



Trading When Ahead or Behind

Quote of the Month: *When you are ahead in material, trade pieces, but not necessarily pawns.*

There are a number of corollaries to this month's quote, which we will examine below. For decisions about trading pawns when ahead, see [Trading Pawns When Ahead](#).

- When you are far enough ahead, you can even “sacrifice” material to increase the relative advantage of the pieces left on the board. For example, if you have a queen, a rook, and pawns and your opponent only has a rook and pawns, it is almost always easy to trade your queen for the rook and win with the extra rook.
- When you are losing, don't make “fair” trades of pieces, or otherwise favorable trades that increase your opponent's relative advantage. Note: *This is a very strong principle which takes precedence over many other principles.*
- When you are behind a knight or bishop, try to trade off all the pawns since the opponent cannot checkmate with just a knight or bishop, or even two knights.
- The more you are winning, the more a fair trade is beneficial; the more you are losing the more a fair trade is detrimental.

How does this work in practice? Let's consider a recent Internet Chess Club game played in the Team 4545 League:

White (1462) - Black (1459)
G45/45 seconds per move

1.e4 e5 2.Nf3 Nc6 3.d4 exd4 4.Nxd4 Bc5

A main line in the Scotch opening.

5.Nxc6

The Kasparov variation. The alternative is 5.Be3, developing another piece. In general, you don't want to move a piece multiple times to trade it for a piece that has made fewer moves. The net is a loss of time. *Of course, if you are following a book line, and the move has the grandmaster seal of approval, then you don't need an opening principle. Just make sure you have the proper position and move!*

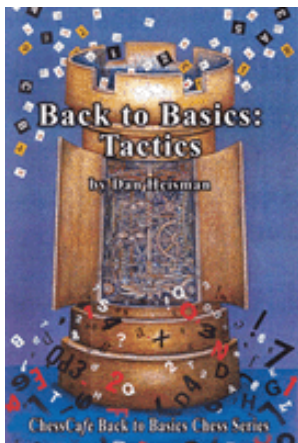
5...bxc6

It looks normal *to capture toward the center*, but 5...bxc6 is rarely played at higher levels, because Black has the *zwischenzug* 5...Qf6 (better than 5...dxc6), winning time by threatening mate on f2. Interestingly, at 14-ply 2007 World Computer Chess Champion [Rybka](#) rates 5...bxc6 slightly *better* than 5...Qf6, although both moves yield close to equality. This search clearly shows that non-book moves are not always mistakes! After 5...bxc6, although Black has doubled pawns, he has an additional pawn in the center (almost always beneficial) and a semi-open b-file for his rooks. Here the two tempos White loses (by trading a knight he has moved three times for a knight that has moved only once) counteracts the slight weakening of Black's pawn structure and the fact that Black has moved his e-pawn twice.

COLUMNISTS

Novice Nook

Dan Heisman



6.Bc4 Ne7?

Allowing a tactic. Instead, Black should consider the more aggressive 6...Qh4!, threatening both e4 and f2. In general, once the knight can no longer go to f3, the move ...Qg5 or ...Qh4 becomes a much stronger possibility. Of course, general principles say *not to move the queen out too early*, especially if it can be harassed and subject to loss of time. However, in this position the white knight has been traded, so it is no longer too early!

7.0-0?

White misses the possibility of 7.Bxf7+ Kxf7 8.Qh5+ and 9.Qxc5 winning a pawn. This kind of basic tactic is often missed by beginner and intermediate players, who don't always look for checks, captures, and threats, especially in the opening.

7...0-0

Now that the knight is also guarding c6 and d5, Black can safely play 7...d5 to hit the bishop.

8.Nc3 d6 9.Bg5 Be6 10.Qe2 Qd7 11.Rad1?

Now it is White who allows a tactic.

11...f6?

The skewer 11...Bg4 works, since 12.f3 is illegal. This type of double blunder (one player allows a subtle but easy tactic and the opponent misses it) is very common at this level. This is one reason why lower rated players lose so quickly to much higher rated players: because they allow such tactics, only the opponent doesn't miss them!

12.Bh4 Kh8

After 11...f6, 12...Bg4 is illegal, so Black unpins the bishop to make it a threat!

13.a3?

Not only missing the idea of 12...Kh8, but making a common "I don't know what to do, so I will push a pawn" move. But when you don't know what to do, it is rarely correct to push a pawn, since that is the only piece whose move you can't retract, thus it can make a permanent weakness! Better is 13.Qd3 or 13.Na4, with approximate equality.

13...Bg4

Here we have it. Black will be ahead the exchange, but White will have the bishop-pair. Rybka rates this position as about half a pawn better for Black, which is on the verge of winning by Rybka's modest evaluation criteria. Therefore, Black will want to trade – especially if it clears room for his rooks – and White should do everything possible to keep the pieces on the board and complicate.

14.Qd2 Bxd1 15.Rxd1 Rad8 16.Bg3 Ng6 17.Bd3

This makes it easier to trade off a bishop and lose the bishop-pair.

17...Ne5

After this, White should move the bishop on d3 again (the alternative is 18.b4!?) to

preserve the bishop-pair; instead, White goes against basic principles and mistakenly initiates the trade.

18.Bxe5 (?)

Students often make a move such as this because they “do not know what else to do.” Well, it’s easy – follow the principle of what to do when behind: anything other than trading is better!

18...fxe5

According to Rybka, Black’s advantage has almost doubled (!), because White has lost the bishop-pair and the f-file is open for Black’s major pieces

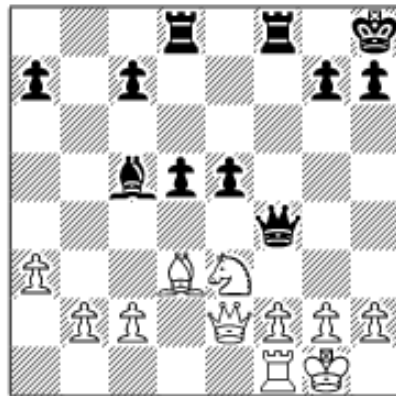
19.Rf1 Qf7 20.Nd1 Qf4

In accordance with general principles, this is a reasonable offer of a trade of queens. Black has a good game whether he trades queens or not, but trading queens usually makes things easier. Of course, if Black were a computer, then making things easier would not be as necessary! Notice that Black is utilizing a good technique: he puts his queen on an aggressive square and says, “Trade or back off and let my queen gain in power.” This is a win-win situation for him and almost always good play.

21.Qe2

White avoids a trade – this time.

21...d5 22.exd5 cxd5 23.Ne3?



Black to play

White is in trouble, but this move allows Black to trade off almost all the pieces! A classic case of trading off when behind; almost anything gives better long-term resistance.

23...Bxe3

Of course. Trade when ahead...

24.fxe3 Qxf1+

...and more...

25.Qxf1 Rxf1+

and more! This should make the win easy.

26.Bxf1



Black to play

Let’s take stock: Black is up the exchange with open lines for his rook. Perhaps trading off one pawn or two might accentuate that advantage but, in general, *Black wants to use his rook to win*



pawns, so he wants to avoid trading too many pawns. And, importantly, the king is worth about four pawns of fighting material, so Black must activate his king. Think of it this way: if White plays with his king and Black does not, then White is using six pawns, plus a king and bishop for a fighting value equivalent to thirteen pawns, while Black is only using his rook and six pawns

for a fighting value equivalent to eleven pawns. So, theoretically, White might even win!

26...a5

Black has many ways to win. He can play 26...Rf8, temporarily cutting off the white king from the action and keeping his rook on a square the opposite color of White's bishop (often a good idea when your opponent only has one bishop left). Or he can activate the king with 26...Kg8, heading for a central dark square, such as d6.

27.b4

White is properly hoping that Black will trade off not just a couple of pawns, but almost all of them!

27...axb4

One pawn traded. Not a big deal. This trade may even open up some more lines for the rook.

28.axb4 Rb8 29.b5 Rb6 30.c4 dxc4

That's two.

31.Bxc4 c6

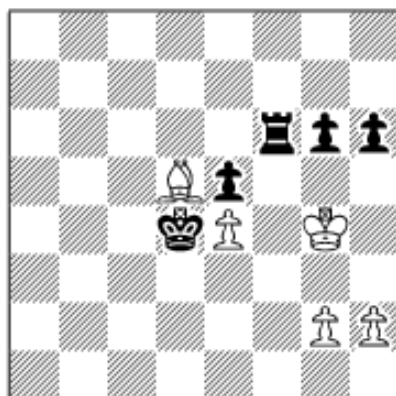
Three. Now all the pawns are on the kingside, so that makes it a little tougher. Much easier was 31...Rd6, followed by ...Rd2, ...g6, ...Kg7, and ...Kf6, etc.

32.bxc6 Rxc6 33.Bd5 Rd6

33...Rc2 was much more natural. In such positions you want to cut the opposing king (remember that four pawns value!) out of the action via a rank or file.

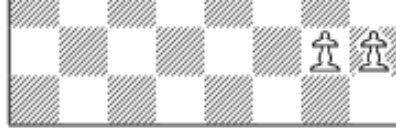
34.e4 g6 35.Kf2 Kg7 36.Kf3 Rf6+ 37.Kg4

In this kind of position you should use your imagination and try to visualize a winning idea. For example, Black can play 37...h6 to keep the white king out of g5, then march the king around to d4, and then:



Analysis Diagram: Black to play

...Rf4+, followed by ...Rxe4 Bxe4 Kxe4, with a winning king and pawn endgame. During Black's king march there is not much White could do but move his pieces back and forth and watch! Note that Black's key idea is to give back the exchange to win a pawn. Without that "sacrifice" the win would be much harder – or even impossible! So don't be afraid to give up your rook if you know



you can win anyway.

37...Rf4+ 38.Kg3 h5 39.h4 Kf6 40.Kh3 g5(?)

But now this starts to hurt. If Black dissolves too many pawns, it will be tough to win!

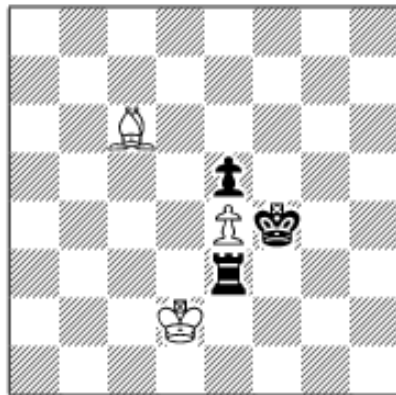
41.hxg5+ Kxg5 42.g3 Rg4?

In order to extricate the rook, Black must trade off yet another pair of pawns. In general, you don't want to put your pieces on squares where they have little mobility or allow the possibility they might become trapped. If there is still a win, it is no longer easy. One bridge too far, one pawn too many.

43.Bc6 Kh6 44.Bd5 Kg7 45.Bc6 Kf6 46.Bd5 Kg5 47.Bc6 h4

Inevitable, to free the rook.

48.gxh4+ Rxh4+ 49.Kg3 Rg4+ 50.Kf3 Rh4 51.Bd5 Rh3+ 52.Ke2 Kf4 53.Kd2 Re3 54. Bc6



Black to play

Now, in order to win, Black would have to sacrifice the rook for the e-pawn *and* get the opposition. This means that after ...Rxe4 Bxe4 Kxe4, Black would have to capture at a moment when White would not be able to get the opposition by ...Ke2. But how is this possible? Since, as long as the black king stays near e4, the white king can stay on any square adjacent to e2.

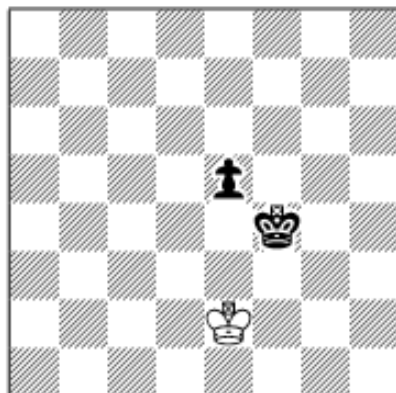
54...Rxe4(?)

Not even trying! At least Black could attempt to maneuver White's king away or test White to see if he understands how to be ready to retain the opposition after this sacrifice. I think that either Black was unaware that the sacrifice was a trivial draw, or that Black wasn't up to making an effort to figure out a win.

55.Bxe4 Kxe4 56.Ke2! =

And that's it. White gets the opposition. Game over. Draw. Well, at least it should be...

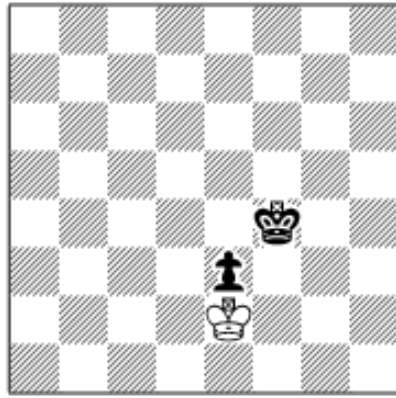
56...Kf4



White to play

57.Ke1??

What's this? White had plenty of time, yet "purposely" allows Black an easy win! After the game, White stated that he confused this situation (offensive king directly in front of its pawn; no opposition) with an entirely different one...



Analysis diagram: White to play

... where the offensive king is *not* in front, and remembered that “the king on the second rank has to go straight back.” So in the *analysis diagram* where the black king is not in front of the pawn, Ke1 is the only drawing move.

However, in the actual game, instead of figuring it out, White just “followed the rule” and went straight back into a loss. To preserve the draw White needs to keep the opposition with 57.Kf2!.

This shows that it only takes one bad move to lose a game, and you always have to assume it might be the next one! This vigilance is especially important late in the endgame, when the possibility of turning a win into a draw – or loss – with one move is very real.

57...Ke3

Now Black is winning for multiple reasons 1) In endgames with king and pawn vs. king, the side with the pawn always wins when it has a non rook’s pawn and the king gets two ranks in front of the pawn, 2) Black has the opposition and is in front of the pawn, or 3) Black’s king is on the third rank or less and is in front of the pawn. In the Novice Nook [King and Pawn vs. King](#), I call the third condition “tic-tac-toe.” Any of these three would be sufficient to win, and here Black has all three! If White had remembered even one of these conditions (instead of the wrong rule), he would have realized that 57.Ke1 would lose and probably found the draw with 57.Kf2!.

58.Kf1

I think at this point White realized he had done something terribly wrong.

58...Kd2 59.Kf2 e4 60.Kf1 e3 61.Kg2 e2 0-1

If you learn something, it is a good game...

Reader Question

My question concerns the “checks, captures, and threats” (cct’s for short) motif you mention so often. If I understand it correctly, after your opponent moves, you examine the new cct’s that are now available for the opponent. So now it’s my turn.

I look for candidate moves. Laying aside for a moment things like move triggers. I now check to see if my candidate move is safe by looking at the cct’s my opponent might be able to make on his next move. Here’s where my question comes in. Do I have to check the cct’s of every enemy piece, or only some of the pieces? Can my search for cct’s be limited to those pieces and pawns that can directly affect the piece I’m planning to move as my final candidate? If you could help me, it would be most appreciated.

Answer

In general, cct’s can occur three times during your thought process on any given move that requires analysis:

- The opponent’s previous move may be a capture or check, and you need to find *all* threats it generates (including discoveries, etc) – this may involve any affected square, not just the ones moved from or to,
- Your upcoming cct’s are at least initial candidates for your current move, and

- Your candidate move is not safe if the opponent has a cct in reply that cannot be met.

The answer to your question is both yes and no. Yes, you have to ensure that no cct's can defeat you; and no, you don't have to reanalyze all the possible moves by your opponent on each move, because in the intervening time from your previous move, only one move has been made – your opponent's. If neither your previous move nor his affected something (directly or indirectly), the carryover effect is that the unaffected squares are still the same (safe or unsafe).

For example, suppose you are White and play 1.e4 on your first move of the game. You know all your pieces are safe, so your queen's rook on a1 is safe both before and after 1.e4, since it is unaffected by the move, directly or indirectly. If your opponent then plays 1...e5, the rook on a1 must still be safe, since neither 1.e4 nor 1...e5 affects a1.

On the other hand, a *zwischenzug* must, by definition, carry over something, so when either player makes a *zwischenzug*, you must be aware of "carryover" threats or captures. If you are not sure a threat is affected by a move, or if a move generates a threat, then by all means re-check it; otherwise rechecking the same, unaffected, "safe" possibilities is just an enormous waste of time.

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

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