just a computer.

Using such a computer with all Maroczy's information built in would cost a fortune, yet still probably fail to answer our question as to the basic level of play that *Maroczy* exhibited. Nevertheless, lesser chess computer programs are useful, in making available a computer-analysed chess game, which is easier to assess in this regard than the subjectivity of human frailties. However, we should bear in mind that the computer here is just one component of the analysis. Particularly at its probable level of high expert/low master, a computer interpreting the moves will have significant limitations, as it will fail to appreciate the fine niceties of strategy, the overall perspective, the psychological intricacies of play and the complete entity that results from the artistic creativity we call chess. Whereas computers are very good at tactical plays that can be

calculated directly, the human brain generally does much better when it comes to sacrificial play and the appreciation of positional advantage in compensation for material deficit.

The quality of a chess game itself could argue even more cogently for survival than the authentication of the large and diverse amounts of information that was communicated, because skills may be less vulnerable to superpsi hypotheses than data. But the specific supporting information reported in this case itself provides truly remarkable evidential evidence for some means of communication. Thus the combination is synergistic.

In this paper, I evaluate the skills component of the actual game recorded by Eisenbeiss and Hassler (2006). These authors discussed detailed biographical data relating to *Maroczy* but presented the moves of this long-drawn-out, remarkable chess game with little commentary. It was played between 15 June 1985 and 11 February 1993, but the first 27 moves, comprising the key part of the game, had been made by March 1987. The game deserved detailed expert analysis, which had not previously been undertaken. This, therefore, serves as the skills side of the skills-data dichotomy.

HYPOTHESES

The key questions to consider are: -

1. Could a chess computer reproduce this game? Specifically, could a computer at that time replicate such play?

2. At what level did *Maroczy* play the chess game? Specifically, how accurately can we rank *Maroczy*? I set a level of play for *Maroczy* as at least Master level (given his ostensible claimed rustiness, lack of 'practice', the presumed unavailability of a chessboard (!!), and chess theory differences, I do not believe grandmaster standard would be an appropriate measure.)

3. Were there any stylistic or other theoretical pointers of relevance in the game?

4. Was the *Maroczy* style something that a computer could replicate?

METHODOLOGY AND KEY SPECIFIC BACKGROUND

The game was analyzed in detail by comparing the moves with those of a computer that played at approximately low Master level. The generated scores for the moves of the players and those suggested by the computer were compared and ranked for superiority, equality or inferiority. The author assiduously consulted with an outside independent International Chess Master, Leon Pliester, validating ideas, correcting obvious errors of computer judgement and move rankings, and assessing stylistic aspects of the play.

Maroczy

Geza Maroczy (1870-1951) a Hungarian Grandmaster, was one of the strongest players of the early 20th century. His style was positional, and he was a remarkable endgame player. By about 1905, Maroczy had become Emanuel Lasker's main rival for the world chess championship. In 1909, he wrote a book on Paul Morphy (in German). Thereafter,

he started to play competitively less often and by the 1920s his standard of play was not so highly esteemed. He also lived in the Netherlands, England and the USA before returning to Hungary in 1927. He served as controller for the world championship (the Alekhine-Euwe matches of 1935 and 1937).

Korchnoi

Maroczy's opponent was the living Victor (Viktor) Korchnoi (1931-), a Soviet player who defected to the Netherlands in 1976, and soon moved to Switzerland. (He felt discriminated against by the Soviet Chess Federation in favour of his major rival for the world title at that time, Anatoly Karpov.) Korchnoi, the current World Senior Chess Champion, was a three-times challenger for the World Chess Championship, four times the USSR chess champion, twice winner of the Interzonal Tournaments, the winner of two Candidates Tournaments and a five-times European champion. He was legitimately the No. 2 player in the world for more than a decade.

Rankings and Real Standards Compared With Today

Elo (1978) ranked 476 chess players historically over a five-year period. At the time he did this, Maroczy was ranked 29th all time, with Korchnoi 13th. Elsewhere, Keene and Divinsky (1989) regard Korchnoi as 7th all-time. All other things being equal, such as both players being up to date with opening theory, and having equal knowledge of chess theory, and both living, we would therefore theoretically have expected Korchnoi to have beaten Maroczy in a close and lengthy match (involving many games). However, if Korchnoi had access to today's modern technology and the profound advantage of current chess theory, and Maroczy only the knowledge available in the first half of the twentieth century, the result would probably have been overwhelmingly in favour of Korchnoi. Nevertheless, the result of any individual chess game cannot be predicted, as the logical outcome is a draw. These rankings apply to 'over-the-board' chess, but the actual game was played as a prolonged 'correspondence chess' match. Moreover, given detailed re-analyses by grandmaster mathematician Dr John Nunn (1999) of average standards in leading tournaments of a century ago, the legitimate top players of the 1910 era might arguably play only at master level or lower today. This finding would suggest that today possibly hundreds or even thousands of players could mimic this individual Maroczy game. Consequently, it becomes particularly relevant not only to evaluate the differences from the chosen computer's moves, but also to examine the qualitative and stylistic components.

Rollans

The 'medium' for this match, Robert Rollans (1914-1993) recorded *Maroczy*'s moves by means of automatic writing. Initially he had no knowledge of chess, but he was taught rudimentary aspects during the match. Because much of the separate data validating *Maroczy* was in Hungarian, it should be noted that Rollans ostensibly knew just a little basic Hungarian (Eisenbeiss & Hassler, 2006).

Eisenbeiss

The controller of moves between the players, Dr Wolfgang Eisenbeiss, is a Swiss stockbroker and financial analyst, an author and a doctor of economics (1965), with

forty years' experience in survival research. He plays club amateur chess (current ranking 1960 ELO), not against computers, but clearly at insufficient standard to mimic *Maroczy*. He has never played White against the French Defence. And he does not speak any Hungarian.

Neppe

I express an opinion on this game here only because no one else more qualified has done so. I had vainly hoped that a former world chess champion who had been approached would comment on it. Consequently, it is with full awareness of my own inadequacies, and the knowledge that inferior players such as myself can seldom even conceive of the depth and profundity of play of world-ranked players, that I venture an opinion below. However, because of this, the question must be answered as to my qualification even to express an opinion. In this regard, I almost invariably beat the computer at the level set for this evaluation of the Maroczy-Korchnoi game. (I have many games available so can establish that I have beaten different chess computers of a similar playing standard literally thousands of times, over many years). This implies that I have been playing informally at possibly high expert or low master level. All in all, I have maintained a major interest in chess, its theory and analyses, for four decades. I gave up competitive chess more than thirty years ago, as a chess champion whose game was highly respected in my native South Africa. I had given an exhibition playing simultaneously against more that fifty club players; I had also played blindfold simultaneously against several players; and I had lectured on the Fischer-Spassky world championship series. I had sufficient interest in chess administration to be fortunate enough to have organized the first multi-racial sports (if chess is a sport) match in South Africa (circa 1970). I am not trying to be presumptive in even making judgements here, however: I am trying to provide a fair balance in the absence of anyone superior to perform this critically important task. I would gladly welcome further critiques from a higher-ranking, impartial chess theorist.

Computer

The computer used in this analysis was the program Sigma Chess 6.0 for the Macintosh using OSX 10.4.8 on a 1.67 GHz PowerPC G4 with 1.5GB RAM. The program was set in normal playing mode, with non-deterministic, permanent brain styles. Technically it was given ample pause times, allowing it in actuality several hours to contemplate moves, although its setting was 0.05 Fischer clock for all moves. I have found this to be an adequate way for the computer to play at chess expert level, and when left to contemplate it may reach the national or international master level. Much more powerful computers and settings could be used; however, I believe that this computer is sufficient for the purpose of an adequate analysis of the above game, as we are attempting to evaluate the adequacy of *Maroczy*'s play beyond the level of almost any non-championship player. Clearly, the computer chosen was probably reflecting play limited to a high expert or low master level, the lowest level to be tested on Maroczy's play. An extraordinarily powerful computer could be used instead, but it would not simulate the reality of testing expert vs. master vs. low-level grandmaster play. A stronger program could have measured more competitive parameters, but these would be disadvantageous here because the attempt is to demonstrate that only a few could have simulated this game, and making the criteria too stringent might result in a comparison between only the leading grandmasters in the world.

Korchnoi effectively served as an excellent comparison standard for *Maroczy* as regards the quality of the computer's arbitration, using the judgement that he is much, much better than a computer that is probably playing at high expert/low master level.

Opening Theory

For chess opening theory, to obtain an index of knowledge after Maroczy's death, I used an old version of *Modern Chess Openings (MCO)* so as to get an impression of what opening knowledge was like prior to this game but after Maroczy's death—1965 being a little less than midway between these two time periods). I also referred to the later chess opening theory of the 1980s as well as modern computers.

RESULTS

Game Summary and Perspective

I provide here a summary of the game, the moves of which are reproduced below. The opening moves follow what in chess is called the French Defence, and the sub-opening is the Winawer variation and the sub-variation of that is the Smyslov variation.

1.	e4	e6	19.	Qe4	Qxe4+	37.	Rf5+	Kxg4
2.	d4	d5	20.	fxe4	f6	38.	h6	b3
3.	Nc3	Bb4	21.	Rad1	e5	39.	h7	Ra8
4.	e5	c5	22.	Rd3	Kf7	40.	cxb3	Rh8
5.	a3	Bxc3+	23.	Rg3	Rg6	41.	Rxf6	Rxh7
6.	bxc3	Ne7	24.	Rhg1	Rag8	42.	Rg6+	Kf4
7.	Qg4	cxd4	25.	a4	Rxg3	43.	Rf6+	Kg3
8.	Qxg7	Rg8	26.	fxg3	b6	44.	Rf1	Rh2
9.	Qxh7	Qc7	27.	h4	a6	45.	Rd1	Kf3
10.	Kd1	dxc3	28.	g4	b5	46.	Rf1+	Rf2
11.	Nf3	Nbc6	29.	axb5	axb5	47.	Rxf2+	Kxf2
12.	Bb5	Bd7	30.	Kd3	Kg6		White	(*Maróczy*)
13.	Bxc6	Bxc6	31.	Rf1	Rh8		resigns, as: –	
14.	Bg5	d4	32.	Rh1	Rh7			
15.	Bxe7	Kxe7	33.	Ke2	Ra7	48.	b4	c2
16.	Qh4+	Ke8	34.	Kd3	Ra2	49.	Kxc2	Ke2
17.	Ke2	Bxf3+	35.	Rf1	b4	50.	b5	d3+
18.	gxf3	Qxe5+	36.	h5+	Kg5	51.	Kc3	d2
						52.	b6	d1=Q

White's seventh move, Qg4, is an old variation (from about the mid-1980s to the 1950s) and therefore known in Maroczy's time; it is fitting and supporting the style of Maroczy (who was historically regarded as a great user of his queen in both middle- and endgames). It was well referenced by the (1935-1937) World Champion, Max Euwe (1901-1981). Although it was largely out of fashion at the time of Maroczy's death, it has been used occasionally up to the present day, even by world champions, and also by

Korchnoi himself. It is an active play that is double-edged and gives opportunities to both sides. Modern chess opening theory looks askance at such moves, where best play forces White to struggle for equality.
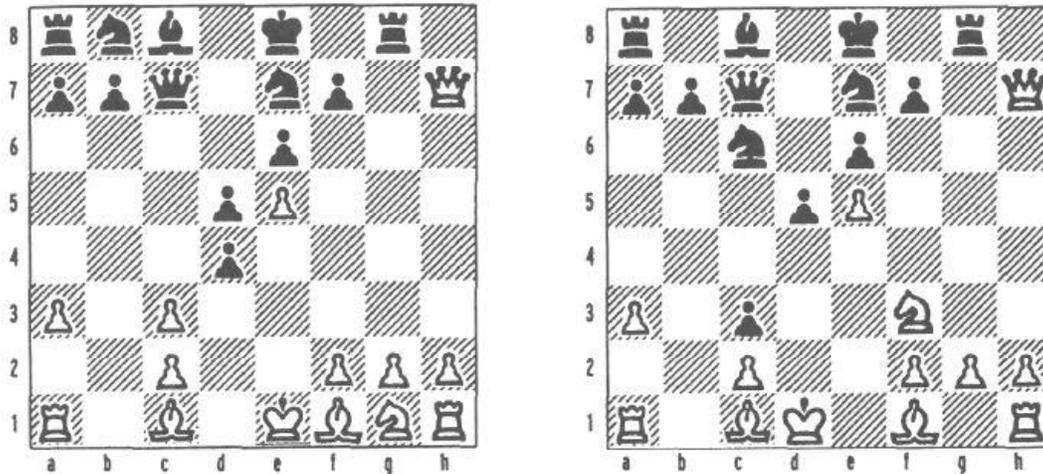

Figure 1. Positions before White's 10th move (left), and his 12th move (right).

The (disputable) two key errors in the game are historically relevant. On *Maroczy*'s tenth move, he moved his king, Kdl (the computer suggested Qd3 and another alternative it came up with is Ne2, both listed in opening theory) and he followed up with a *non-sequitur* move that added nothing to his game, Bb5 (the computer, through various renderings, had settled on Qh5, though it had also suggested on other analyses both Ng5 and Bd3, all of which it scores slightly advantageously for White). By contrast, *Maroczy*'s moves, taken together, are hard to justify in the modern day; they shape the whole game and lead to the loss. His tenth move is still found in later major theoretical books on chess (e.g. Evans & Korn, 1965, p. 155, column 45). However, *Maroczy*'s twelfth move is apparently a poor attempt at simplification towards a draw by exchanging material. Korchnoi took major advantage of the *Maroczy* 10th and 12th moves in the manner a great grandmaster would, with an opening innovation of dxc3, and he continued to achieve a significant advantage with his follow-up moves (discussed in the Table 2 commentary below).

From that point (move 13) on, *Maroczy*, in my opinion, plays perfect chess and no moves can be seriously criticized (the nature of chess is to find suitable alternatives; there is not just one perfect move; but at no point are his moves regarded by the author as definitely inferior). Even move 47, though not the best, was played in a position completely resignable amongst grandmasters (*Maroczy* resigned after move 47; some would have done so after move 45).

Also *Maroczy* played human-type moves, and the computer simulation played computer-type moves correcting what it thought were inferior moves (e.g. in moves 23 and 24) despite their illogicality. *Maroczy* clearly played the endgame far better than the computer, which might have been expected. This is not only because of Maroczy's known endgame versatility, but because the wide number of choices a computer has in a chess endgame give it too many alternatives; humans understand chess strategy better than computers and can thrive on the logic required.

Computer Limitations

The computer was unjustifiably critical at times of the play of both Korchnoi and *Maroczy*. In fact, from the time there was the deviation from opening theory (move 11), to the time *Maroczy* could potentially resign at move 45, the computer deemed Korchnoi to have played an inferior move four times (see Table 1, showing minuses in the computer decision column) against five times for *Maroczy*. But the VN (Vernon Neppe) final arbitration decision on Korchnoi's play indicates that none of those moves was inferior: instead, the computer may not have had sufficiently deep or strategic knowledge to understand that two of those moves were actually even superior to its own suggestion. Similarly, with *Maroczy*, in four of the five instances, the VN final arbitration decision was that the move was equal and not inferior (the exception being move 12). The computer also indicated on eight occasions that the move Korchnoi found was superior to its own and I agree with it there. For *Maroczy*, the computer made that judgment four times; in two cases I agree, but regard the other two as possibly only being equal.

Human Opinions During the Game of the Level of Play

It is interesting that despite the computer perceiving Black to be in a strong position after move 27 (ranking 0.96, which is almost a Pawn equivalent), Korchnoi still had his doubts ("I am not sure now, whether I am able to win the game"—written to Wolfgang Eisenbeiss on 13 March 1987). This illustrates not only *Maroczy*'s competitiveness in a difficult position but also how the greater part of the game had been played by that stage. This is important, as Dr Eisenbeiss indicates that the former Swiss Champion, Heinz Wirthensohn, was also involved in the analysis at move 27 (in the late summer of 1986). He did not know the circumstances of the game but was just given it blind. Thus a further excellent outside arbitrator was drawn into the early part of this investigation. Wirthensohn also felt the game had 'drawish' possibilities after move 18. In retrospect, it is clear that the game was not a draw at that point: White (*Maroczy*) was in a difficult position, and Korchnoi the great grandmaster was able to win it. However, at least this shows once more that it is appropriate to regard *Maroczy* as competing at no lower than master or low grandmaster level. Another outsider who was in a position to validate the game moves at that early stage was Petra Leeuwerik, later (1991) Korchnoi's wife, who was involved enough with chess to have been Korchnoi's manager.

Human refereeing

There were times when moves by both players were assessed by my refereeing to be superior, yet the computer could not detect this. One reason Korchnoi may have had more 'better' moves was probably because he was winning on account of his superior opening theory, and when players are losing it is difficult to decide what the best move is, because they may lose whatever they do. This is why I looked for an adequate control game by Maroczy in which he lost, as discussed below.

At times, even though I judged certain moves as being of grandmaster standard, the computer was able to generate the same moves after prolonged thinking. For example, White's move 36, h5+, may appear simple, but because of the depth of analysis required it is actually at a high level. However, given that the computer found it (albeit not

necessarily with *Maroczy*'s depth of understanding, as a weak player could play the move, which, superficially, looks obvious), I shall make no further comment on these moves. It is interesting, however, that when I allowed the computer to play the game a second and third time, giving it far more time to 'think' about moves, it came up, not unexpectedly, with occasional improvements. This was one of them.

Overall Summary

Table 1

Overall Results	Maroczy	Korchnoi
Computer Gap score	-7 to -5	7
VN Referee Gap score based on human logic	3	14
Corrected Gap Computer score (moves 11-45)	-4	5
Corrected Gap VN score (moves 11-45)	5	12
Ordinal computer corrected score (moves 11—45)	-2	5
Ordinal VN corrected score (moves 11—45)	5	12

An overall summary of the results is presented in Table 1. There are two ways of assigning numerical values to compare moves made by the players with those selected by the computer. The first, which we could call the 'gap' score, assesses how much the moves differ: E (or 0) refers to moves of equal merit; 1 reflects a slightly better move than the computer; -1 reflects a slightly inferior move; 2 and -2 indicate substantially better or inferior moves; and 3s are overwhelming. A simpler method is what I call the 'ordinal' score, marking only +1, 0, or —1 for whether a given move is better, the same or worse, respectively.[2]

I have separated the scoring into two: firstly, including all the moves; and secondly, considering just the more relevant moves; in other words, excluding those dependent on opening theory (moves 1 to 10), and not scoring beyond move 45, on the grounds that it is illogical to do so, since White could resign at this point. These 'corrected' gap scores would appear to be the more legitimate ones to use in judging Maroczy's standard. This simple table puts the results clearly into perspective.

Based on Table 1, and taking human logic into account, it can be seen that: Maroczy is much better than this computer; Korchnoi absolutely overwhelms this computer, although, using just the faulty computer logic, Maroczy does not quite match up to the computer. However, in my commentary on these moves I argue that it is not Maroczy who is at fault here, but the limitations of the computer's perception.

The Moves in Detail

How *Maroczy* (M) and Korchnoi (K) differed from the computer move by move is tabulated in detail in Table 2, with amplifying notes. Only where the computer's moves differed from those of *Maroczy* or Korchnoi are they tabulated, with detailed commentary. Effectively, the process involved the computer playing every move individually and my then comparing the computer's choice with the selection made by

---

[2] The ordinal scores do not therefore judge the extent of the difference between the computer's and the player's move; they simply record that potentially it was enough to have an impact on the game.

Maroczy or Korchnoi. The relative merits of the different choices as assessed by the computer (C Dec) and myself (VN Dec) are displayed in the corresponding columns.[3]

If the moves of the computer and the players were the same, there is clearly no need for me to comment. If they were different, I have annotated each move. So we have columns for the Move number, for *Maroczy*'s or Korchnoi's choice, the computer's choice, and then for the state of the game as calculated by the computer either after *Maroczy*'s or Korchnoi's move, as applicable, or following its own move. (These indicate how much Korchnoi was winning by at that point, a score of 1.0 being approximately equal to a pawn advantage.[4] So the lower the score in *Maroczy*'s column, or the higher the one in Korchnoi's, the better is the position for Korchnoi.)

Corrected scores represent judgements on the actual play after the opening, which depends on book theory precedents, and before move 45, when *Maroczy* could have resigned. Letters in the final column refer the reader to comments in the notes.

Table 2
Computer (C) Analysis of M versus K and Referees' Comments (Ref.)
(a) White's Moves (Maroczy)

Move No.	M's move	C's move	G-ranked M move	C-ranked C move	C DEC	VN DEC	Ref.
7	Qg4	f4 or a4	E; book	E; book	E; book	E; book	
8	Qxg7	cxd4	E; book	E; book	E; book	E; book	B
10	Kd1	Qd3	0.30	E; book	-1 to E	-1	C
11	Nf3	f4	0.16	0.26	1	E	
12	Bb5	Qh5	1.06	-0.-10	-2 to -1	-1	E
11	Bg5	Ng5	0.72	0-11	-1	E	G
16	Qh4+	Qh3	0.53	0.38	-1	E	
17	Ke2	Qa3	1.71	1.22	-2 to -1	E	H
18	gxf3	Kxf3	1.9 1	2.30	1	E	G
21	Rad1	h4	1.07	1.19	E	V,	G
22	Rd3	Rbl	1.38	1.25	E	1	J
23	Rg3	Rh3	1.43	1.52	E	E	
25	a4	H4	1.46	1.55	E	1	
30	Kd3	Rf1	0.81	0.00	-1	E	
31	Rf1	Ke2	0.79	0.85	E	1	K
34	Kd3	Rf1	0.79	0.88	1	1	
37	Rf5+	h6	1.09	1.05	E	1	G
44	Rf1	b4	2.91	3.07	E	1	
45	Rd1	Rg1+	3.23	3.52	E	E	L

---

[3] When the table says, for example, -1 to E, this indicates that the scoring needs modification. Thus -1 to E reflects an absolute -1, but allowing for opening theory being less developed at the time of Maroczy's death it could be regarded as equal; similarly -2 to 1 recognizes attempts to introduce complications in a resignable position.

[4] This would indicate a probable win for Korchnoi; 2 would be a significant difference; 3 or more one so large that it would not be worth playing on. A tangible difference, based on experience with this computer program and relevance in chess, is 20%, with a minimum of 0.1 between the two scores.

Maroczy differed from the computer 23 times, and 16 times during moves 11-45; Korchnoi 20 times, and like Maroczy, 16 times during moves 11—45. These differences are the result of dissimilarity between humans and computers and make it unlikely that this game is just a computer simulation.

| 47 | Rf2 | Rd1 | 11.28 | 4.65 | -2 to -1 | -1 | M, N |

Notes (letters relate to the comments column, headed Ref.)

A More aggressive style.

B Wild. More typical of Maroczy historically, who favoured Queen ventures like this.

C One main line that gives White almost equality in this opening is that of Schmid-Corall, Lucerne 1963, which *MCO* ranks = after 16 moves (*MCO* Note q, p. 173, to Column 44, p. 155). The moves run: 9. Qxh7 Qc7 (as per the game) 10. Ne2 Nbc6 11.f4Bd7 12.Qd3dxc3 13.Rb1Rc8 14. h4 Bf5 15. Rh3 d4 = though the computer still, correctly in my opinion, ranks Black as slightly better (0.15), implying that White's whole line of the Q venture (which stylistically would probably not be encountered much today in grandmaster play), is a little suspect; but it was common in Maroczy's later days and actually reflected his style. In this instance the computer scored 0.30 different from before.

D The key deviating move at this point is Korchnoi's 10th move, dxc3, the (disputed) 'refutation' of this line, though the computer's move also wins. The rankings of -1 and -2 for *Maroczy*'s move would be based on today's knowledge of chess theory. The computer suggested 10. ... Nd7 and play based on chess theory would then run: 11. Nf3 Nxe5 12. Bf4 Qxc3 13. Nxe5 Qxal+ 14. Bc1 Rf8 15. Bb5+ Nc6 16. Rel a6 17. Ba4 d3 and MCO assessment is a +, meaning Black has an overwhelming game (the computer scores it 1.78), as per the game Paoli-Schmid, Venice 1953. Clearly *Maroczy* is in better shape after 16 moves compared with Paoli. Korchnoi's move reflects his active, complicating style.

(b) Black's Moves (Korchnoi)

Move No.	K's move	C's move	C-ranked K move	C-ranked C move	C DEC	VN DEC	Ref.
7	cxd4	Ng6	E; book	E; book	E; book	E;book	
10	dxc3	Nd7	0.24	book	E	1	
12	Bd7	Rg2	0.43	1.01	-1	E	A
19	Qxe4+	Qb5	1.79	2.35	-1	E	D
20	f6	f5	1.20	0.99	1	1	F
23	Rg6	Rxg3	1.11	1 74	-1	1	I
24	Rag8	Rxg3	1.57	1.70	-1	1	J
26	b6	Ra8	1.07	1.08	E	E	I
27	a6	Ke6	0.96	0.74	1	1	I
28	b5	Kg6	0.81	0.60	1	1	
31	Rh8	Kf7	0.85	0,82	E	1	
33	Ra7	B4	0.84	0.72	1	1	
34	Ra2	Rb7	0.96	0.80	1	1	J
35	b4	Ra7	0.91	0.79	1	1	
38	b3	Ra1	1.50	1.08	1	1	
42	Kf3	Kf4	2.71	2.24	l	1	K
43	Kg3	Kg2	2.78	2.40	1	1	
45	Kf3	Rh3	3.75	3.82	E	E	
46	Rf2	Kg4	4.12	2.44	2	1	

E With the computer's White Move 12. Qh5, the computer score is —0.40, indicating that White was at an advantage; the computer decision reflecting *Maroczy*'s poor move of Bb5, with -2 to show a severe difference, although realistically the position was probably not as bad as that. For the record, this is regarded by the computer as the losing move. Yet, the computer, 'illogically' playing out its 12. Qh5 move, quickly changed its stance over the next few moves, and within 4 moves again ranked Black as winning. 12. Qh5 yields a typical computer variation of 12 ... Qb6 13. Ke1 (illogical, based on move 10) Bd7 14. Rg1 Nf5 15. qh7 Nce7 16. Bd3 Rg7 17. Qh8+ Rg8 18. Qh7 Nd4, with 0.05, so minimally favouring Black. In another variation, it played out and demonstrated that Black was winning by 1.0 four moves later. In any event, White's 12th move is certainly inferior, and overly conservative, which, given the early strategy, was certainly a move that was inconsistent. One earlier suggestion by the computer (running on less time) was Ng5, which may be significantly better.

F The alternative (Qb6: 0.29) leads to a wild game, and though the computer sees it as logical a deeper analysis makes this issue uncertain.

G An equal option both ways, with advantages and disadvantages.

H A very non-computer but logical human move; the computer judges inferiority.

I The human sees simplification as logical here-understanding strategy better than the computer!

J Move f5 is illogical and Rabl illogical but would have been logical the move before (Korchnoi's 21. Rab1 is correct).

K Humans play endgames better than computers because there are more choices.

L The game is lost and resignable at this and subsequent points.

M Illogical computer repetition.

N Rather meaningless to estimate which is the better losing move. However, the computer objectifies this, while the human tries to find something to produce more complications.

DISCUSSION

Important Theoretical General Issues Concerning the Game

First, the distinguishing quality of the game is *not* its length—that *Maroczy* lasted 47 moves against Korchnoi does not make him a grandmaster. Indeed, earlier resignation is a characteristic of the expert player, and *Maroczy* in fact could have resigned appropriately at any time from move 45. It is the quality of play, not the quantity of moves. And a win is a win in chess. Sometimes one grinds on to an inevitable result by working to gain a pawn and then nursing that for sixty moves, exchanging pieces to the ending; or sometimes we win on move 75, but the win was decided on move 15 and the rest was technique. A brilliant conception may lead to that pawn advantage or even

something more slender; yet another may force immediate resignation because the queen has been trapped in the middle of the board. All can be outstanding works of art.

Second, another major confounding factor is the multi-year length of this game. There is no parallel for calculating strength of play based on a game lasting from 1985 to 1993. The unity of the artistry is potentially compromised, and the quality of play could (as I believe) be argued to be worse, although some would say that it might be better because the players would have more chance to establish perfection. But this would presuppose the players devoting greater amounts of time to the game.

Third, under normal circumstances the great delay between an event and its final scientific publication, 1993 to 2006, would create such difficulties that its credibility would be severely compromised. However, chess is such that games from the 19th century still are as vibrant from their records as if they were played yesterday.

And fourth, clearly there are variations in that one could argue that though this particular computer agreed with Maroczy, this does not mean that better moves could not have been found. However, my mission has been just to offer a critique on a simulated computer analysis, not to suggest new moves (which would have been irrelevant, anyway).

These factors should be borne in mind in my interpretation of information.

Maroczy's Standard of Play

In my opinion, the key move in the game, the tenth, making *Maroczy*'s game difficult, was legitimate at the time of Maroczy's death though very much out of fashion later. Opening theory is the most time-intensive part of chess competition at very high levels, since inferior players can obtain enormous advantage over the more naturally gifted if they have encyclopaedic knowledge of the intricacies of chess openings. This way they can steer their opponents into variations that are significantly inferior. Ironically, I gave up competitive chess after seeing the enormous—sometimes overwhelming—advantage that a detailed knowledge of chess opening theory can provide. I used the word, 'ironically' because this is exactly the portrayal of the *Maroczy*—Korchnoi chess game. Though the extent of move refutation was less profound, move 10 combined with move 12 was enough to lose, with *Maroczy* playing an excellent game thereafter. A player like Korchnoi should be able to grind a win from that position consistently . . . and he did.

Korchnoi was clearly aware of opening theory and may have introduced this line partly because he realized that his alleged communicator would not know that he was aware that 10. Kd1 was very suspect. Korchnoi had told Dr Eisenbeiss that in a book published by Suetin in Russia the fact that he (Korchnoi), had in his opinion actually refuted this line was not acknowledged, because after his defection his influence was ignored in Russia; yet he felt that grandmasters at that time (well after Maroczy's death) would have been routinely aware of how difficult this line was. This 'refutation' had actually been demonstrated in a game two years after Maroczy had died, namely, Paoli-Schmid, Venice 1953. Both Paoli and *Maroczy* had to negotiate the downhill complexities resulting from the move. It is interesting that the computer actually assessed *Maroczy* as in better shape after 16 moves than Paoli (-0.53 vs. —1.20). This could be another measure relevant to *Maroczy*'s standard of play, as it provides a means of direct

comparison over a few moves. Enrico Paoli (1908-2005; http://www.chessbase.com/newsdetail.asp?newsid=2804), a 'grand master *honoris causa*' and later the world's strongest active nonagenarian, won his last Italian championship at age of 60. It is a bizarre coincidence that Eisenbeiss and Hassler (2006) acknowledge the assistance of only two high-ranking chess players, Korchnoi himself and Dr Enrico Paoli. . . and the player with whom *Maroczy* can be compared here most directly is Paoli! The computer ranked *Maroczy* as better after move 16 than Paoli (though both lost), and the Swiss champion, Wirthensohn, substantiated this in his short analysis, indicating drawish possibilities even at move 18 (which the subsequent game showed, however, to be incorrect).

It is significant that the chess computer I was using (and a well-known modern one, Fritz 9) does not even consider *Maroczy*'s 12. Bb5 as a legitimate alternative. This fact is important because it suggests that anyone hoaxing the game is unlikely to have done so with a computer. Yet this 12th move, *Maroczy*'s attempt at possible simplification, could be argued to be in keeping with the living Maroczy's style, although the move was an inappropriate one.

Maroczy and Speculation

An ostensibly legitimate question here would be "why was *Maroczy* not able to obtain information about this 'new' opening variation after his death?" Explanatory hypotheses would abound even assuming that one accepts the discarnate hypothesis. First, even if he did know the variation, he may have been too late learning about it, having already played move 10 by then. Second, and potentially more universally relevant, why should *Maroczy*'s chess development have continued after his death? This would imply a further hypothesis, as would the third question: "why should he have been able to telepathize or psychometrize new advancements?" If *Maroczy* were all-knowing, he would have been aware of all Korchnoi's plans. In fact, were one to generalize and extend this hypothesis to others and take an extreme case, a discarnate who knew nothing about chess should be able to beat the living world champion. But essentially, it is ludicrous to hypothesize that the mere act of dying should actualize even some aspects of supreme powers in anyone and make him or her omniscient, omnipotent or omnipresent.

Perspective of Standard

As can be seen from Table 1, based on ranking scores, *Maroczy*, presumably without a chess set—though Dr Eisenbeiss (e-mail 26/6/2007) has indicated to me that the arrangement was that the medium would have a chess board with the current position set up all the time—played substantially better than the high expert to low master level the computer was playing at. This was not only because the human ratings I allocated were more appropriate, but because the computer sometimes did not even know when its moves were inferior (this applied to Korchnoi's moves as well). *Maroczy* also played in a style reminiscent of the early twentieth century, and demonstrated the endgame expertise he was famous for. I don't think that even today a chess computer would play like that (even if it was of equivalent strength, it would play differently).

Chess Computer Replication as an Alternative Explanation

Because of the length of the game (1985-1993), one might ask whether a computer just processing information continuously could have played then at *Maroczy*'s level? I believe not. The argument that a computer of, say, 1985 vintage, allowed to calculate even for many, many months, could replicate a present-day computer appears fallacious, given that the combinations of processor and clock speeds with added RAM and essentially unlimited hard drive space have increased overall functionality by a magnitude in the billions since then.

Moreover, 1985 software was limited by the available hardware — even if the processing speeds had been identical, it would still not have been able to perform like today's computers. The metaphor of trying to walk to the sun over many years may be apposite. In any event, the differences in style between an accomplished chess player (like a grandmaster) and even the most remarkable computer hardware and software are profound. The computer's grasp of tactics that involve fully calculable sequences would be unequalled, but its application of strategy — long-term planning and subtle conceptualization of minimal advantages in assessing positions—can only be as good as that of its programmers.

Whereas Deep Blue may very disputably have achieved almost a form of humanness in that regard, it was possibly only the combination of ongoing human programming, with this computer's blindingly fast processing and its unequalled knowledge of its opponent, and not its capacity for real cogitation, that defeated Kasparov.

Further Chess-Game-Related Issues

I have pointed out that when a player is in a losing position it is more difficult to judge what his best move might be. This led me to search for a similar losing game by the living Maroczy as an appropriate control. This game could then be subjected to another computer simulation to evaluate *Maroczy*'s standard. The following criteria applied:—

• It would have to be in his later years, i.e. certainly after 1920, when he was past his best.
• I wanted Maroczy to play White in a game that featured the Winawer variation of the French Defence, like this one, losing by positional play in over 40 moves.
• I wanted his opponent to be one of the top five players of his day.
• I realized that I was unlikely to locate a closer replica of this game, where Maroczy as White played 8. Qxg7 in the Winawer variation of the French Defence, and lost because of outright theoretical refutation.

I found games that were partially suitable (e.g. Maroczy—Tartakower, Teplitz-Schonau 1922, Dutch Defence; Maroczy-Bogoljubow, London 1922, Four Knights Defence). However, these games were not French Defence and were not refuted outright on account of outdated chess theory. I have not, therefore, found an appropriate Maroczy 'control' game to subject to the same rigorous computer scoring using the same settings on the same computer program. However, given that *Maroczy*'s rankings as assigned by the computer are significantly modified when the human factor taking all estimates into account is added, this extra control would have been limited.

Cheating by a Master: The Live Human Player Explanation

Could one or more living Chess Masters have been consulted and played some of *Maroczy*'s moves? If only some moves were played by the living Master, the game would probably be uneven in standard and consistency, which it was not. If all the moves had been played by (say) one living chess master, consciously communicating the moves, this would have required a lengthy game, but it could have been possible. However, it is reasonably established that at the outset Rollans the medium was unfamiliar with chess, and at the end of the game he knew the moves only rudimentarily; he had an impeccable reputation for honesty and apparently he did not know any chess masters. Nevertheless, he could theoretically have consulted a chess master: if he had, he would have had to incorporate the move communicated repetitively into his subconscious until it could have emerged in his automatic writing, or to have handwritten the moves via conscious fakery. Such an explanation cannot totally be ruled out, but it seems highly unlikely.

Additionally, the standard beyond the opening was very high, the endgame was compatible with Maroczy's style, and the additional, consistent, factual information revealed through the medium while the game was in progress, combined with the skill shown in the game, make such a massive fraud very unlikely.

Revisiting the Original Data

Finally, although it is not my specific mission, the association of the purported evidential factual data is so relevant to this paper that I must revisit the analysis of biographical data in the Eisenbeiss and Hassler 2006 paper because of some errors. I re-examined the data, wanting to know why *Maroczy* had reported any documented misinformation. I base the information below directly on the lengthy Appendix 2 analysis (pp.84—97), from which the Tables are derived. These corrections overall improve Maroczy's proportion of correct hits even more. He answered 79/81 correct, or 97.5%, for all the authenticated items, with only 2/88, or 2.3%, incorrect. In 7 of the 88, the answers could not be located. These data include the most difficult to retrieve items, in which Maroczy answered 31/31, or 100% correct, when answers were authenticated (in two more items, the answers remained unknown).[5]

---

[5] The errata published by Hassler (2007) are important. However, based on my scoring of the chess results information, I clarify further two further confounding answers to the original data of Eisenbeiss and Hassler (2006). These results delineate an even higher hit score than was previously calculated.

1. Regarding Monte Carlo in 1902 (p. 94), *Maroczy* said "I beat Janowski, Pillsbury, Teichmann, Dr Lasker and others." However, Dr Eisenbeiss posed the question for the historical researchers as (5.2): "What are the names of the first five of that tournament?" As Maroczy listed four elite participants he beat, not who came in the first five, data from Q70-73 should be eliminated from the analysis.

2. Item 74 (p. 96): "What place did Maroczy reach in Monte Carlo in 1903?") was scored as half correct. Maroczy had stated "I was third or second, I don't remember". He came second, so this is a hit, albeit a less definitive one, but it reflects a considered human response ("I don't remember").

With these revisions, of the 88 items in Table 1 (Hassler, 2007) there are now only two incorrect items; namely, Maroczy did not beat Alapin in the 1905 Ostend tournament and Lasker, not Alekhine, won Nuremburg 1896. This puts the overall scoring at 2.3% incorrect (2/88); 89.7% of all answers could be definitively correctly correlated, and no answers were semi-correct. But more cogently, there are 97.5% correct answers for known information [78/80]. In Table 3 (Hassler, 2007) reflecting answers to just the most difficult items to retrieve, *Maroczy*'s answers scored 31 out of 31 correct answers (100%) for data that was authenticated—and, as Hassler (2007) points out, 31/33 (93.9%) when taking into account information that was unknown.

These data are so remarkably accurate as evidence for some means of communication that it accentuates further just a distant spectre of the super-psi or fraud hypotheses. The data alone presented by Eisenbeiss-Hassler (Appendix 2) could, with sufficient imagination and stretching of the concept, be explained via super-ESP with distant unconscious tapping into data (either from others or from what exists in inanimate printed form) or by fraudulent detailed research (this is very unlikely — it would require major conspiracy, involving the librarian, Maroczy's children, Eisenbeiss, plus possibly the media involvement too as it was reported in 1987, and, in fact, a first article appeared in Sonntags-Zeitung in 1986 but centred on the Romih story).

Consequently, the extra data Eisenbeiss and Hassler (2006) report help make these alternative hypotheses far more remote. The stretching for credible super-ESP explanations based on the ostensibly veridical data would be extreme, requiring more than just communication with the subconscious minds of numerous people, but would need to explain why the initially contradictory information cited was not properly appreciated. For example, the authors cite the Menchik, Capablanca, Alekhine and Romi/Romih.[6] (Translation across alphabets and different language pronunciations set up correct but multiple spellings). But far more so, chess-playing skill requires a further profound leap when applying the super-ESP hypothesis — delving into a Master's (or several Masters') *unconscious mind*(s) is insufficient; their *active repeated cogitation* 47 times (as 47 moves) over many years plus the medium obtaining it all by automatic writing. (Actual handwriting analysis of the live Maroczy and of Rollans over the many years of communication would have been interesting though potentially scientifically so diverse in circumstances that it may not have been useful. In any event, this data is unavailable for analysis at this time.)

CONCLUSIONS

1. In summary, in my opinion, *Maroczy* played at least at the Master level, and very debatably and less likely, at a rusty, lowish grandmaster level. This level could not have been achieved by the medium even after great training, assuming the medium was not a chess genius. The difference in the game may have related to opening theory developed in the 1950s after Maroczy had died. *Maroczy* was caught in a chess opening variation that had possibly been refuted after he died. Thereafter he played an excellent game and substantially better than the computer. (At this level, computers lose to strong humans mainly because they cannot think creatively). Korchnoi's play was at the level of an accomplished grandmaster.

2. The standard of play is important because not many living chess players could produce this kind of game.

3. A simulated computer analysis shows that *Maroczy*'s style and many of his moves appear very different from that of the relatively basic chess computer used for the analysis. In short, the alternative hypothesis of fraud by means of a chess computer playing *Maroczy*'s moves is unlikely, particularly given the ostensible time periods of the game. More specifically, it is my opinion that a chess computer could not reproduce

---

[6] The spelling of chess-players' names has always been variable, even that of Victor Korchnoi (e.g. Viktor Kortchnoi or Korchnoy).

this game as of the 1980s. Nor is it likely that it could replicate *Maroczy*'s play even today because of the stylistic elements.

4. The availability of expert outside validators by March 1987 (e.g. the Swiss chess champion, as reported to me by Dr Eisenbeiss), when the bulk of the game had been played, is a distinct plus against any hypothesis of fraudulent collaboration. This is a key to proving the chess aspect of this case. The provision of outside evidence early on and the involvement of the news media in that regard is a definite plus.

5. I am certainly intrigued by the standard of *Maroczy* and the sustained communication over time. Because the standard is far higher than any nonmaster chess player could produce, the game alone is strongly evidential.

Whereas super-ESP has been used as an explanation for anything and everything, it would require the repeated and active cogitation of a master chess player or players while alive, extended over a prolonged period of time with 47 relevant responses (47 moves in the game), for this to be an explanation. Merely divining this information from the Master's unconscious would not work, as the responses would require active intervention. The medium would need to be able to record the moves by automatic writing. I therefore regard super-ESP as a far less parsimonious explanatory hypothesis for this game than the hypothesis of survival after death with extended intelligent communication in this instance. Geza Maroczy could indeed have been in some way responsible for this game.

6. I combine the above chess-related findings with the added data. I take into account the remarkable supportive biographical data, some of which, as explained by Eisenbeiss and Hassler, was not initially available. Moreover, they pointed out that some information was initially contradictory yet later justified. The combination of the skill of the game plus the correct esoteric data vastly diminishes the potential for explaining the information by fraud as this is likely to have required major collaboration from numerous highly respected people.

This case appears to be one of the most remarkable cases supporting evidence for survival of an intelligent component of human existence after bodily death. It is particularly relevant because of its possibly unique element of combining both a controlled analysis of a skill with that of the detailed confirmation of the correctness of information that was very difficult to locate.

Pacific Neuropsychiatric Institute
4616 25th Avenue NE, PMB #236
Seattle, WA 98105, U.S.A.

REFERENCES

"Deep blue wins 3.5-2.5" (1997) Retrieved 1 January 2007 from http://www.research.ibm.com/deepblue/home/html/b.html

Eisenbeiss, W. and Hassler, D. (2006) An assessment of ostensible communications with a deceased grandmaster as evidence for survival. JSPR 70, 65-97.

Elo, A. E. (1978) *The Rating of Chessplayers*, Past and Present. Bibra Lake, Western Australia: Arco Pub. [see also http://www.chessbase.com/newsdetail.asp?newsid=1160]

Evans, L. and Korn, W. (1965) Modern Chess Openings (Tenth Edition). London: Pitman.

Hassler, D. (2007) Correspondence. JSPR 71, 53.

Keene, R. and Divinsky, N. (1989) Warriors of the Mind: A Quest for the Supreme Genius of the Chess Board. London: B. T. Batsford.

Nunn, J. (1999) John Nunn's Chess Puzzle Book, 68. London: Gambit.