

# CHES AS EDUCATION: CHARACTER ASSASSINATION OR LIFE OF THE MIND?

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First, a word about my background. I address you today principally as a humanist and a teacher. Yet many of you know me as a chess player and a chess organizer. What I hope to do in this paper is to bring the "disciplined subjectivity" of the humanities to bear upon my thirteen years of experience as a chess player and tournament director, with the hope that the result will provide some insight into the uses and abuses of chess. My concern will be primarily as an educator, but my approach will at times be reminiscent in nature.

The negative effects of chess play are well known. Every large chess club has at least one "chess addict", the shadowy figure who has given his life to the game. We are all familiar with Reuben Fine's ground-breaking work The Psychology of the Chess Player. With its description of the chess player's character in terms of onanism, latent homosexuality and infantile aggressive traits, many of us may wish that it had never been written. It should be pointed out that the book was written shortly after Fine's final retirement of the game, a retirement that came after Fine, admittedly one of the best players of his time, showed himself repeatedly unable to defeat his chief rival Reshevsky and take his place among the world championship contenders. Bearing this in mind, it may be fair to characterize the book as Dr. Fine's final revenge upon the game which denied him his ultimate ambition. As a revenge, Fine's book may be described as containing elements of infantile aggression, onanism, etc. But that will get us nowhere. For after all, Fine too is a - chess player!

And yet as organizers and players we must admit that at times some very real character disturbances are manifested by our fellow players. For me it is enough to recall the time when a prominent midwestern master chased a prominent midwestern A player for blocks down the streets of the North side of Chicago after losing an important game. What is odd about that, some of you might ask. Well, what about the time that Walter Grombacher turned a live chicken loose during a crucial round in the august halls of the Western Open? Tournament directors have their faults as well. The late Ernie Olfe, a fine TD and a finer man, once left his tournament headquarters in the hotel bar long enough to make an inspection of the tournament hall. Entering the grand ballroom in which there was dead silence he glared around at the players, shouted QUIET! at the top of his voice and stomped back to the bar. A new rule change may require that tournament directors take a breath test before rendering an important decision.

Ed Formanek, our most recent International Master, once said that the two most essential character traits of any chess master were fear and greed. Greed makes you go after that pawn and fear makes you wonder what your opponent is going to do about it once you've got it. Chess style, according to Formanek, can be determined by the relative amounts of fear and greed that a master has within his character. The player who is defensive and positional usually has a predominance of fear; the attacking tactical player has a predominance of greed. Whimsy aside, a certain amount of paranoia is cultivated in the game of chess. After all, what is a chess tournament? A chess tournament is, by definition, an activity in which you spend many hours each day, using your best intellectual and imaginative abilities to figure out how the other player (and perhaps the tournament director) is out to get you. The constant exercise of this "paranoid faculty" can lead to the attainment of a good deal of skill at chess. In the parlance of the game it is known as "looking ahead".

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Certainly chess pursued as a serious activity might lead to an accentuation of paranoid traits already present. One of the last authenticated anecdotes which I've heard about Bobby Fischer was told to me by a leading American grandmaster in 1975. It seems that this particular GM was at the Statham tournament at Lone Pine in the year in which that tournament attracted the largest number of Western grandmasters ever to gather under one roof. My friend grandmaster X received a phone call from Fischer while playing in the event. "Get them out of there", Fischer said "What? Get who out of where, Bobby?", my friend replied, "Get the players out of the tournament hall." "But why, Bobby?" "Because the Russians are going to bomb the tournament hall- the commies won't miss their chance to wipe out all of those Western players." This is not to mention accusations of hypnotism, death rays, the KGB, the CIA, spiritualists, ESP, poison, microwaves and dead flies which have now become the standard concomitants at any important international match. Of course tournament directors are accustomed to this kind of complaint. My friend Bill Lukowiak was once directing a large tournament in Atlantic City when a hurricane struck that part of the mid-Atlantic seacoast. "Can't you do something about the noise?", one player complained.

An element of divorce from reality is an important component of chess play, and of chess skill, as it is equally an important element of scientific skill. It is highly significant that prodigies appear in only three fields: mathematics, music and chess. In all of these fields an adolescent can achieve expert skill and world fame, although his very greatest results may await him in his twenties or thirties. This phenomenon is due to the intrinsic nature of chess, or math, or music. In none of these endeavours does a mature or adult awareness seem to contribute in an important way towards success. Philosophers and physicists run a close second to mathematicians and chess player in their apparent divorce from their surroundings, or "spaciness" as it is known in ordinary language. If you don't believe me, go attend a convention and look to see how they're dressed. Or pick out the chess players from among other guests at a large hotel in a strange city. And how many players do we know who have been stopped by hotel detectives on their way to playing in a tournament?

And yet, though many may poke fun at the figure of the absent minded mathematics professor who can never quite come up with two socks that match each other, this ability to divorce one's imagination from immediate surroundings is of great importance. The ability to live in a fantasy world, to imagine an interior space, governed by rules of its own, this ability that is much encouraged and developed by chess, what is this but the very essence of creativity? It is this very ability which produces the most lasting and significant contributions in both the world of art and the world of science. Any manifestations of this creative faculty should be encouraged by us as educators. But as educators we must also ask, what can we expect specifically from chess and how can chess benefit our common endeavour? Andrew Karklins, a strong master, once characterized chess as providing a home for all of "the lost intellectuals of the world". Is it a world apart? Or can chess provide an important introduction to and preparation for the intellectual disciplines? Let us examine some of the inherent features of the game in order to decide.

What distinguishes chess from all other games is what we might call its classical status. Chess has an historical and international dimension. It also possesses the largest literature of any game, a literature which is threatening to

approach thirty thousand volumes. This classical, historical, and international status gives chess primacy when it come to the testing of any of the numerous modern applications of game theory (mathematics and military or business models) or game metaphor (Wittgenstein or transactional analysis and the games people play.) It is no accident that the most sophisticated teams of computer engineers and computer programmers from all of the most advanced technological nations on earth are testing both their machine and programming capacity in international computer chess tournaments. The unique status of chess gives these researchers an opportunity to explore both their machines' imaginative capabilities (chess as art) and its logical capabilities (chess as logical sequence and objectifiable decision, i.e., if my moves are better, I win). This classical status of chess is a testimony to its durability, but for us teachers it provides ancillary advantages. Chess has a history, and it therefore has a history of styles. Chess has a romantic period (Morphy), a positivistic period (Steinitz), a hyper-modern period (which developed during the 19-teens interestingly enough, when Stravinsky, Pound and Picasso were inventing modern art), a classical period (Capablanca), a neo-romantic period (Alekhine in his early stages), a Marxist period and a Soviet school (if we are to believe the Russians), a Freudian period (if we are to believe Reuben Fine), a neo-classical school (Smyslov and Karpov), a futuristic school (Bronstein), and the contemporary pragmatic and iconoclastic school (Fisher). The best place to acquire this sense of the historical development of chess is from Robert Byrne's excellent column for the NY Times, or, of course, from a close and detailed study of the game. A young, up and coming chess player automatically becomes exposed to this sense of an evolution of ideas over a period of time and becomes intimately familiar with the difference in modes of thought between our eras and other eras. Nor does this sense of historical difference lead to an attitude of disrespect. I know one talented player who became a master using nothing but openings and strategic ideas from the 19-thirties. And beware the strategic and positional player who has not already passed through his "romantic" tactical phase!

And that is not all. The young player who is devoted to chess becomes a scholar in every sense of the word, in every way in which my friends in the sciences or my colleagues in the humanities understand it. The chess player learns a passion for books and acquires a sense of bibliography. He learns that to reach the level of A class or expert he must collect or consult a library. He must acquire periodicals giving the most up to date and accurate information, not only those in English, but also those in foreign languages. He gains a critical sense, learning when to trust analysis and when to distrust it. He must keep up with the latest opinions. It is certainly true that the expert chess player receives from his effort as good an idea of what constitutes the essence of scholarship as does a sophisticated graduate student at a good university. In addition, the effort involved requires great discipline of character. A chess tournament forces you to concentrate for hours at a time, up to ten or twelve hours per day. The character formation that a good chess player must undergo has been extensively studied by the Soviets, who have made chess a major vehicle of their international prestige, exploiting its nature as a universal language. The science of preparation has already been well defined by such Russian chess luminaries as Kotov and Botvinnik, and has been practiced with great success by the Russian grandmasters. Anyone adhering to their methods would benefit greatly, not only as a player, but also as a person. Their dicta can best be summed up in a Confucian saying: "the archer who misses target does not blame the arrow or the bow or the target, but turns and seeks the

cause of error within himself." This might seem to us obvious, but how many different and imaginative excuses have you heard from our fellow players as to the reason they lost a particular game? The Soviet masters, whose efforts receive both social approval and financial reward, seem free of most of those character defects which afflict some of our masters. The Russians boast to the world that their chess prowess is clear evidence of the advantages of the Soviet Marxist system. It seems to me significant, however, that chess is one of the art forms most heavily promoted in the Soviet Union. Chess by its nature is content free and apolitical. Unlike most other artists, the chess master has no way of making a political protest through his art. He must adopt more drastic means, as have Pachman and Korchnoi.

But what of the average player? As educators we are certainly willing to admit that the player who pursues the game seriously and achieves a measure of excellence, will certainly derive benefit. But we must also ask about the student who plays a few afternoons a week for a couple of years? Can we expect him to derive educational benefit from the game? For a long time this question was without a definitive answer, but a recent study, which was called to my attention by Harry Lyman of Boston's Boylston Chess Club, may give us the beginning of a serious answer.

The following is a summary of a study conducted by a Dr. Franck at a school in Kisangani, Zaire (Africa) which was made available for the experiment. The school selected was the Lisanga School, formerly called the Protestant University. The experiment was conducted during the school year of 1973-1974. Dr. Max Euwe reported it after his visit to Africa in Chess Informant number 19, and a complete copy of the work is available in French from F.I.D.E.

90 students, 16-18 years of age, were selected from the fourth-year class and distributed at random into two groups, experimental and control, of 45 students each. All of the students were given a battery of tests which included the Primary Mental Abilities test (PMA) in the French adaptation, the Differential Aptitude Test (DAT), the French-Canadian adaptation, the General Aptitude Tests Battery, and a Rorschach test.<sup>1</sup> The tests were administered to all of the students both before and after the course of the school year, except for the DAT which was administered only before the school year, and the Rorschach which was administered only after the school year. At the end of the first semester a partial retesting was made. The experimental group was given an obligatory chess course of two hours a week, with optional opportunity for play after school and during the Christmas and Easter vacations.

The experiment was intended to confirm two hypotheses about the influence of various abilities on chess skill, and conversely, about the influence of learning chess on the increase of certain abilities.

First hypothesis: The ability to learn chess is a function of a) spatial aptitude, b) perceptive speed, c) reasoning, d) creativity, and e) general intelligence. To play chess well must certainly involve a high level of one of these abilities. Which one is involved is not known.

Second hypothesis: Learning chess can influence the development of abilities in

one or more of the above five types. To what extent does chess playing contribute to the development of certain abilities? If it can be proved that it does, then the introduction of chess into the programs of secondary schools would be recommended, as it already has been in some countries. This hypothesis had not been the subject of any experimental study up to that time.

The first hypothesis would be confirmed by examining the results of the experimental group on the tests given at the beginning of session, and correlating them with the level of chess skill attained. The second hypothesis would be confirmed by seeing whether significant differences exist between the results of the experimental group and the results of the control group in the aptitude tests made at the end of the study.

Results: The first hypothesis was confirmed. There was a significant correlation between the ability to play chess well, and spatial, numerical, administrative-directional, and paper work abilities.<sup>2</sup> Other correlations obtained were all positive, but only the above were significantly so. This finding tends to show that ability in chess is not due to the presence in an individual of only one or two abilities, but that a large number of aptitudes all participate effectively in the play of chess. Chess utilizes all of the abilities of an individual.

The second hypothesis was confirmed for two aptitudes. It was found that learning chess had a positive influence on the development of both numerical and verbal aptitude. The authors of the study were puzzled by the latter result, wondering how chessplaying could influence the development of verbal ability. I am less surprised, since a previously published study shows that the ability to play chess correlates to the highest degree with the ability to learn a foreign language, not the ability for mathematics as is popularly thought. When the highly conceptual nature of chess (compared with Go, for example) is brought into account, this is even less surprising.

As I mentioned earlier, this second hypothesis had not been the subject of previous experimental study, and is highly significant for us in our attempt to find educational value in chess. The results of the experiment surpass our most extravagant hopes. After only a year of chess study, the students following the chess course showed a marked development of their verbal and numerical aptitudes, and this positive development was true for the majority of the chess students, not just for the better players. From this we may conclude that the introduction of chess as a regular elective course in our high schools would be of secure and positive benefit.

I should stress elective, because of some of the comments that the authors of the study had about their year long chess course. The students considered chess among the most difficult of their subjects, comparable in difficulty to mathematics. As the course progressed only the better player-students gave the course their active attention (a common situation in most classes!) As the school year progressed, absences from class increased and only about a quarter of the students participated in the optional afternoon and vacation activities. Certainly the obligatory nature of the course was a source of negative attitude reinforcement. In any event, the authors of the experiment express the opinion that chess should never be made a compulsory subject. It was noted that after the national sports event of importance (the victory of a popular soccer team) interest in chess increased, and half of the class responded with greater enthusiasm and attention to the lessons. In April the

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students requested a match with the University of Strasbourg (France). It appears that from a didactic point of view, emphasis upon the competitive nature of chess and its affinity with the more popular competitive activities is a most successful approach.

To sum up, I think that it is clear from the above study that the introduction of a chess course in a high school curriculum would be of positive benefit. Faced as we are with the continued decline of verbal and mathematical abilities among our high school students, chess offers itself to us as a remedy for those specific ills, and a very palatable remedy at that. Chess, we conclude, can serve as a positive educational influence upon our students, and can help them improve their verbal and mathematical skills. As such, it should be welcomed in the classroom. But as teachers we also know that although you may lead a student to chess, you can't make him think.