



The Goal Each Move

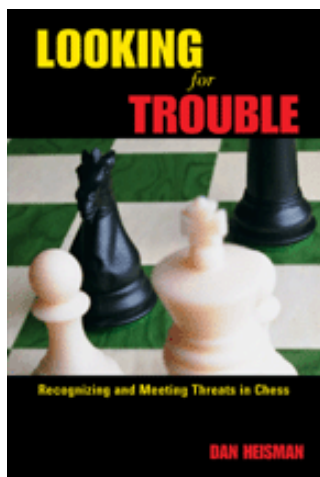
Quote of the Month: *“Many, if not most, of the people who play serious chess often don’t try to find the best move and, when they do, don’t know what that requires.”*

What are you doing when you are playing chess?

COLUMNISTS

Novice Nook

Dan Heisman



You are using your brain to think – to play a game whose moves reflect those thoughts. The goal is to use your skills to try to defeat your opponent. In that sense chess is a mental sport. Yes, it has elements of a fight, a science, and an art, too.

At the start of the game both players have the same overall “game goal”: winning the game (unless you are playing for a draw for some reason, such as needing a half-point to clinch first prize, etc).

Because serious, slow chess is played with a clock, in order to achieve that game goal, you face a series of “move goals” which, on each of your turns, is to *find the best move in the time available*. Unless you are already winning easily or in severe time trouble, you are not just trying to find a move that is reasonable.

Almost everyone knows that they should try to find the best move each an every move, but in practice most players often don’t do it! This amazing fact is a prominent reason why many weak players are not a lot better; they cannot advance no matter how many chess books they read or, to put it another way, no matter how much chess knowledge they acquire. They confuse chess knowledge with chess ability! Sure, if you learn more that *may* help your playing strength, but *if you don’t attempt to take your time and apply what you have learned to find the best move, move after move, you will never be a good player and will get severely diminishing returns on your study time*. After all, what good is learning something new if you are not going to apply it when needed?

There have been numerous occasions when students have showed me a move from their games, and I asked, “What made you think this was the best move?” They often mention things like “This move forced him to weaken a square” or “I threatened to win a pawn” but those answers are usually irrelevant!

In order to find the best move they had to prove, or at least attempt to show, that *their move is better than any move*! Whether the move they are considering - their candidate move - would entice a weakening of an opponent’s square or threaten to win a pawn is only an aspect *of that move*: in order to properly answer the question it is not sufficient for them to show why

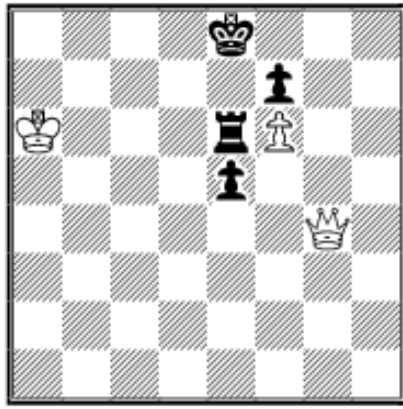
their move is good; instead they need to show that their move is better than all the others, and this requires at least some *comparisons*.

As a follow-up, I become more specific and ask: “For example, what made you think your move A was better than move B?” The usual answer is that they did not even consider move B! And even if move A *was* better than move B that does not mean that A was the best move - just that B was not! If the student’s game was played on the Internet and the clock indicated that they used (say) only 17 seconds on the move (which is fine in a five-minute game but potential disastrous in any critical position in a slow game), then I know they could not have compared move A to move B, much less considered moves C and D nor analyzed all the possible dangerous replies to A! If you don’t want to use almost all your time, play a faster game. Otherwise do your best and try to use most of your time finding the best moves you can.

I often use the clone argument: Suppose a player is cloned and plays a match against his clone. In each game he has to give the clone time odds, say 10 minutes to 2 hours. Assume both sides use almost all their time for the game. What percent of games would he win? Almost everyone answers anywhere from 0-10%. Suppose the player wins 5%. According to the rating tables, that is about a 500 rating point difference. So that means *if you play much too fast for the time limit you could be giving away as many as 500 rating points in your potential playing strength!* Keep in mind that enormous handicap next time you play a 60-minute game quickly and leave yourself more than 50 minutes at the end.

Let’s consider what it theoretically takes to try and find the best move. Suppose there are 30-40 moves from which to choose on each move, as in the average middlegame position. Then, in order to find the best move, you need to evaluate what will happen after each, and to choose the evaluation that is best for you. It is extremely important to note that you can only evaluate *positions*. When you “evaluate a move”, it really means to evaluate the likely positions that can occur from that move, as we will discuss later. But in order to evaluate which move is best, you need to assume that your opponent will be also trying to maximize his chances. *So it is not enough to look at each move and evaluate the position immediately after each of the 30-40 moves and to choose the evaluation that is best for you.* That would only work in the unlikely case that after each move, your opponent’s move can have no meaningful effect on the position! You need to consider your opponent’s most dangerous replies, like checks captures, and threats. Later we will also consider the obvious impracticality of considering all 30-40 moves.

Let’s take a couple of absurd examples to show that considering your opponent’s reply is usually necessary:

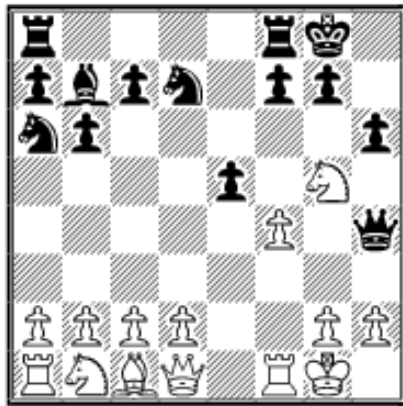


Without considering the opponent's reply, the move **1.Qxe6+** looks fantastic. It captures a Rook, gets you out of check, and puts the opponent in check.

Unfortunately, Black can reply **1...fxe6**, winning the Queen. However, without further analysis that may not be too bad, since the recapture doubles and isolates your opponent's pawns as well as gives you an advanced passed pawn. But with even a little more analysis you should be able to see that Black has a winning

endgame and **1.Qxe6+** is not a strong candidate move (Would you know how to win this game for Black after **1.Qxe6+**? If not, see the archived Novice Nook *K&P&? vs. K*).

You may laugh at this silly example, but in my instructing experience this is exactly what many players do. However they don't even realize this mistake because, in most positions, the consequences are more subtle than an obvious recapture losing material. Let's take another absurd example, but one that is not a capture:



Black has just played ...h6. Here the reply **1.g3** is superficially terrible: it leaves the Knight en prise, weakens the white squares in front of the King in a position where Black has a light-squared Bishop and White does not, and it neglects development with White already behind in that critical area. On all these "one-ply" issues – the ones that just look at the position after the move and ignore what is going to happen – **1.g3** just not make sense. However, **1.g3** is of course the right

move because it traps the black Queen and is the only move that gives White a winning position.

The obvious conclusion: You can't evaluate a move without considering your opponent's best reply (and also what you might be able to do about it!).

Therefore, it is worth repeating one of the fundamental truths about chess:

In slow games, your goal each move is usually to find the best move, and the principal way you do this is to be careful *each* move to:

1. **Identify what your opponent could do to you if you would "pass" – his threats,**
2. **Identify your candidate (reasonable) moves,**
3. **Analyze what would likely happen after (all) your candidate moves (*considering your opponent will try to play his best move, of course*), and**
4. **Evaluate the resulting positions, compare them, and choose the**

move that leads to the position that you feel is the best for you.

Let's call this the *Prime List* – a process for finding the best move. Most of the remainder of this *Novice Nook* is used to examine important aspects of the Prime List.

It takes great skill to do some the tasks in the Prime List *well*, especially the very difficult skills of

1. Properly analyzing difficult combinations (the part of chess laymen recognize as difficult);
2. Knowing in each line when it is safe to stop analyzing and start evaluating; and
3. Evaluating positions with the same amount of material and roughly equal King safety.

However, to follow the *process* each time you move (with sufficient time on your clock), even if you have to start by doing it poorly, *should* be easy! Nevertheless, my testing of hundreds of players revealed that, while strong players perform a thought process something like the Prime List consistently, hardly any weaker player does! (Some strong players don't think they do but, when questioned, actually are doing steps rapidly and somewhat unconsciously. For example, strong players often use deductive logic and their experience/judgment to dismiss the remainder of the candidate moves once they find one that is so good, it is a waste of time to look for anything better, but weaker players should be careful when doing this!) Players looking to improve who begin to take their time and use a process similar to the Prime List seem to have a much higher ceiling than the ones that don't. You can, too. Don't fool yourself into thinking you can't; it just takes a little care, practice, and willpower.

You don't have to play chess for years to implement at least the main aspects of a basic proper thought *process* – of course, it does take years to learn to recognize all the critical patterns and the proper way to play in the most commonly occurring positions (By the way, the best way to begin to understand this latter, general skill is first by recognition of basic tactical patterns and secondly not by memorizing openings sequences, but by understanding what to do with specific pawn structures, as per the books *Pawn Power in Chess* by Kmoch, *The Ideas Behind the Chess Openings* by Fine, and *Pawn Structure Chess* by Soltis).

Let's summarize with *Should Be Easy* and *Definitely Is Hard/Time-Consuming* lists:

Should Be Easy:

1. *Trying* to find the best move every move in every game (time permitting);
2. Taking almost all of your time each game;
3. Looking for not only what you can do, but what your opponent's last move is threatening, as well as any moves he could make after each of your candidate moves that might be dangerous (checks, captures, and

- threats); and
4. Learning general principles.

Hard/Time Consuming:

1. Taking time (usually years!) to learn to recognize tactical and other common/important patterns;
2. Learning how to combine your basic tactical information with deductive logic to solve much harder tactical problems;
3. Learning what kind of plans are feasible in which positions;
4. Learning how to *prioritize* general principles with regard to the position (i.e., state of the game); and
5. Learning to evaluate positions where the material is even and King safety is roughly the same, so you can choose candidate moves by finding the one that leads to the best position. This is highly correlative with #4!

While the extreme of not considering any opponent's replies to potential candidate moves does not work, of course neither does the other extreme of analyzing all possible sequences of moves for the remainder of the game. Except for late endgames, the number of possibilities is so astronomically high that it is impossible even for computers – and thank goodness for that, since if it were possible routinely calculate all the possible sequences (like in tic-tac-toe), chess would be “solved” and you would not be reading this column.

Occasionally, even during a slow game, your goal might *not* be to find the best move:

a) Suppose you are playing without a time delay or increment and both sides have *so little time that neither can possibly checkmate before one of your flag falls*. Then (assuming neither side can claim a “draw by insufficient losing chances”), it no longer matters what move you make – the player who moves fastest and whose opponent uses up all his time first will win. Even if just one player is sufficiently short on time or you have a position where any checkmate is extremely unlikely, then similar logic applies.

b) In the second case, suppose you are losing badly and, further, your opponent is good enough to easily win in the given position. Then, since all your moves clearly lose, rather than finding the best move, it is often more pertinent to find the move which gives your opponent the best chance to go wrong – in other words find a move – or plan - which gives you a chance to get back in the game by creating complications, setting a trap, etc. You have nothing to lose by playing a second-best, tricky move since you are lost already and normal resistance is just hopeless.

c) World Champion Alexander Alekhine wrote that the right idea is not always to directly find the best move. He felt that often you must find the best plan and then find the move that best fits this plan. While this is another reasonable way of looking at your “per-move” goal, theoretically the best move will be the one that implements the correct plan. Therefore, for the purposes of this article, we will assume you are looking for the best move and

the idea of finding the best plan is a method to help identify the best move.

In serious slow games there is a clock running and players have limited time. Therefore, the best you can do is use almost all your time and your practical move goal is then modified: it is *to find the best move(s) in the given time available*. Adding the dimension of time means:

1) Your important time management skills tell you how much time is reasonable to take for a move. This is a function of:

- a) The time control for the game,
- b) How many moves you have left in the time control (indefinitely many for “sudden death” time controls),
- c) How much time is left to the time control,
- d) Is there a time delay or increment,
- e) How critical is the move, and
- f) How difficult is the move?

While you do *not* have to consciously figure all of this out each move, but you should at least periodically look at the clock and the board and ask yourself “*Do I need to slow down or speed up on each remaining move to use almost all my time?*” and

2) You have to know *how* to find the best move possible *in that time*. A big subject, but one we have explored in some detail in previous *Novice Nooks* and will do so again below.

So again it comes down the fundamentals: when you are playing chess, you are really just playing a series of moves where you are trying to find the best move you can on each one, given the time constraints. The question remains, “With the time factor what does that require?”

First, you need to take a practical approach that can be applied in the available time. This means you must take the following shortcuts (vis the *Prime List* discussed earlier), depending upon this time:

- 1) You must identify any threats made by your opponent’s last move and only consider moves that either meet the threat, make an equal or greater one, or allow you to properly ignore it. Moves that just allow the threat(s) and give you no hope for something equal or better can be immediately discarded.
- 2) You should consider all (or as many as possible) of your moves that are checks, captures, and threats. If none of these are decisive, you also need to also consider moves that either increase the power of your army (such as ones that activate a dormant piece or take advantage of an opponent’s weakness) or ones that restrict your opponent’s army in some way.

3) For each candidate move you still must assume that your opponent is trying to play his best move. For example, you cannot just envision a move and then evaluate the position after that move is made if your opponent has something forcing that he can do on his move. You need to look at the most important tactical sequences until things “settle down” before you can evaluate them. A position that has no more consequential tactics is called *quiescent*. But chess is a rich game, and often *it is not possible in the given time available to evaluate all possible forcing continuations to quiescence*. The following two cases are worth noting:

a) If the position is unclear, use your judgment to decide how good the continuation is. Your judgment becomes more effective with more experience in similar positions. Therefore, the following advice is just common sense: *Players looking to improve should choose unclear continuations over ones they judge as about equal*. By doing so you improve your judgment and positions you previously judged unclear may eventually be given a more and more accurate assessment, and

b) If the potential gain from a sacrifice is less than the amount sacrificed, stop your analysis and evaluate the line as inadequate. For example, if you analyze a possible sacrifice of your Queen for an unclear attack and if checkmate looks impossible to force or the amount of material/compensation you can possibly win back is worth clearly less than a Queen, there is no sense analyzing the position further and you can dismiss the sacrifice as inadequate.

From all of the above we can see that with very few exceptions (like the late endgame or getting out of check), even in slow games a good player cannot and does not consider all his moves in order to arrive at the best one.

Let's consider the Prime List from the standpoint of evaluation. In a slow game a player attempts to find the best move by identifying the candidate/reasonable moves (“You can't play what you don't see”) and then looking just far enough ahead after each to determine how good that line (sequence of moves) is. He must determine whether the opponent has any forcing moves that will “kill” the line and if not, then, time permitting, what the opponent is likely to do. For example, suppose you considering a candidate move and your opponent has three “forcing” replies, two of which are threats and a third that is a capture. Then you need to look far enough in each of the three to determine how good those lines are for your opponent and which one he is likely to choose (i.e., the best one for him). *Then the sequence that includes his best reply is the likely one that will happen should you choose that candidate move, and you should assign an evaluation to your candidate move equal to how good your position is after the line starting with your opponent's best move*. In other words, for each candidate move you assume both sides will then make the best moves and that will tell you how good that line is for you.

But assuming that sequence of best moves is OK for you does *not* tell you to make that candidate move, although many beginners would make it without further thought. **When you see a good move, look for a better one – you are trying to find your best one.** You need to repeat the above thought sequence for each candidate move (as always considering candidate moves which are

forcing for you or which follow some sort of “plan” which is called for by the current position). Then once you figure out the most likely line, assign an evaluation to the position at the end of that line and *compare it to the position at the end of the “best” line you have found so far*. If the evaluation of the new line is better for you, then it becomes your “king of the hill” – the best move you have found so far. If not, the previous king of the hill (line and evaluation) stays in place. Once you have done this for all your reasonable moves, the one with the most appealing line (which can be as short as one ply if your opponent has nothing that worries you, or as long as many moves in a long forcing capturing or endgame sequence) becomes the move that you will play.

If you are not sure which line is best – and weaker players are often sure but wrong! - you need to evaluate your best possibilities carefully and weigh them against each other (and eventually improve your evaluation skills). Strong players, thanks to their experience and good judgment, can usually find what they think is the best move in most unfamiliar positions in less than ten minutes. When they take much longer on their move, they still found most of the lines in the first few minutes – it is the careful weighing of the sequences and the search for uncovered ideas to make sure that they have chosen the best one (and the searching for new ones if the ones found are unappealing) that takes so long! Even when a position is complicated, if there is one clearly best move, most good players will play it fairly quickly once they have proven to themselves that it is, indeed, best. You don’t always need to see everything that will happen – once you know a move is best, nothing else needs to be done this move!

So let’s summarize what is should be happening when you play chess: you should be making a series of practical “What is the best move?” decisions. Choosing the best move should involve consideration of “all” the reasonable moves and then analyzing the likely consequences of each. Each consequence needs to be evaluated to see how good the resultant position is. The most favorable evaluation is chosen, which then indicates which move is to be made. Sounds simple but, due to time restrictions, each player must carefully choose how to spend his time, which moves to consider, and how to evaluate the resultant positions. An important reminder: Don’t be left with lots of time on your clock or you probably were not trying your best!

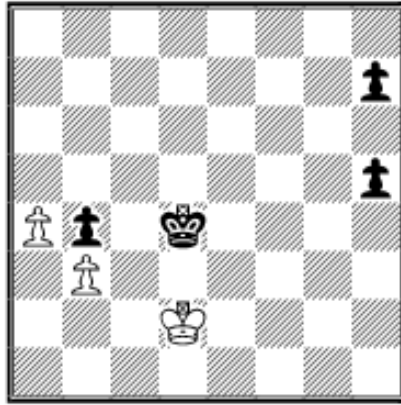
Players who do not budget time correctly are much weaker since they either:

1. Make hasty decisions based upon the positions after just the candidate moves and not after the likely sequence or,
2. Play too slowly and get into time trouble, and again later end up making poor decisions because they then need to play quickly to avoid losing on time - and losing on time is about the worst thing you can do!

You may not be able to always find the best move, but if you don’t even look for it, your odds of stumbling across it go way down. So next slow game, take your time and go get ‘em!

It’s Your Move!

A fun and helpful set of instructional books are GM Chris Ward's *The Improver's It's Your Move* and the much more difficult *It's Your Move*. I was using *Improver's* during a lesson and gave my student the following problem, with White to play:



Like all the problems in this series, you are given five different answers and are asked to choose the correct one. GM Ward's answer seems to imply that White is winning, and in the main two ideas White is, e.g.

1) 1.Ke2 Kc3? Pushing an h-pawn first is a little better, but ultimately makes no difference. 2.a5 Kxb3 3.a6 Kc2 4.a7 b3 5.a8Q b2 and White wins with a queen versus a b-pawn on the 7th rank, e.g.

6.Qc6+ Kb1 (6...Kb3 7.Qd5+ Kc2 8.Qd1+ Kc3 9.Qb1 wins easily. See the Novice Nook *Going to Sleep in the Endgame*) 7.Kd2 Ka2 8.Qa4+ Kb1 9.Kc3 and White wins quickly.

2) 1.Ke2 Kd5 Suppose Black does nothing. 2.Kf2 Kd4 3.Kg3 Kd5 4.Kh4 Kd4 5.Kxh5 Kd5 6.Kh6 Kd4 7.Kxh7 Kd5 8.Kg6 Kd4 9.Kf6 Kd5 10.Kf5 Kd4 11.Ke6 Kc5 12.Ke5 Kc6 13.Kd4 Kb6 14.Kc4 Ka5 15.Kc5 Black is in zugzwang and must lost his pawn and the game.

But all is not so simple! Suppose in line 2 Black plays for the distant opposition with 8...Kc6 or the direct opposition with 8...Ke6. Then White can make no progress: **8...Kc6 9.Kf6 Ke6 10.Kf5 Kd5 11.Kf4 Kd4 12.Kf3 Kd5** The diagonal opposition, but not 12...Kd3?? 13.a5 **13.Ke3 Ke5 14.Kd3 Kd5** and White is making no inroads, e.g. 15.Kc2 Kc6. In middlegame positions we often speak of "White is better" but in the late endgame it is either a win or a draw! In this case White is "better" because it is Black that has to be careful, but it is a draw!

Dan welcomes readers' questions. He is a full-time chess instructor and teaches on the ICC as *Phillytutor*.

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