

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

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ABSTRACT

The author performed 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 validators (news media, analysis by an expert player) mitigate 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 responses. Fraud would be extremely difficult to perpetrate and require multiple collaborations. This case involves possibly a unique combination of both a controlled analysis of a skill with data. In this case, chess at a very high level combines with the detailed confirmation of the correctness of very difficult to locate biographical information as reported by Eisenbeiss and Hassler (2006), This case may be one of the most remarkable cases supporting 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 that is so special that intensive analysis is apposite. One such kind of case is the communication of special skills that are not easily replicable. Cases of responsive xenoglossy or of remarkable musical composition would be examples. So would a chess game played by a leading grandmaster.

Eisenbeiss and Hassler (2006) describe a case such as this of a chess game between the alleged *Geza Maroczy (deceased¹)*, in his lifetime a leading early twentieth century grandmaster versus one of the world’s leading chess players in the latter part of the twentieth century, Victor Korchnoi (alive). Possibly unique, however, to this case, is what I call the “skills-data dichotomy”, a combination of availability of authenticated data plus the controlled evaluation of skills.

Original Source Validation of Data and Chess Skills

This very well documented very important case provokes dilemmas because it argues for the survival hypothesis, extended after-death communication, continued use of high-level skills after death (chess) and responsive communication of well-authenticated biographical and intriguing information data (sometimes, unknown or apparently incorrect until highly researched). Eisenbeiss and Hassler (2006) provide remarkable authenticated

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

details about the alleged communicator, *Maroczy*, and point out apparent inconsistencies which ultimately support the hypothesis that they were not just fabricating data from known sources. Having discussed this case at length with both Dr Wolfgang Eisenbeiss and Dieter Hassler, I believe that they have applied a rational and careful scientific approach, and their integrity in this case is above reproach.

However, Survival Research is more demanding than that. The hypothesis of fraud is always to be considered. I believe this could be more easily nullified if several separate individuals were shown to be in possession of the critical information of this case in the late 1980s when computers were not that advanced; this is particularly so in relation to the chess game, as this is the key skill being judged. Early outside validation is also important to some degree to eliminate fabrication of information from the Internet and demonstration that answers have not been changed at a later point.

Outside sources at that time (*inter alia*, who was told which chess moves) allow a more public knowledge of such information, and their existence in the days preceding significant advances in skill of chess computers is particularly relevant to avoid hypotheses that the game was fabricated via a chess computer. In that regard, the obtaining of information by the media from 1987 to 1992 can be seen as a definite plus. So can the outside examination of the game to that point (the key part of the game had been played, up to move 27) by the Swiss chess champion in 1987.

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 computer ranked chess player ever (ELO 2851), Garry Kasparov, lost to a computer, after the computer (Deep Blue) had been fed every available sequence of information on him, including every game he had played ('Deep blue wins', 1997). This followed a match in 1996 that was won by Kasparov 4-2. Kasparov was quoted as saying that it was like he was playing himself and to win he had to deviate from the computer's expectations and hence play inferiorly, moving away from his own best move. Moreover, this computer was calculating billions of combinations per second. But even with Deep Blue, there were grandmaster advisors — Kasparov played against more than just a computer.

Using such a computer with all *Maroczy*'s information built in would cost a fortune and likely not answer our question as to the basic level of play that *Maroczy* exhibited. Nevertheless, lesser chess computer programs are worthwhile, as the availability of a computer analyzed chess game is more measurable than the subjectivity of human frailties, in this regard. However, we should bear in mind that the computer here is just one component of the analysis, particularly as its level was likely high expert / low master level. Computer interpretations have significant limitations as they do not appreciate the fine niceties of strategy, overall perspective, the psychological intricacies of play and the unit that is created by the artistic creation we call chess.

Whereas computers are very good at tactical plays that directly can be calculated, the human brain generally does much better with the real sacrifices and understandings of positional play equivalence for material.

The quality of a chess game itself could even more cogently argue for survival than the authenticating of the large and diverse amounts of information data communicated in this instance, because skills may be less vulnerable to superpsi hypotheses than data. But the specific reported supporting information data in this case, of 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 that has been recorded by Eisenbeiss and Hassler (2006) (See Appendix 1). These authors discussed detailed biographical data relating to *Maroczy* and presented the moves of this lengthy, remarkable chess game (15 June 1885-11 February 1893) with little commentary; the bulk of the key parts of the game (up to move 27) was played by March 1887. The game required detailed expert analysis. This had not yet been done and 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 well could we rank *Maroczy*? I set a level of play for *Maroczy* as at least Master level (given his ostensible claimed rustiness, lack of “practice”, 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 comparing the moves of a computer that played at approximately low Master level. The generated scores for the moves of the players and that suggested by the computer were compared and ranked for superiority, equality and inferiority. The author assiduously consulted with an outside independent International Chess Master, Dr, Leon Pliester, validating ideas, correcting obvious errors of computer judgement and move rankings and assessing stylistic interpretations of levels of 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 his standard of play by the 1920s was not as well esteemed. He also lived in the Netherlands, England and the U.S. before returning to Hungary in 1927. He served as controller for the world championship, (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 Soviet chess federation in favour of his major competitor for the world title at that time, Anatoly Karpov). Korchnoi the current World Senior Chess Champion. was a three time challenger for the World Chess Championship, the four-time USSR chess champion, the two-time winner of the Interzonal Tournaments, the winner of two Candidates Tournaments and a five-time European champion. He was legitimately the number 2 player in the world for more than a decade,

Rankings and real standards compared with today

Elo (1978) historically ranked 476 chess players over a five year period. To that time, *Maroczy* is ranked 29th all time, with Korchnoi 13th. Elsewhere, Keene and Divinsky (1989) regard Korchnoi as 7th all time. Given all other situations, such as both being equally up to date with the opening theory, equal chess theory knowledge at that point, and both being alive, we would therefore theoretically have expected Korchnoi to have beaten *Maroczy* in a close and lengthy match (involving many games). However, if Korchnoi had the advantages of today's modern technology and the profound advantage of current chess theory, and *Maroczy* only the knowledge of the first half of the twentieth century, the result would likely have been overwhelmingly in favour of Korchnoi. Nevertheless, the result of any *individual* chess game could not be estimated as its logical outcome is a draw. But these rankings are for "over-the-board" chess, and the unique, actual game conditions, simulate more 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, legitimate top players of the 1910 era might debatedly play only master level or less today. Therefore, this finding suggests that today possibly hundreds or even thousands of players could mimic this individual *Maroczy* game. Consequently, evaluating not only the differences from the chosen computer's moves, but examining qualitative and stylistic components, becomes particularly relevant, as well.

Rollans

The "medium" for this match, Robert Rollans (1914-1993) recorded *Maroczy's* moves by automatic writing. He did not know chess initially and was taught rudimentary moves during the match. (As an aside, because much of the separate *Maroczy* validating data was in Hungarian, Rollans ostensibly knew rudimentary simple Hungarian: Eisenbeiss & Hassler, 2006).

Eisenbeiss

The controller of moves between the players, Dr Wolfgang Eisenbeiss. is a Swiss stockbroker financial analyst, author and doctor of economics (1965), with forty years experience in survival research. He plays club amateur chess (current ranking 1960 ELO), not against computers, but at clearly insufficient standard to mimic *Maroczy*. He has never played white in a French defence. Eisenbeiss does not speak any Hungarian.

Neppe

I express an opinion on this game here only because of the absence of someone else more qualified than me doing so. I had vainly hoped that a former world chess champion who had been approached would comment on this game. Consequently, it is with the full awareness of my own inadequacies and the knowledge that inferior players like myself cannot sometimes fully 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 to even 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 available many games so can establish I have beaten different, but similar playing standard chess computers, literally thousands of times, over many years). This implies I have been playing informally at possibly high expert or low master level. All in all, I have for four decades maintained a major interest in chess, its theory and analyses. More than three decades ago, I was a chess champion who gave up competitive chess. At that time, my chess was highly respected in my native South Africa. I had played an exhibition against more than fifty club players simultaneously, I had also played blindfold simultaneously against several players: and I had also 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 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 fair balance in the absence of someone superior performing this critically important task. I will 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, non-deterministic, permanent brain styles. It technically was given ample pause times allowing it in actuality several hours to contemplate moves although its setting was 0.05 Fischer clock, 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. Therefore, much more powerful computers and settings could be used; however, I believe that this computer achieves sufficient purpose for an adequate analysis of the above

game as the attempt to evaluate the adequacy level of *Maroczy's* play beyond that of almost any non-championship player. Clearly, the computer chosen was probably reflecting play limited to a high expert low master level, the lowest level to be tested for *Maroczy's* play. An extraordinarily powerful computer could also be used, 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 may compare 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 playing likely at high expert /low master level.

Opening theory

For chess opening theory, so as to get 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 is a little less than midway between these two time periods). I also referred to 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 in appendix 1. The opening moves describe 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.

White's move 7 Qg4 is an old variation (circa the mid-1930s to 1950s) therefore known in *Maroczy's* time and fitting and supporting the style of *Maroczy* (who was historically regarded as a great user of his queen in both middle- and end-games). It was well referenced by the former World Champion (1935-1937) Max Euwe (1901-1981) Although it was largely out of fashion at the time of *Maroczy's* death, it has occasionally been used until today, even by world champions, and also by Korchnoi himself. It is an active play that is double-edged and gives both sides opportunities. Modern chess opening theory looks askance at such moves that, with best play, forces white to battle for equality.

The (disputable) two key errors in the game are historically relevant: On *Maroczy's* tenth move, he moved his king, Kd1 (the computer suggested Qd3 and another alternative it had come up with is Ne2, both listed in opening theory) and he followed up with a non-sequitur move that added nothing to his game, B-b5 (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, in combination, in the modern day are hard to justify; they shape the whole game and lead to the loss. However, it is completely comprehensible for someone who did not know chess theory beyond 1950. Even more so, this move is still found in later major theoretical books on chess (e.g. Evans and Korn, 1965, p155, column 45). Korchnoi took major advantage of the *Maroczy* 10th and 12th moves in the manner a great grandmaster would, with an opening innovation of d*c3 and continued to achieve a significant advantage with his follow-up moves (discussed in the Table 2 commentary below).

From that point, move 13, *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 these moves are not regarded by the author at any point as definitely inferior). Even move #47, though not the best, was played in a completely resignable position amongst grandmasters (*Maroczy* resigned after move #47; some would have 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 leads to too many choices; 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 to opening theory (move #11), to the time of *Maroczy* potentially being able to resign at move 45, the computer felt Korchnoi played an inferior move 4 times (see Table 1 reflecting minuses in the computer decision column) versus 5 times with *Maroczy*. Using the VN (Vernon Neppe) final arbitration decision, the Korchnoi score demonstrates that none of those were inferior moves: Instead, the computer may not have had deep or strategic enough knowledge to understand that two of those moves were actually even *superior* to the computer's suggestion. Similarly, with *Maroczy*, in all five instances, the VN final arbitration decision was equal not inferior. 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, with the other two being possibly only equal.

Human opinions during the game of the level of play

It is interesting that despite the computer perceiving black as 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 bulk of the game had been played by that stage. This is important as Dr Eisenbeiss indicates that the former Swiss Champion, Heinz Wirthensohn, also was involved in the analysis at move 27 (late summer 1986). He did not know the circumstances of the game but was just given the game blindly. This provides a further excellent outside arbitrator in the early part of this investigation. Wirthensohn also felt the game had ‘drawish’ possibilities after move 18. Clearly, in retrospect, the game was not a draw at that point, white (*Maroczy*) was in a difficult position, and the great grandmaster Korchnoi was able to win it. However, this illustrates again, at least, the appropriateness of regarding the level of competitiveness of *Maroczy* as at least that of master level or low grandmaster level. Another outsider who could validate the game moves at that early stage was Petra Leeuwerik, later Korchnoi’s wife.

Human refereeing

There were times when moves by both players based on my refereeing were superior yet the computer could not detect it. A reason Korchnoi may have had more “better” moves was likely because he was winning based on his superior opening theory, and when a player is losing it is difficult to judge what the best move is. This is so because they may lose inevitably. This is the reason, discussed below, for my search for an adequate control game by *Maroczy* in which he lost.

At times, even though I judged certain moves as of grandmaster standard, the computer after prolonged thinking, was able to generate the same move. For example, White’s move 36, h5+ may appear simple, but because of the depth of analyses required is actually at a high level. However, given that the computer found it (albeit not necessarily with *Maroczy's* depth of understanding, a weak player could play the move as superficially it looks obvious). I comment no further on these moves. It is interesting, however, that I allowed the computer far more time to “think” about moves the second and third times I allowed it to play the game. As expected, it came up with occasional improvements and this was one of them.

Overall summary

The overall summary of the results have been separated out here in Table 1. I have separated the scoring into two: firstly, I take into account all moves; secondly, I take into account the relevant moves excluding opening theory (moves 1 to 10) and also as Black could resign from move 45, it is illogical to score beyond this. Therefore the corrected interval scores appear the more legitimate ones in judging *Maroczy's* standard. This simple table allows clarity and perspective first.

Based on Table 1, and taking into account human logic, it can be seen that: *Maroczy is much better than this computer; Korchnoi absolutely overwhelms this computer.* However, using the purely faulty computer logic, *Maroczy* does not quite match up to the computer. However, my commentary on these

moves argues that it is not *Maroczy* who is at fault here, but the limitations of the computers perception.

Table 1. Summary results of analyses of the *Maroczy* vs. *Korchnoi* game

	<i>Maroczy</i>	<i>Korchnoi</i>
Computer Interval score	-7 to -5	7
VN Referee Interval score based on human logic	3	14
Corrected Interval Computer score (moves 11-45)	-4	5
Corrected Interval 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

The moves in detail

Table 2 reflects the per-move detail (with amplifying footnotes) of how *Maroczy* (*Mz*) and *Korchnoi* (*Kn*) differed from the computer are tabulated in detail in Table 2. Only the differences between the computers moves and that of *Maroczy* and *Korchnoi* with detailed commentary are tabulated. Effectively, the process involved the computer playing every move individually and comparing the computer's choice with the choice made by *Maroczy* and *Korchnoi*. These choices were compared in the next columns of Chess Computer Decision (Cp DEC) and Human VN Decision (VN DEC) *

* In Tables 1 and 2 under Computer decision (Computer score) or VN referee decision (VN referee score based on human logic) -1 reflects a slightly inferior move; 1 reflects slightly better move than the computer. -2 and 2 reflect definitely better moves. 3s are overwhelming. E refers to equal. On the other hand, these interval differences can be converted into simpler ordinal terminology: The total ordinal scores in the score columns, reflect only better, same, worse or +1, 0, -1 respectively. Also, when the tables say e.g. -1 to E**, this reflects that the scoring needs modification: For example, in Table 2, the -1 to E reflects an absolute -1 but taking into account opening theory at the time of *Maroczy's* death it would be regarded as equal; similarly -2 to 1 reflects attempts at complicating in a resignable position.

Corrected scores reflect judgements based on actual play and not the book theory precedents of learnt opening theory. I have also deleted out moves for the period after move 45 as *Maroczy* could have resigned at that point because his position was so poor. The corrections allow for chess theory and the ordinal intervals do not therefore judge the extent of difference between the computer move and the human's move, just that the difference was relevant enough to potentially impact on the game. Ordinal scores are reflected only as 1 or 0 (for equal) or -1.

In Table 2, a score next to a move on the computer or *Maroczy* / *Korchnoi* column reflects the statistical calculation of the actual position judgement at that time of the game. Positive scores arbitrarily reflect that *Korchnoi* is winning. E.g. 0.1 is slight; 1 is approximately a Pawn difference and will likely reflect *Korchnoi* winning; 2 is a significant difference; 3 or more is so large that it is worth resigning. A difference based on experience with this computer program and relevance in chess, is 20%, with a minimum of 0.1 between the two scores. Only moves that are different from the computer are tabulated. *Maroczy* differed from the computer 23 times, and 16 times during moves 11 to 45; *Korchnoi* differed from the computer 20 times, and like *Maroczy*, 16 during moves 11 to 45. These differences reflect the dissimilarity between humans and computers and the unlikelihood of this game just being a

computer simulation.

Corrected scores reflect judgements based on actual play and not book theory precedents of opening theory or the period after move 45 when *Maroczy* could have resigned. Comments in the final column are reflected by lettering in the footnotes.

Table 2: Computer (Cp) analysis of *Mz* vs *Kn* & referees comments.[^]

Move #	Mz	Comp	Comp	Comp	Comp	VN	Comment
<i>White</i>	<i>Mz</i>	<i>Cp move</i>	<i>Ranked</i>	<i>Ranked Cp</i>	<i>Cp DEC</i>	<i>VN</i>	<i>Comment</i>
<i>Mz</i>	<i>move</i>		<i>Mz move</i>	<i>move</i>		<i>DEC</i>	<i>***</i>
7	Qg4	f4 or a4	E; book	E; book	E; book	E; book	
8	Q*g7	C*d4	E; book	E; book	E; book	E; book	B
10	Kd1	Qd3	0.30 *	E; book	-1 to E **	-1	C
11	Nf3	f4	.16	.26	1	E	
12	Bb5	Qh5	1.06	-.40	-2 to -1	-1	E
14	Bg5	Ng5	.72	.41	-1	E	G
16.	Qh4+	Qh3	.53	.38	-1	E	
17	Ke2	Qa3	1.71	1.22	-2 to -1	E	H
18	g*f3	K*f3	1.91	2.30	1	E	G
21	Rad1	h4	1.07	1.19	E	E	G
22	Rd3	Rb1	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	0.60	-1	E	
31	Rf1	Ke2	0;79	0.85	E	1	K
34	Kd3	Rf1	.79	.89	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 Lost!
47	Rf2	Rd1	11.28	4.65	-2 to -1	-1	M, N.
<i>Black</i>	<i>Kn</i>	<i>Cy move</i>	<i>Ranked</i>	<i>Ranked Cp</i>	<i>Cp DEC</i>	<i>VN</i>	<i>Comment</i>
<i>Kni</i>	<i>move</i>		<i>Kx move</i>	<i>move</i>		<i>DEC</i>	<i>***</i>
7	c*d4	Ng6	E; book	E; book	E; book	E; book	
10	d*c3	Nd7	0.24	book	E	1	
12	Bd7	Rg2	.43	1.01	-1	E	A
19	Q*e4+	Qb5	1.79	2.35	-1	E	D,
20	f6	f5	1,20	.99	1	1	F; or Qb6 0.29:.
23	Rg6	R*g3	1.41	1.74	-1	1	I
24	Rag8	R*g3	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	1	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	

[^] If the moves of the computer and the players were the same, I do not comment. If they are different, I notated each move. This created several separate columns : the Move number, the

Maroczy or Korchnoi choice, the Computer choice, the score the computer allocated *Maroczy* or Korchnoi (as these were measured as to how much Korchnoi was winning the lower the score under the *Maroczy* column the better, and the higher the one under Korchnoi the better) and the Score the computer allocated for its move

- positive scores such as this are used to reflect how much Korchnoi is winning. A score of 1.0 is approximately equal to a pawn advantage.

** -1 reflects slightly inferior move; 1 reflects slightly better move than computer. -2 and 2 reflect definitely better move. 3s are overwhelming. Next to this under range is the total ordinal scores reflect only better, same, worse or +1, 0, -1 respectively. E reflects equality for that move. (In Table 2 reflecting e.g. -2 to -1 (-2 is interval, -1 would be ordinal)

***** Letters here relate to the comments column.**

A. More aggressive style.

B. Wild. More typical of *Maroczy* historically who would do Queen ventures like this.

C. One main line that gives White almost equality in this opening theory is that of Schmid-Corall, Lucerne 1963 that MCO ranks = after 16 moves (MCO note q, p173 to column 44, p155) The moves run: 9 Q*h7, Qc7 (as per game); 10 Ne2, Nbc6; 11 f4, Bd7; 12 Qd3 d*c3; 13. Rb1 Rc8; 14 h4, Bf5, Rh3, d4; = though the computer still correctly in my opinion ranks black as slightly better (0.15) implying white's whole line of the Q venture (which would not likely stylistically commonly done today in grandmaster play, is minimally suspect; but this 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 that point is Korchnoi's 10th move d*c3, 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 then would run based on chess theory 11 Nf3 N*e5, 12 Bf4 Q*c3, 13 N*e5, Q*a1+, 14 Bc1 Rf8, 15 Bb5+ Nc6, Re1 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 ((0.53 vs 1.20). Korchnoi's move reflects his active, complicating style.

E. With the computer's White Move #12 Qh5 the computer score is a -.40 indicating white was at an advantage; the Computer decision reflected *Maroczy*'s poor move of Bb5 using the -2 showing a grave difference, although realistically the position was likely not as bad as that. For the record, this is regarded by the computer as the losing move. Yet, the computer "illogically" played out its 12 Qh5 move, over the next few moves, quickly changed its stance 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 favoring black. In another variation, it played out and demonstrated 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 certainly was a move which was inconsistent. One earlier suggestion by the computer (running on less time) was Ng5 which may be significantly better.

F. The alternative 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; computer reflects inferiority.

I Human sees simplification logical here—understands strategy better than computer!

J. Move f5 is illogical, Rab1 illogical but would have logical the move before (Korchnoi 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 what is the better losing move. However, the computer objectifies this, the human tries to find what may produce more complications.

DISCUSSION

Important theoretical general issues about 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, resignation earlier is a characteristic of the expert player, and *Maroczy* in fact could appropriately have resigned 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 to the inevitable working to gain a pawn and nurse that for sixty moves exchanging pieces to the ending; or we win on move 75 but the win was decided on move 15 sometimes and the rest was technique. A brilliant conception may lead to the pawn advantage or even something more slender; yet another may force immediate resignation because the queen was trapped in the middle of the board. Both can be outstanding works of art.

Second, another major confounding factor is the multiyear 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 game could be argued to be worse (I believe), although some would argue that it could be better because the players would be more able to establish perfection. But this would presuppose that the players were devoting greater amounts of time to the game.

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

And fourth, clearly there are variations that one could argue that though the particular computer agreed with *Maroczy*, it does not mean better moves could not have been found. However, my mission has been to offer a critique on a simulated computer analysis only, not to suggest new moves (which would be imprudent of me to do, 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, as 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 provides. I used the phrase. “Ironically” because this is exactly the portrayal of the *Maroczy*-Korchnoi chess game, though the extent of move refutation was

less profound, but (move #10 combined with move #12, enough to lose) with *Maroczy* playing an excellent game thereafter. But 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 induced this line in part, realizing that his alleged communicator would not know that 10. Kd1 was to him very suspect. Korchnoi had told Dr Eisenbeiss that in Suetin's book in Russia, the fact that Korchnoi (in his opinion), had actually refuted this line (10. Kd10) was not acknowledged, because his influence was ignored in Russia after his defection; yet Korchnoi felt that grandmasters at that time (well after Maroczy's death) would have routinely known how difficult this line was. This "refutation" had actually been demonstrated in a game two years after Maroczy had died, namely, Paoli-Schmid in Venice 1953. Both Paoli and *Maroczy* had to then negotiate the downhill complexities produced by the move. It is interesting that, by comparison, the computer assessed *Maroczy* as in better shape after 16 moves compared with 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 for a few moves. Enrico Paoli (1908–2005; <http://www.chessbase.com/newsdetail.asp?newsid=2804>), a "grandmaster honoris causa" and later the world's strongest active nonagenarian, won his last Italian championship at age of 60. It is a bizarre co-incidence 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 most directly be compared here 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 to be incorrect, however).

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 do so via computer. Yet, this 12th move, *Maroczy's* possible attempt at 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 abound even if one accepts the discarnate hypothesis: First, even if he did know the variation, it may have been too late, as he had already played move 10 at the time. Second, and potentially more globally relevant, why must *Maroczy's* chess development have continued after death? This would imply a new 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 known all of Korchnoi's plans. In fact, generalizing and extending this hypothesis to others and using an extreme hypothesis, a deceased who knew nothing about chess should beat

the living world champion. Essentially, it is ludicrous to hypothesize that the mere act of dying would actualize even components of supreme powers in anyone and make him/her any of omniscient, omnipotent or omnipresent.

Perspective of standard

As can be seen by Table 1, based on ranking scores, *Maroczy* (without a “chess board”?) played substantially better than the high expert- low master level 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 a style reminiscent of the early twentieth century, and of the kind of end-game expertise he was known for. I don’t think a chess computer even today would be playing like that (even if equivalent, it would play differently).

Chess computer replication as an alternative explanation

Because of the length of the game (1985-1993), could a computer just processing information continuously have then played at *Maroczy’s* level? I believe not. The argument that a computer of, say, 1985 vintage, allowed to think even for many, many months could replicate a new 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 were identical, it still would 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 stylistic differences between an accomplished chess player (like a grandmaster) and those of even the most remarkable computer hardware and software are profound. The computer’s conception 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 its programmers. Whereas Deep Blue may very disputably almost have achieved a form of humanness in that regard, possibly only the combination of ongoing human programming, with this computer’s blindingly fast processing and its unequalled knowledge of its opponent, not its capacity for real cogitation, 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 the best move might be. This led me to search for a similar, appropriate losing game by the living *Maroczy* as a control. This game would involve another computer simulation to evaluate *Maroczy’s* standard and applying the following required criteria:

- in his later years i.e. certainly after 1920, when he was past his best,
- I wanted *Maroczy* to play all of: white, in a French Defence, Winawer

variation like this, in a game he loses in positional style in over 40 moves.

- I wanted the opponent to be one of the top five players of his day.
- I realized it was unlikely to locate a closer replica of this game, where Maroczy as white in a French Defence, Winawer variation played, 8. Q*g7 and lost because of outright theoretical refutations.

I found games that were in part suitable (e.g. Maroczy Tartakower, Teplitz-Schönau 1922, Dutch Defence; Maroczy Bogoljubow, London 1922, Four Knights Defence). However, these games were not French Defence and were not outrightly refuted by outdated chess theory. I, therefore, have not 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 by the computer vary significantly from the added human factor of taking all estimations into account, this extra control would have been limited.

Cheating by a master: The live human player explanation.

Could one or more live Chess Masters have been consulted and played some of *Maroczy’s* moves? If only some moves were played by the live Master, the game would likely be more uneven in standard and consistency, which it was not. If all moves were played by (say) one live chess master, consciously communicating the moves, this would require a lengthy game but it could be possible. However, it is reasonably established that Rollans the medium did not know any chess at the start, knew the moves only rudimentarily at the end of the game, had an impeccable reputation for honesty and apparently did not know any chess masters. Nevertheless, he could technically have consulted a chess master: if he did he would have had to incorporate repetitively into his subconscious the move communicated or via conscious fakery, have written those moves using automatic handwriting. These elements cannot be totally ruled out, but seem highly unlikely.

Additionally, the standard besides the opening was very high, the endgame was stylistically compatible with Maroczy, and the extra consistent factual information uncovered, combined with the skill in the game raise up the chances of a massive fraud being 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. (31/ 31 or 100% correct for the most difficult to retrieve items; 79/81 or 97.53% with 7 unknowns for all items — see Appendix 2).

These data are so remarkably accurate as evidence for some means of

communication that it accentuates further just a distant spectre of the superpsi 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 that exists in inanimate printed form) or by fraudulent detailed research (this is very unlikely — it would involve 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 / Romih². 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

In summary,

1. 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 possibly 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

² The spelling of chess-players names has always been variable, even that of Victor Korchnoi (e.g. Viktor Kortchnoi or Korchnoy).

that a chess computer played *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 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 maintained communication over time. Because the standard is far higher than any non-master 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 responses (47 moves in the game), to use this as 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 an explanatory hypothesis for this game than the survival after death with extended intelligent communication hypothesis 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 information that initially was contradictory yet later justified. The combination of the skill of the game plus the correct esoteric data vastly diminishes the potential to explain the information by fraud and this would have likely required major collaborations from numerous highly respected individuals.

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 very difficult to locate data information..

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Appendix 1. Maroczy vs Korchnoi. 15 June 1985- 11 February 1993. (White —Maroczy vs Black—Korchnoi)

Result 0-1	1 e4 e6	2 d4 d5	3 Nc3 Bb4	4 e5 c5	5 a3 Bxc3+
6 bxc3 Ne7	7 Qg4 cxd4	8 Qxg7 Rg8	9 Qxh7 Qc7	10 Kd1 dxc3	11 Nf3 Nbc6
12 Bb5 Bd7	13 Bxc6 Bxc6	14 Bg5 d4	15 Bxe7 Kxe7	16 Qh4+ Ke8	17 Ke2 Bxf3+
18 gxf3 Qxe5+	19 Qe4 Qxe4+	20 fxe4 f6	21 Rad1 e5	22 Rd3 Kf7	23 Rg3 Rg6
24 Rhg1 Rag8	25 a4 Rxg3	26 fxg3 b6	27 h4 a6	28 g4 b5	29 axb5 axb5
30 Kd3 Kg6	31 Rf1 Rh8	32 Rh1 Rh7	33 Ke2 Ra7	34 Kd3 Ra2	35 Rf1 b4
36 h5+ Kg5	37 Rf5+ Kxg4	38 h6 b3	39 h7 Ra8	40 cxb3 Rh8	41 Rxf6 Rxh7
42 Rg6+ Kf3	43 Rf6+ Kg3	44 Rf1 Rh2	45 Rd1 Kf3	46 Rf1+ Rf2	47 Rxf2+ Kxf2

Maroczy (White) resigns as: 48 b4 c2,49 Kxc2 Ke2,50 b5 d3+, 51 Kc3 d2, 52 b6 d1=Q

Appendix 2: Correction of data from Eisenbeiss and Hassler (2006).

In Table 3, the data listed in the “Unsolved: and the “Incorrect” lines are transposed. This means that the recorded *Maroczy* data actually scored 31 out of 31 on the most difficult to retrieve items: complex level 5 (hidden) and 6 (private) information (correct 100% not 93.9%), with 2 further answers unsolved (unknown). However, there are compounding elements: First, the answer # 73 (as well as answers #70-72) was a non-sequitur because *Maroczy's* response (“I came first in a grandmaster tournament with the elite. I beat Janowski, Pillsbury, Teichmann, Dr Lasker and others”) did not merit the question Eisenbeiss posed (#5.2: “What are the names of the first five in the tournament?”) We know *Maroczy* won (#69), but *Maroczy* spoke about the elite participants not who came in the first five. Therefore I eliminate data from #70-73. Secondly, item #74 is scored as half correct. *Maroczy* stated “I was third or second, I don't remember”. He came second and this is a hit not a half-hit. Third, there is one other scoring error (Alekhine for Lasker #62 is incorrect not unknown). Fourth, an extra correct item after #79 (6 questions and answers originally yet 5 scores) exists. Therefore, of the consequent 88 items, there are now two incorrect items (#82, #62 new): *Maroczy* did not beat Alapin in the 1905 Ostend tournament (but he did draw twice which still makes one chess point—the same as a win and a loss; and Lasker not Alekhine won Nuremburg 1896. There are also now 7 (not 8) unknown answers. This puts the overall scoring at 97.53% correct (79/81 known answers for Table 1 (plus the extra authenticated data from items #70-73, but, as above, they were not posed as questions). I understand that the original co-author, Dieter Hassler submitted a correction to the *JSPR* in November 2006. This is as yet unpublished.