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Novice Nook

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A Different Approach to Studying Tactics

This column contains a conjecture about learning tactics that I have never seen before, and which I think it is fairly important.

Tactics is almost undoubtedly the most productive single area that beginners and intermediates can study to improve their game - the more practice, the better.

Consider the following case: I had a student who was performing less well than expected. He was missing very basic tactical ideas in almost all his games, both for him and for his opponent. As an example, consider the following:
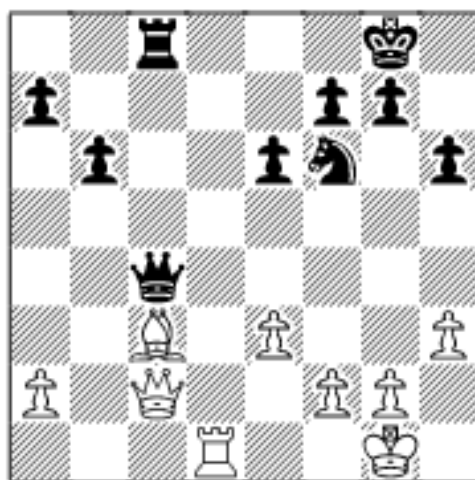
In the diagram my student is Black. He is up a pawn, it is his move, and the pin on the c-file will win him a piece. But, instead of studying all the tactical possibilities and saying to himself, "Hmm. If I win a piece, then the rest of the game should be relatively easy, so I should make sure I am really winning it," he immediately plays 1…Qxc3? allowing the basic removal-of-the-guard reply 2.Re8+, winning the Queen (which White also failed to play, thus bringing to mind the guideline: "Try to play stronger opponents – they will punish you for your mistakes, so you will learn to identify them and be less likely to make them."). Instead he should have played 1…Nd5, which wins the piece with an easy game.

After watching a whole bunch of his games containing incidents like this, I reminded him to keep up his tactical studies. He said that he was, but it was apparent to me that he wasn't doing as much as he should to be effective. He went on to say that the reason he was no longer studying the kind of basic problems he was missing was that he was getting a high percentage of the answers in his study book, so that additional study at that level did not seem worthwhile. However, from

reviewing his games, it was apparent that he was still missing those same simple tactics taught in his book (John Bain's excellent *Chess Tactics for Students*; besides Bain, another book with hundreds of elementary motifs is Al Wollum's *The Chess Tactics Workbook*), such as basic "removal of the guard" motifs.

I thought about this apparent contradiction and came to the following conclusion: *Just because you can solve a tactical problem does not necessarily mean that you will spot this tactic in a game.* While this is obvious, the reasons for this, and the remedy are not quite so clear. In a problem, you know (1) it is a problem; (2) there is a specific solution; and (3) you are just looking for a tactic to solve it. However, during a real game, you have to do much more than look for a tactic - in fact, you may not know that the tactic even exists, so you may not spend much energy looking for it (this leads a future article on *Recognizing the Seeds of Tactical Destruction*, but that is another story!)

Therefore, you have relatively little time available to spot a tactic. If you cannot find it quickly, you might not find it at all. So it is not just the ability to find the tactic that is important, it is also important to be able to do it quickly and efficiently, or else quickly conclude "there is no tactic".

So I told my student, "Go back and do the problems again until you can get most of the simple problems within a few seconds. It may be a little boring, but if you can recognize most of the basic tactical motifs: removal of the guard, double attack, effects of pins, etc. much faster, then you will start seeing a much higher percentage of them in your games."

Since then I have been giving this advice frequently, because it works. When I give it, many of my students ask, "What good is doing the same problem again and again? I will just learn to memorize the answer! I want to learn something, not memorize something."

Good question. My answer is "Do you know your name or do you have it memorized? How about 1+1=?"
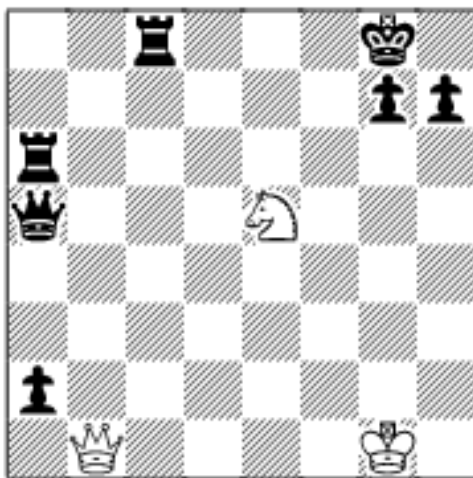
Philidor's Legacy. White to play and mate – Do you know the solution as well as 1+1=? (The solution isat the bottom of this article) Although almost anyone understands, and can intellectually explain to me *why* 1+1 =2, you don't have to go through that process each time you need to make that addition. Similarly, it is important to quickly recognize the most basic forms of common tactical motifs - *both* the problem and the solution - in game situations, not just be able to solve it when presented in problem form in a book. There is a strong link between "knowing" and "memorizing" simple ideas (in long-term memory). Some would say the difference is only semantics.
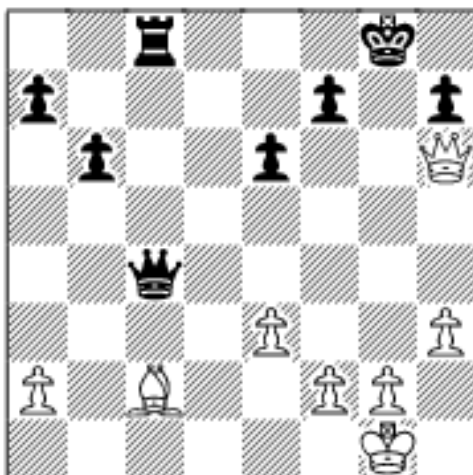
Here is another familiar tactical motif: White to play and mate in four. Did you already know this common pattern, or did you have to figure it out? The solution is at the bottom of this article.

I would go so far as to conjecture that more basic the tactical problem, the more beneficial it is to do it multiple times until you can do it quickly, while the more difficult the problem, the relatively less benefit it is to do it over and over. The reason is that more complex combinations usually consist of many basic tactical motifs, but not vice versa. And secondly, you see the basic tactics in many combinations throughout most games, while difficult ideas are more complex, and so each one is more unique, and occurs more rarely - in fact, you may never have seen one just like it before - only somewhat similar. Therefore, the capability to figure out these complex problems is more important than their rote recognition. And players who know very well basic tactics can figure out more difficult tactics, the requirement being a accurate and quick eye for basic tactical motifs. For example, I recently saw I tactical problem where the final four moves of the solution were almost identical to the previous diagram. So when I got that far, I just said to myself,

"That's it! White now mates." I did not have to figure out the rest of the problem because I already recognized that "basic" part of the problem.

So my conclusion is worth rephrasing: **The most important goal of studying tactics is to be able to spot the elementary motifs VERY quickly, so studying the most basic tactics over and over until you can recognize them almost instantly is likely the single best thing you can do when you begin studying chess!**

The good news is that my student figured out a way to make his basic tactics study more interesting (he cut the problems out of the Bain book so he could randomize them and remove them from their "tactical motif" identification) and then proceeded to go through them several more times until he could get almost all of them within a short period. Next he is graduating to a more difficult level of problem. Now his rating is starting to rise pretty steadily...

In this position, this same student had Black and it was his move. After some thought, he recognized the line clearance and his opponent – already down a piece - resigned after 1…Qxg3+ 2. hxg3 Nf3+ 3.Kg2 Nxd2. He was very proud of this and e-mailed me, requesting that I look at this position. I did. Of course, ever the diligent instructor, I said, "Might not 1…Qxe4 have be better?" There is always room for improvement…

The Four Levels of Tactics
Here is another simple idea involving tactics that I never seen written anywhere: One way to look at tactics is that there are four "levels" of piece safety, from most basic to most complex:

1. *En Prise* – Is a piece attacked but not guarded? (for either side)?

2. *Counting* – Is a piece adequately guarded? For example, if the attacking and defending pieces (including the attacked piece) are all worth the same, is the attacked piece guarded at least as many times as it is attacked?

3. *Tactical Motifs* – Individual motifs for winning material or mating, for example: pins, double attacks, removal of the guard, back-rank mates, skewers, promotion, etc.

4. *Combinations* – Combinations of tactical motifs! For example, a pin that sets up a double attack, or an interference move that allows a back-rank mate, etc.

This idea, while simplistic, helps make it easier for instructors to teach tactics and for students to understand how to study them.

Questions from Students:

Question Is doing tactical problems enough to improve your tactics?

Answer It is necessary, but not sufficient.

During a real game (and not just solving a problem in a book or on the computer), there are really three parts of tactical vision, and none can suffice without the others:

1. The general "find the best move" thinking process - of which looking for tactics is just a part;
2. Recognizing *The Seeds of Tactical Destruction* (unguarded or insufficiently guarded pieces, pieces that can be pinned or skewered, weak back rank, etc.) that highlights that there may be a tactical possibility; and
3. Finding a solution if there is a tactic, or deciding there is no tactic.

Doing a problem out of a book usually only addresses the first half of the third issue. If you are not already doing the first two parts correctly, you will get diminishing return on your tactical study. Let us quickly look at #1, since we have discussed in the past #2, and everyone is greatly familiar with the first half of number #3:

Without going into the kind of wonderful detail found in Adrian deGroot's *Thought and Choice in Chess* (a great book, but not for layman), here is the rough sequence of thoughts necessary to do #1 correctly after your opponent has made a move:

1. Was my opponent's move legal? (If not...)
2. Am I in check? (If so...)
3. Can I now just force checkmate with a sequence of checks? (Usually not, but if so...)
4. What about my opponent's move?
5. Is it safe? Can I just take it off?
6. Does it make any of his other pieces unsafe by opening up a line, or removing their guard?
7. Why did he do it? - What can he do now that he couldn't do

before? Did he create threats (you will likely need to use the *Seeds of Tactical Destruction* as applied to his move, not yet for your candidate moves)?

8. If I had threats, how did his move meet my threats?

9. What are the most pertinent factors in this position? What are my and my opponent's strengths and weaknesses? What should I be trying to do?

Only now would you continue to check the *Seeds of Tactical Destruction* and see if there are possibilities of tactics. If they indicate there are, then you should use your Tactical Solving Ability gained by doing the tactical problems to either find one or more tactics for yourself or figure out if your opponent has some tactics you need to prevent. Or perhaps the game is only in the early opening, where one still has to be tactically careful, but getting out all your pieces is much more likely your goal than spending lots of time looking for combinations that can't exist before the two sides are in conflict.

And finally, when you see a good move, put it in your pocket and look for a better one.

Obviously, it takes time to do this right. That is why the best quick players have already honed their skill by playing years of slow chess. In slow chess you learn to do things like this right, and only then are you able to take the kind of efficient shortcuts it takes to play proficient quick chess.

Do good players always use this sequence? No, of course not. They are so used to doing things right that they know which shortcuts to take. They know that tactics are so important that if their opponent creates a threat, analyzing the positional niceties might be a waste of time. But for beginners and aspiring intermediates, trying to find solve a tactical problem each time your opponent has made a move without doing the other things (such as recognizing whether such a tactic might remotely exist) can lead to a lot of frustration.

Question I am really fed up with working very hard in a chess game only to make a dumb move (I mean really dumb) when I am ahead. Today alone I had a win against a 1400+ in an on-line game in a rook v. bishop endgame and just let him take my rook. Just a second ago, I was a piece up and about three pawns against a 1700 in another on-line game and basically just let him take a piece of mine through an obvious pin.

Is it just a matter of training myself to do some heavy thinking on every move? Should I perhaps write down my moves on-line in pen before I make them to make myself stop and pause? Are there any

exercises I can do to train myself the best in this manner?

Answer Getting rid of big errors is a big part of moving up to intermediate level. In some cases it is pure "chess blindness," but this can be minimized:

First, one must consider the time limit. Dumb errors are common in very fast games, but should not be a consistent part of your slow games.

Never expect the move you have found to be the best - always be fearful you have overlooked something and take the time to do do a sanity check, where you write your move first, and then ask yourself "Is it insane? Can I just take a piece of his or he of mine? Am I missing a check, capture, or threat?" On-line, where you don't keep score you just have to "mimic" this sanity check: When you decide on a move, don't touch the mouse, but instead try to look at it with a fresh eye. So long as you have sufficient time this should catch 80% of these types of errors.

When you are winning, follow my "winning" guidelines, which are different thought processes than "even" or "behind", like "Think Defense First" or "Keep it Simple if Possible".

Other common sense things can help. In a quick time limit Rook vs. Bishop endgame, if you make a point of keeping your Rook on the opposite color of the Bishop, it can never be taken. Similar thing for keeping your Rook away from his King, or any piece two squares diagonally to a Knight.

Finally, more experience in slow games yields better board vision and a more consistent thinking process, so the chance of big errors gets less with more slow game practice. As you play more and can "see" more of the board at one time, you are more prone to catching these big errors earlier in your thought process.

Hope this helps. It is one thing to know what to do and quite another to do it regularly and with success.

Solution to the Two Problems:

Philidor's Legacy: 1. Qb3+ Kh8 (interpositions delay, but do not alter, the solution; if 1…Kf8 2.Qf7#) 2. Nf7+ Kg8 3.Nh6++ Kh8 4.Qg8+ Rxg8 5.Nf7#

Mate in Four: 1.Bxh7+ Kh8 2.Bg6+ Kg8 3.Qh7+ Kf8 4.Qxf7#

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