



Examples of Chess Logic

Quote of the Month: “Just because a move is good does not mean it is best.”

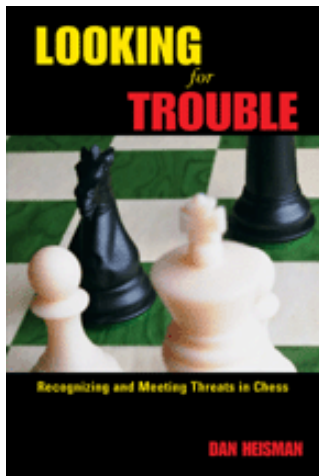
Chess requires the use of deductive logic in many situations. The most common occurs each move, during a player’s analysis, when one determines which move is best or which replies are forced. For example, to determine if a move is forced, you might ask yourself: “If I move there, does he *have* to answer *that*, since then he cannot win, or perhaps cannot draw?” However, logic plays a substantial part in other aspects of the game, and this month I would like to consider some situations that use such logic in “specific types of positions.”

COLUMNISTS

Novice Nook

Dan Heisman

Recognizing as many of these situations as possible, and knowing what you should typically do when they occur, puts important tools in your chess toolbox. Therefore, let’s list five principles that apply to such situations and then examine each in more detail:

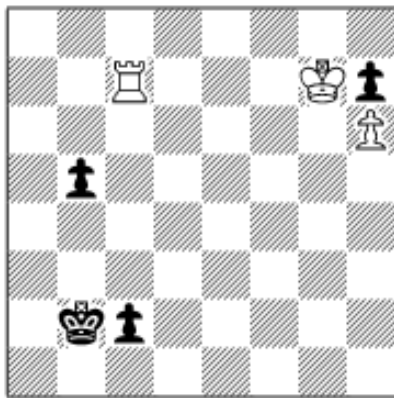


- Don’t capture a promoting piece until after it promotes.
- Don’t capture a pinned piece until the opponent attempts to unpin it.
- Don’t capture one of two forked pieces of equal value until one of them moves.
- Consider winning a tempo for a trapped piece, rather than capturing a pawn or ruining the pawn structure.
- Doing nothing is sometimes a great policy – it can be the only way to save or even win a game!

As with many other principles in chess, the above do not hold in every case. Be especially aware of the important unwritten caveat: “...unless there is a tactic!” If there is a tactic, then all bets are off!

1. Don’t capture a promoting piece until after it promotes

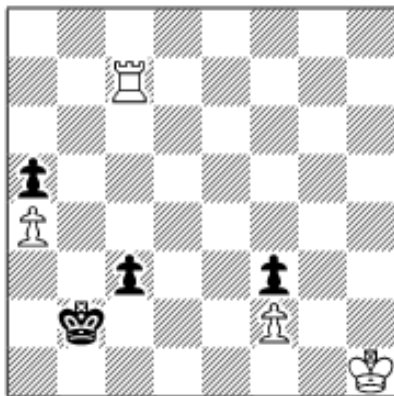
Consider the following position:



I once had a student who, in a similar position, played 1.Rxc2?? After the game I asked him why he made the capture immediately, instead of waiting until after the pawn promoted and, with the air of someone puzzled as to why I would ask a question with such an obvious answer, he replied: “Because I could not stop him from queening, so I had to do it!”

Yet his is the correct answer as to why one must *eventually* capture the pawn, not why one should do it *this move*! 1.Rxc2?? throws away the win, as after 1...Kxc2 2.Kxh7 b4 3.Kg7 b3 4.h7 b2 both players promote with a draw. Yet after the correct **1.Kxh7** White wins, e.g. **1...c1Q 2.Rxc1 Kxc1 3.Kg7 b4 4.h7 b3 5.h8Q** and White is a tempo ahead of the 1.Rxc2?? line, and can win with a queen against a knight pawn on the 7th rank.

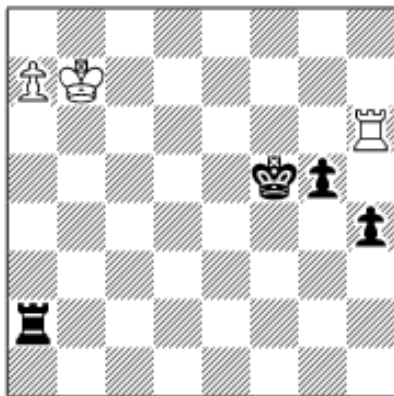
This “premature” capture can even cost you the game, much less a draw:



White can win by waiting before capturing the pawn: **1.Kh2 c2** or **1...Kb3 2.Kg3 Kxa4 3.Rxc3** etc. **2.Kg3 c1Q+ 3.Rxc1 Kxc1 4.Kxf3 Kb2 5.Ke4 Kb3 6.f4 Kxa4 7.f5 Kb3 8.f6 a4 9.f7 a3 10.f8Q a2** No better is **10...Kb2 11.Qb4+ Ka2 12.Kd4 zugzwang! 12...Ka1 13. Qxa3+ 11.Qf6!** or **11.Qh8**, and then **12.Qa1** For more on this type of easy win, refer to the Novice Nook *Going to Sleep in the Endgame* in the [ChessCafe Archives](#). However, White *loses* with 1.Rxc3?? Kxc3 2.Kh2 Kb4 and

Black then wins the race.

Of course, do **not** wait until the pawn promotes if the opponent is threatening to block your capture (a tactic!). Consider the following position, with Black to play:

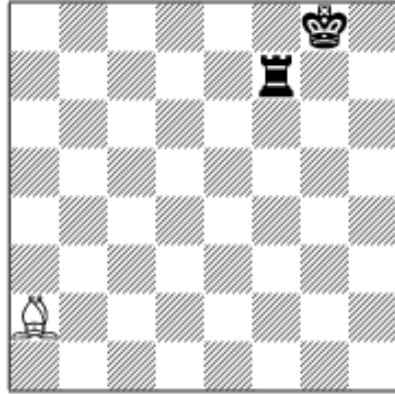


Here Black’s best chance is to give up the rook right away with **1...Rxa7!** Instead, if Black gets greedy and waits with 1...Kg4??, then 2.Ra6 will block Black’s rook and White will get a queen instead!

2. Don’t capture a pinned piece until the opponent attempts to unpin it

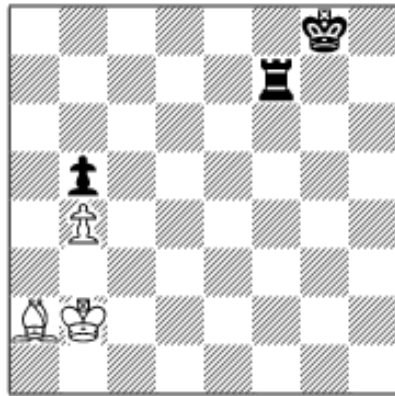
If an enemy piece is pinned, it cannot move. So, unless there is a looming tactic to interfere, why would you trade a piece that can move for one that cannot? In addition, if your opponent takes a tempo to get out of the pin, or threatens to do so in some favorable way, then you can

capture afterwards and gain that tempo since the pinned piece will still be there for one move!



In this example we isolate the pin (there are other pieces on the board!) to show that, all things being equal, White should play some constructive move other than 1.Bxf7+. After **1...constructive move 1...Kg7 2.Bxf7 Kxf7** it is White's move with the extra constructive move, while after **1.Bxf7+ Kxf7** the resulting position is identical, but it is White's move without the constructive move.

We can combine this idea with a promotion theme similar to the one shown earlier (see diagram):



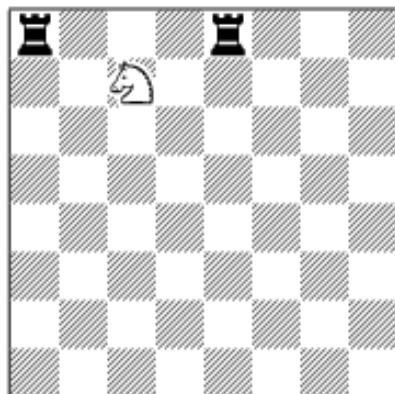
Just as in specific-situation #1, the extra tempo makes the difference. **1.Kc3 Kf8 2.Bxf7+ Kxf7 3.Kd4 Ke6 4.Kc5 Kd7 5.Kxb5 Kc7 6.Ka6** wins, but 1.Bxf7+?? Kxf7 2.Kc3 Ke6 3.Kd4 Kd6 draws.

This guideline is not just for the endgame; it can be applied at any time. As a reminder, if the opponent is threatening a maneuver that will render the pin worthless, such as moving the pinned or pinned-to piece with check, then of course

you must make the capture right away.

3. Don't capture one of two forked pieces of equal value until one of them moves

The logic with forked pieces is almost identical to the previous pinned-piece situation. Why not wait until your opponent has wasted a tempo to save one of the pieces?



We will assume both rooks are doing approximately the same amount of work and they are the only pieces guarding each other. As in the previous situation White should try to play some constructive move other than 1.Nxa8 or 1.Nxe8. After **1...constructive move 1...rook moves 2.knight takes other rook 2...rook takes knight**, it is White's move with the extra constructive move included, while after **1.knight takes either rook 1...rook takes knight**, it is White's move but he is down

a tempo compared to the previous line.

This waiting scheme can often turn into a game of “chicken” where Black refuses to move a rook and thus waste a tempo, and White refuses to capture a rook until one of them moves! Usually Black wins the battle, but loses the war as White is eventually forced to capture a rook before one of them makes a larger threat (a tactic!) and saves both.

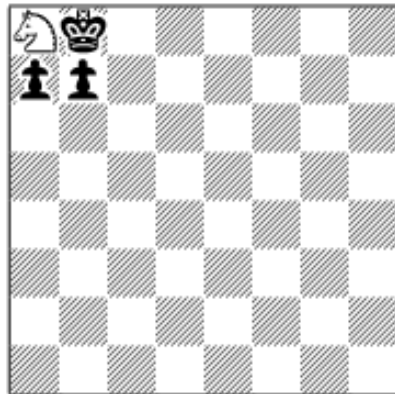
If both forked rooks are not of equal worth and you *cannot* delay capturing one, you should capture the **less** valuable one! If instead you capture the one doing *more*, the lesser one recaptures and takes its place as a valuable rook. So if you take the one doing less, then the one doing more has to recapture, relieving it from its more important duty!



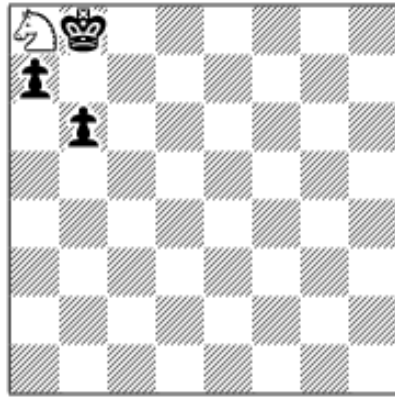
In this position White cannot delay capturing a rook, so *the knight should take the one which is doing nothing on a8* with **1.Nxa8**. That way if Black decides to recapture the knight with **1...Rxa8**, the rook is no longer pinning the bishop on the e-file, nor threatening ...Nf4.

4. Consider winning a tempo for a trapped piece, rather than capturing a pawn or ruining the pawn structure

This situation often occurs when a knight is trapped in the corner after capturing a rook. The knight cannot escape, so when it is attacked many weaker players *automatically* move it, capturing a pawn or ruining the opponent's pawn structure.

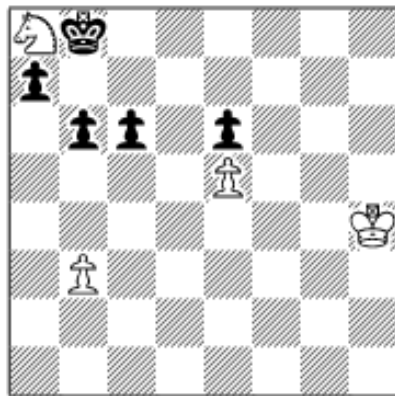


In the first diagram, weak players usually play **1.Nb6** so that after **1...axb6** Black doubles his b-pawns.



In the second they play 1.Nxb6 to get a pawn for the knight. But while these knight moves are *sometimes* correct, often it is much more important to leave the knight on a8 to force Black to waste a tempo and also to move his king further from the center. It is even more likely the tempo is worth more than just doubling the pawns.

As with the above situations, I tried to create a simple endgame example to show why this is so, but (**Benko Alert!!**) I accidentally created a beautiful problem that I am proud to first publish here at Chess Cafe.



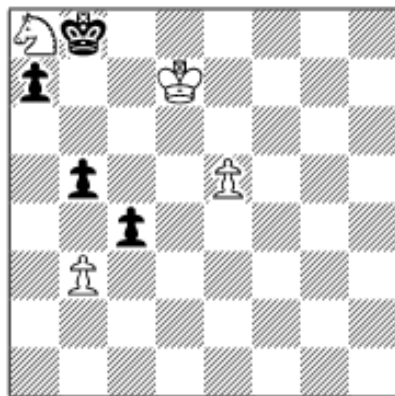
White to play and win Dan Heisman 2004

As intended, sacrificing the doomed knight on b6, as well as Black capturing it on a8 are bad. 1.Nxb6?? just goes into a bad endgame, as after 1...axb6 2.Kg5 Kc7 3.Kf6 (3.Kf4 c5 is no better) 3...Kd7 will win for Black. But **1.Kg5** wins via different motifs, as players of all levels should appreciate:

a) **1...Kxa8?** The failure of this move shows the thematic idea that capturing is clearly too slow **2.Kf6 c5** 2...Kb7 is even slower **3.Kxe6 b5** **4.Kd7 c4** **5.e6 c3** 5...cxb3 is no better **6.e7 c2** **7.e8Q+** wins easily.

b) **1...Kc8** **2.Kf7** **Kd7** **3.Nc7!** with the threat of 4.Nxe6 wins as 3...Kxc7 4.Kxe6 wins for White, or

c) **1...c5** This the most resilient defense **2.Kf6** **b5** **3.Kxe6** **c4** **4.Kd7**

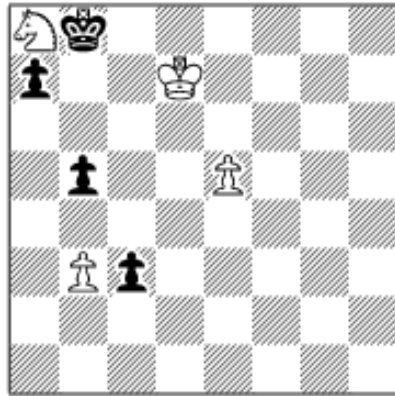


c1) **4...Kxa8?** This transposes into line "a": **5.e6 c3** **6.e7 c2** **7.e8Q+** wins easily.

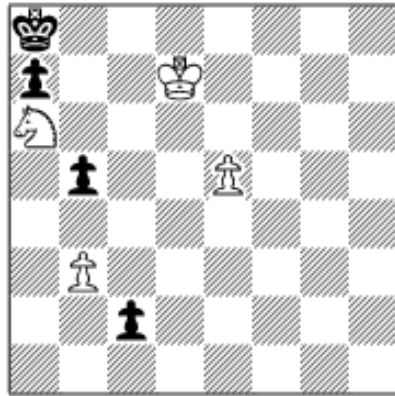
c2) **4...cxb3** Plausible, but Black's loss of coverage on the c8-square will prove fatal, in a pretty way: **5.e6 b2** **6.e7 b1Q** **7.e8Q+** **Kb7** **8.Qc8#**

c3) **4...c3** to guard the c8-square after promoting and prevent the mate that occurs in line c2. This is the critical line.

Now the extremely tempting 5.e6 c2 6.e7 c1Q 7.e8Q+ Kb7 is not correct. Black can hold the draw since the knight cannot escape. Try it and see! Yet how else to proceed?



5.Nc7!! c2 5...Kb7 6.Ne6! c2 (else 7.Nd4 wins) 7.Nc5+ Kb6 8.Nd3 stops the pawn and the e-pawn decides **6.Na6+ Ka8** 6...Kb7 7.Nc5+ Kb6 8.Nd3 again allows the formerly cornered knight to catch the c-pawn. But after 6...Ka8 how does White win?

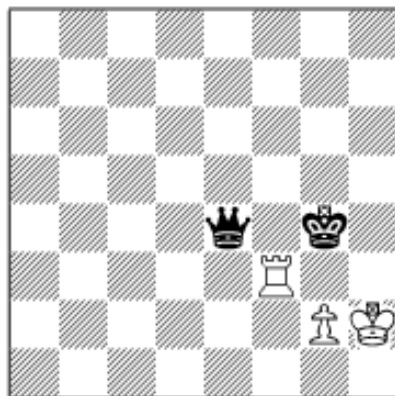


7.Kc8! Paradoxically, the king moves onto the promotion file and allows check!

7...c1Q+ 8.Nc7+ Qxc7 The new queen cannot last more than one move. **9.Kxc7 a5 10.e6** wins. There are many instructive ideas in this one problem, which was originally composed to be an easy example! (To be complete, it should be noted that before 4.Kd7 White could also win by inserting 4.bxc4 bxc4 with the same solution.)

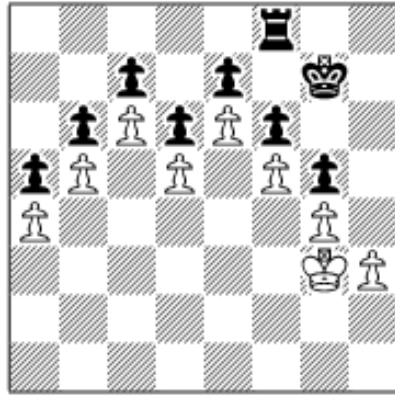
5. Doing nothing is sometimes a great policy – it can be the only way to save or even win a game!

Endgame books are full of positions where the weaker side can draw by setting up a “fortress” and basically just move back and forth. The most famous fortress might be:



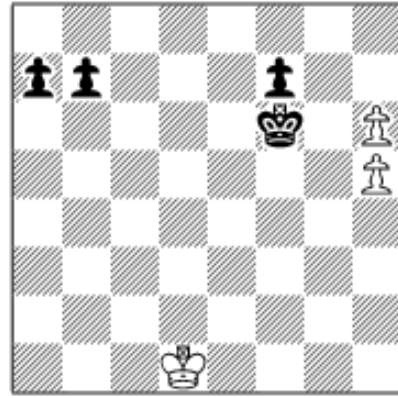
White just plays **Rf3-Rh3** and occasionally moves out of check. Black cannot get “inside” White’s fortress on the lower right nine squares. Attempts to do something more “active” for White can be disastrous! There are many examples of locked positions where the weaker side can draw since the stronger side cannot break through, but if the *weaker* side decides to play actively, that loses instantly. (see next diagram)

White can draw by shuffling his king back and forth on g3, g2, or h2 and, if necessary, eventually claiming the draw via the 50-move rule. However, any misguided attempt to be “active” by **1.h4??** will lose quickly, e.g.: **1...gxh4+ 2.Kxh4 Kh6 3.Kg3 Kg5 4.Kf3 Rh8** and Black wins easily. *In some cases your*



best move is to shuffle a piece, rather than move a pawn, and not destroy your position!

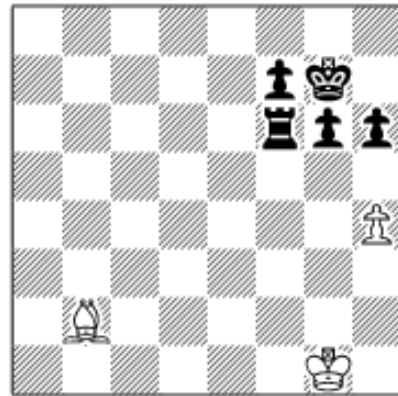
More interesting are positions where you wait until your opponent runs out of time and commits suicide. He gets into zugzwang and must make a losing move:



Here it does not matter whose move it is. Black dare not move

the king lest White promote. Yet after Black runs out of pawn moves, the king must move and White wins, so White can just put the king on the a- and b-files and let Black's game self-destruct.

Finally, here is another fairly well known position where White is to move and wants to just run Black out of moves: (see next diagram)



Superficially, by material count, White looks to be in trouble and is after the losing 1.Bxf6?? This is a great bonus example of specific situation #2: you should not capture pinned pieces prematurely! Instead a "benign nothing" is the best policy. White can do nothing constructive except wait, and this is a winning idea: **1.Kg2! h5** (1...g5 2.h5! is no better) **2.Kg3!** and Black must self-

destruct. Eventually Black loses not only his rook, but later all the pawns and the game since White's rook's pawn promotes on the proper color.

So next time you encounter one of these five situations, you will have a better "toolbox" on which to rely!

Dan welcomes readers' questions; he is a full-time instructor on the ICC as Phillytutor.



[TOP OF PAGE](#)



[HOME](#)



[COLUMNS](#)



[LINKS](#)



[ARCHIVES](#)



[ABOUT THE
CHESS CAFE](#)

[\[ChessCafe Home Page\]](#) [\[Book Review\]](#) [\[Bulletin Board\]](#) [\[Columnists\]](#)
[\[Endgame Study\]](#) [\[The Skittles Room\]](#) [\[Archives\]](#)
[\[Links\]](#) [\[Online Bookstore\]](#) [\[About ChessCafe\]](#) [\[Contact Us\]](#)

Copyright 2004 CyberCafes, LLC. All Rights Reserved.

"**The Chess Cafe®**" is a registered trademark of Russell Enterprises, Inc.