

Chess Principles and Common Sense



COLUMNISTS

Novice Nook

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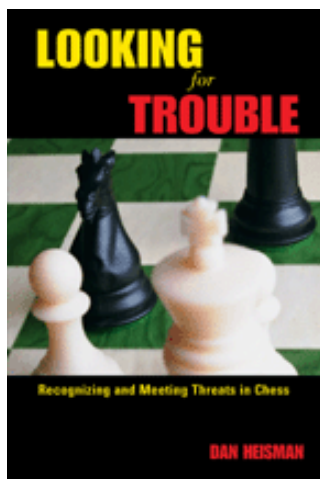
Quote of the Month: *You can't win without material to checkmate.*

Which of the following is 100% correct?

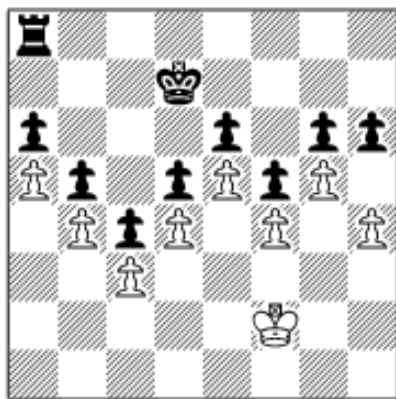
- When ahead material, trade.
- When ahead material, trade pieces.
- When ahead material, trade pieces, but not pawns.

None of the above! The problem with the third statement is the ambiguity of the word “not.” It could mean “never,” as in “never trade pawns when ahead material,” or it could mean “not the same as the previous subject,” as in “unlike pieces, you don’t necessarily trade pawns.” In the case of trading pawns, “...but not pawns” means “not necessarily,” and *not* “never trade pawns.” Therefore, a more accurate way to phrase this principle is *when you are ahead material then, everything else being equal, make fair or advantageous trades of pieces, but don’t necessarily trade pawns.*

It follows that in some positions, when you are ahead you actually *want* to trade pawns. This is encountered most often when both sides have many pawns and the defender has the possibility of locking the position. Here are some examples:



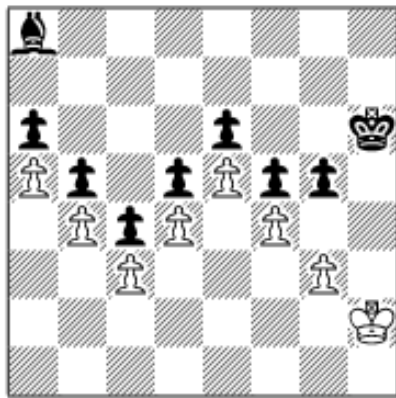
Position #1: Black to play



In this position, avoiding the trade of pawns by 1...h5?? is a monstrous mistake, because the position is completely locked and Black’s extra rook is meaningless. Instead, opening a line with **1...hxg5** wins.

A) 2.hxg5 Rh8 3.Kg2 If 3.Kg3, then 3...Rh1 penetrates and wins. **3...Rh4 4.Kg3 Rh1** wins.

B) 2.fxg5 Rh8 2...Rf8 followed by pushing the f-pawn also wins easily. **3.Kg3 f4+** Black offers a pawn to deflect the king. **4.Kxf4 4.Kh3 f3** eventually forces the same deflection, as White must abandon the h-pawn to stop the f-pawn. **4...Rxh4+** and Black again penetrates and wins, e.g. **5.Kg3 Rh1** and the c3-pawn will soon fall.

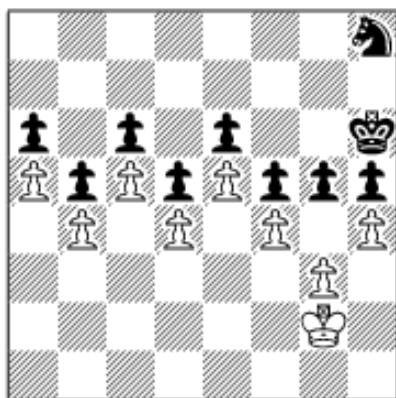
**Position #2: Black to play**

Again, locking the position with 1...g4?? will make the extra bishop meaningless and only draw. Therefore, the side ahead in material should trade pawns!

1...gxf4 2.gxf4 Bc6 White could draw if it were not for the bishop, as after 2...Kh5, White could just shuttle his king back and forth on h3 and g3 and keep the black king out. **3.Kh3 Be8 4.Kh4 Bh5 5.Kg3 Be2**

6.Kh4 If 6.Kf2, then 6...Kh5 and if 7.Kxe2 Kg4 8.Ke3 Kg3 wins. **6...Bf1** White is getting into *zugzwang* and must let the black king in! **7.Kg3 Kh5 8.Kf3** Or 8.Kf2 Kg4 similar to the previous note. **8...Kh3 9.Kf2 Kg4 10.Ke3** Again, 10.Kxf1 Kg4 wins. **10...Bh3** and Black wins easily.

Even the “jumpy” knight often needs the king to help:

**Position #3: Black to play**

Once again 1...g4? is bad, as White can try to position his king to defend against knight sacrifices. For example, if the knight maneuvers to the queenside (f7-d8-b7), then White can also move his king to stop ...Nxa5 or ...Nxc5 from breaking through. In other words, White can shuffle his king to whichever side the knight goes to prevent a winning breakthrough. If there is a win after 1...g4, it is difficult to find!

But after the simple **1...gxf4**, Black wins easily by opening lines and bringing his knight to g6. For instance, after **2.gxf4 Ng6 3.Kg3 Kg7**, White is in *zugzwang*. The white king must give way and Black wins easily: **4.Kf3 Nxb4+ 5.Kg3 Ng6 6.Kf3 h4 7.Ke3 Kh5 8.Kf3 Ne7** *Zugzwang* again. **9.Kf2 Kg4** etc.

So from the above we can formulate a principle about when to trade pawns:

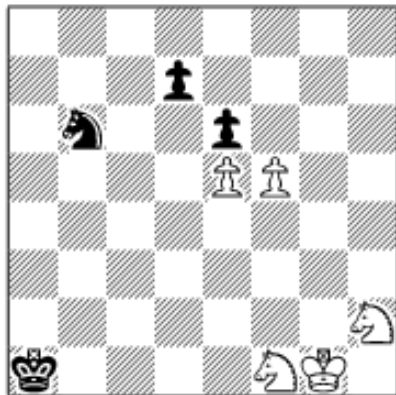
If you are ahead in material and there are so many pawns that your opponent may have the ability to lock up the position and make it difficult – or impossible – to win, then trade pawns to open lines for your extra power to be effective.

We have thus determined when it is clearly good to trade. At the other end of the spectrum – with very few pawns – we can just as easily find positions where it is clearly terrible to trade. Why? Because you need mating material to win.

**Position #4: White to play**

This is clear. If one “trades when ahead,” then 1.exd7?? Nxd7 leads to a draw, as White cannot force a checkmate with two knights vs. a king and one knight, barring exceptional circumstances. Even if White had a knight on e5, instead of h2, then 1.exd7?? Nxd7 2.Nxd7 would still be a draw. Therefore, White must keep his pawn, so the only winning move is **1.e7** and White will promote.

As can be shown with many endgame positions, we can extend this idea “back” in time to show that trading in a similar position with more pawns is often a bad mistake.

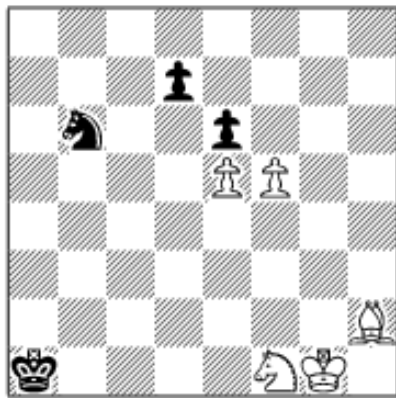
**Position #5: White to play**

Again, White would be making a big mistake to trade when ahead, as after 1.fxe6? dxe6, White is helpless to stop 2...Nd7 and 3...Nxe5. White cannot force checkmate with just two knights. (Yes, I know two knights against one pawn can sometimes win, but that’s making the concept too advanced!) Instead, the easy **1.f6** preserves the passed pawn and wins.

From the above examples we now know where the maxim “When ahead in material, trade pieces but not pawns” applies, but this is only clearly true if there is a danger that you might run out of mating material, so we can postulate:

When ahead in material do not exchange pawns if there is any danger that you might not be able to checkmate because of a lack of mating material.

For example, let’s change the position from the previous example by putting a bishop on h2.

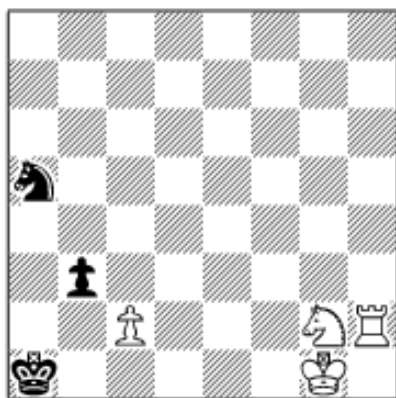
**Position #6: White to play**

Now 1.fxe6 dxe6 is, theoretically, not as bad, as after 2...Nd7 and 3...Nxe5, White can play 4.Bxe5 and eventually snap up the e6-pawn and win with bishop and knight vs. king. But that is much harder than just playing **1.f6** and going for a queen. The reply 1...d6, to allow ...Nd7, is hopeless. So, from a practical standpoint, 1.fxe6 has to deserve a question mark for making the win more difficult.

Another corollary of the pawn trade principle is:

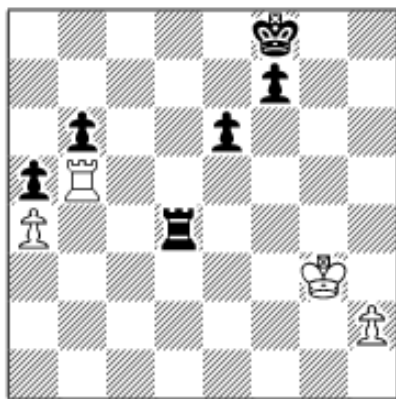
If you are ahead a rook or more (mating material by itself), then preserving the pawns on the board by avoiding trades is not as necessary as it would be if the material imbalance was not so great.

This makes sense because, even without the pawns, the player ahead by that much can usually win by trading into a simplified position and checkmating with the remaining material.

**Position #7: White to play**

Here, it is logical for White to trade off Black's dangerous passed pawn by **1.cxb3 Nxb3**, because White is ahead a rook and should win easily. Note that even if White were only ahead by a knight instead of a rook, it might be still necessary to trade off this pawn to avoid losing! Getting rid of your opponent's most dangerous piece is usually a good idea!

Finally, let's take a practical example, a recent club game where black has rook and four pawns vs. rook and two pawns. Thus, neither of the previously stated guidelines for very few or very many pawns may apply.

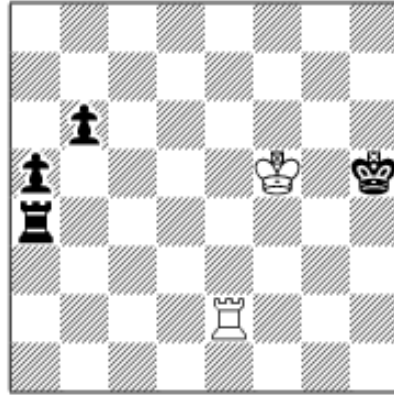
**Position #8: Black to play**

After the game, Black stated that at this point he remembered the principle: "When ahead, trade pieces but not pawns," and misinterpreted this as "don't trade pawns"! Therefore, he avoided any trades with the passive 1...Rd6?. However, this allowed White to hold up two queenside pawns with only one of his own, making the win more difficult. Trading pawns with 1...Rxa4 2.Rxb6 is much better, as Black

then has a third passed pawn. Moreover, immediately after the game, club

member Will Moyer pointed out that best of all is 1...Rb4!, when White cannot play 2.Rxb4 axb4 because the passed b-pawn is “outside the square” of the white king and promotes easily. Moreover, after 1...Rb4, Black threatens to win easily by *making an even trade of pieces when ahead*. If White avoids the trade by 2.Rg5, then 2...Rxa4 wins yet another pawn for nothing.

The conclusion of this endgame is instructive:



Position #9: Black to play

Black has a very awkward king, but can try 1...b5 (not 1...Ra1?? 2.Rh2#). White can attempt to hold with 2.Rb2 Rg4 (2...b4?? 3.Rh2#) 3.Rh2+ (3.Rxb5? Rg5+) 3...Rh4 4.Rb2. However, Black can play for a win with 4...b4 or 4...Kh6. For example, 4...b4 5.Ra2 Kh6. At this point, 6.Rxa5? again fails to the skewer 6...Rg5+, but, instead of 6.Rxa5?, White should play 6.Kf6 and now 6...Rh5 holds the pawn.

Yet the win is still not trivial. This idea was much too difficult for me to find while observing the rapid pace of the game in progress!

In the game, Black played **1...Rc4?** and White missed an easier draw with the cute 2.Rh2+! Rh4 3.Rb2 when, if Black tries to avoid repetition of position with 3...Rb4 4.Rxb4 axb4, then 5.Ke4 draws, as does 3...a4 4.Rxb6. This draw I did see! Instead White ended up losing after **2.Rb2? Rc5+ 3.Ke6(?) b5 4.Ra2 a4**, etc.

So Black avoided trading pawns when ahead – incorrectly – got a more difficult game, but eventually won because White did not play the best defense. The meta-principle of this game is:

If you are going to make a move on general principles, make sure that either your understanding of the principle is correct or your position is not an exception!

The subject of trading when ahead is more complex than can be covered in just one article. We need another to discuss the exceptions to the axiom: “Make fair trades of pieces when ahead.”

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

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