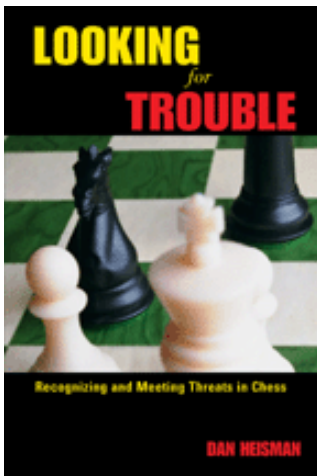




COLUMNISTS

Novice Nook

Dan Heisman



The Principle of Symmetry

Quote of the Month: “In a chess fight, it is best to eliminate your opponent’s advantages in order to eradicate his counterplay.”

What do the following twelve criteria have in common?

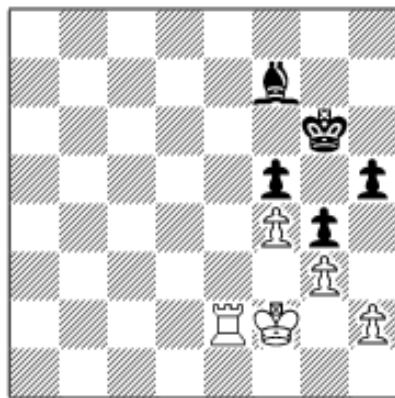
1. When you are winning, keep the position simple.
2. If you are going to win material, it is usually better to win a pawn than to win the exchange for a pawn; similarly, it is better to win a piece than to win a queen for two pieces.
3. When you are winning an endgame, you should generally avoid pawn promotion races, unless you are 100% positive you will win.
4. If you win a pawn (not “accept a gambit”!) before either side has castled, it is usually better to castle on the same side as your opponent. If you lose material in the opening, try to castle on the opposite side.
5. If you are ahead a pawn in the endgame, with pawns on both sides of the board; in general, it is better to move your king to the same side as your opponent’s king.
6. If you are ahead an exchange in the endgame, it is better to have a position where no pawns are passed, than it is to have a position where most or all are passed pawns.
7. If you are way ahead in material, you can often “sacrifice” material to simplify. For example, if you have a queen and rook for just a rook, it is usually a good idea to exchange your queen for your opponent’s rook.
8. If you can win a pawn in a bad position, where the material is even, then take the pawn, even when winning that pawn costs you some time.
9. When you are winning, general symmetry (a balance in the position) is better than asymmetry.
10. If the game is even, and you want to win, create asymmetry and imbalance.
11. As an answer to 1.e4, the Sicilian Defense is more popular among grandmasters, especially those playing for a win.
12. If you play a stronger player, you have more chances if you play someone

that does some things better than you and some things worse, rather than someone that does everything at least as well, and some things better.

Answer: All of these can be derived from what I call the *Principle of Symmetry*. In general, it is better to have everything your opponent has and more, than an imbalance where you have more in some areas but less in others. For example, if your opponent has X, but you have X as well as Y, then that is better than you having more X and him having more Y. So the opposite of the *Principle of Symmetry* is the *Principle of Imbalance*. If you have less (for example, are behind in material), it is better to have something that your opponent does not – something on which you can “hang your hat.”

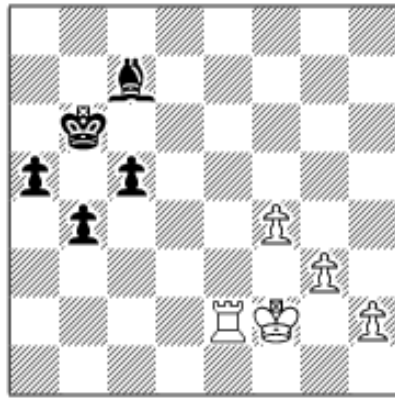
Let's examine #2 from the above list: you have the option of either winning a pawn or winning the exchange (bishop or knight for rook) for a pawn. Although the latter is generally considered to be somewhat inferior in terms of material advantage (about $\frac{3}{4}$ pawn as opposed to 1), you should usually shun this. If you win the exchange and also give up a pawn, your opponent will have one more piece on the board (e.g., a knight and pawn versus your rook) and can create potential problems by locking the position (where the knight is comparatively strong) or creating an extra passed pawn. But, all things being equal, it is much better to just be ahead a pawn, where you have the only advantage and your opponent has no theoretical counterplay. This principle would apply even more so, if you had the choice between winning a piece or winning a queen for two pieces. The former should be an easy win; the latter can sometimes be tricky.

Let's show how item #1 is derived from this principle. The complications are a form of compensation for your opponent. If the losing player misplays the complications they are risking very little, because they were losing anyway. But if the player who is winning misplays the position, they might actually lose or only draw. Let's take that one step further: from the inferior side's perspective, it is usually better to be losing by the equivalent of two pawns with a very complicated game, than it is to be down one pawn with no play at all. We can apply this logic to both sides: since action is good for one player and bad for the other, it follows that when you are losing you want to play aggressively, complicate, and/or attack.



Black to Play

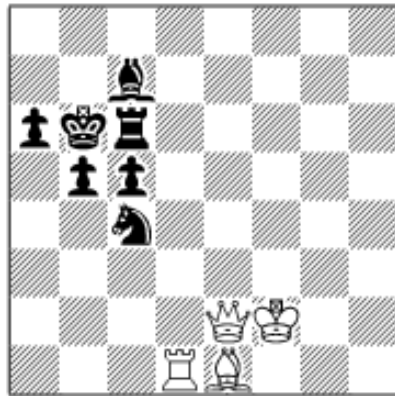
In this position, White will win easily, if is experienced enough to realize that all he needs to do is to attack the f-pawn twice. He can force the black king away, and then sacrifice the exchange for a pawn. But, in the next diagram, let's mirror Black's pieces over to the queenside, then we get quite a different story:



Black to Play

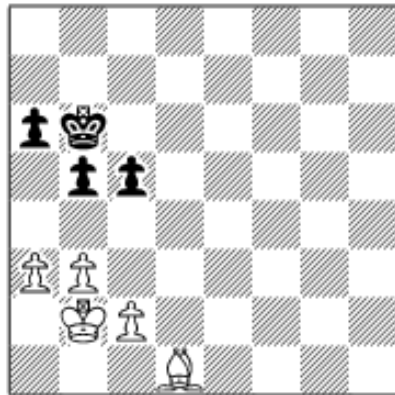
Now we have a race where the advanced black pawns, which were formerly blockaded on the kingside, are now extremely dangerous. A race favors the player who is behind in material! The fact that Black is still down the exchange is much less meaningful, and Black has more than enough compensation. *Even if we move the black pawns back a tempo or two to make the race more even*, the position is

dynamic and complicated – in practice someone would likely win – and it could be Black, especially if White misplays it!



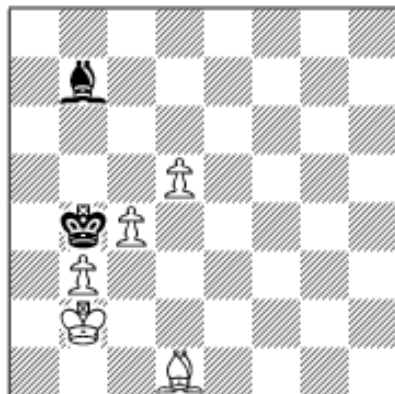
White to Play

Here White is ahead a queen for a knight and three pawns – about a piece worth of material. But the win will take plenty of care because of the great imbalance in the position.



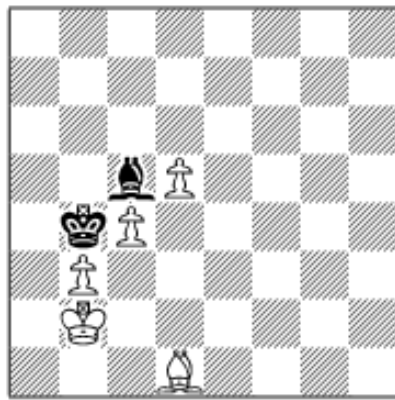
White to Play

In contrast, this position has the same black pawn structure, but opposed by symmetric pawns. White's extra material, *although similar in scope to the previous example*, combines with the symmetric nature of the position (and thus lack of Black potential threats) to make this an easy win.



White to Play

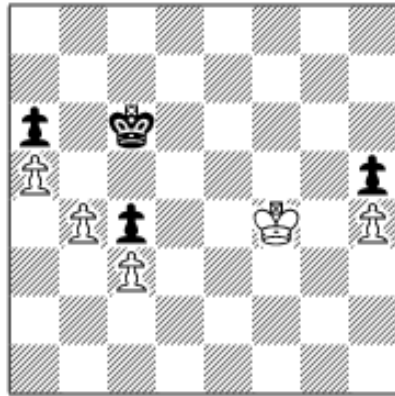
This position, with White ahead three pawns, is a fairly easy win. But unbalance the position by giving Black an opposite colored bishop instead, and things are not so easy!



White to Play

If White brings his king to the kingside (e.g. Kf5), Black can – carefully – move his king to d6.

Even in asymmetric positions, the player ahead often wants to balance matters as much as he can to win as easily as possible, *if he can win without extreme imbalances.*



White to Play

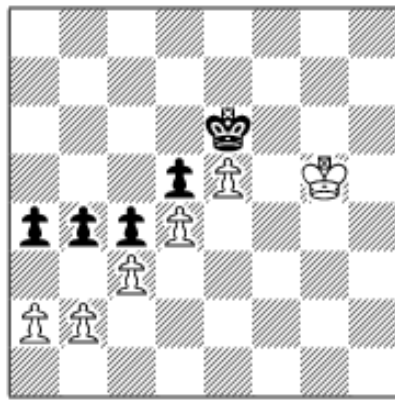
In this position, White is winning, but has to decide which side to move his king. Of course, *since this decision is critical, only calculation should decide*, but suppose you were in a speed game and had to move quickly using just principles? In that case, the theory of imbalance would apply. Black wants a race (imbalance) and White does not, so the white king, in these types of positions, generally wants to go to the

same side of the board as the black king.

In the game, White chose the race, and the game continued **48.Kg5 Kb5 49.Kxh5 Ka4 50.Kg4 Kb3 51.b5 axb5 52.a6 Kxc3 53.a7 b4 54.a8=Q b3**, and now White had to figure out how to stop the connected passed pawns with his queen, which he did, and won.

But White could have made things *much* easier for himself by following the Principle of Symmetry and avoiding imbalance. White should keep his king on the same side as the black king. After **48.Ke5** or **48.Ke4 48...Kb5 49.Kd5**, he would be winning the c-pawn and have two extra pawns on the queenside – no race, no complications, no problem!

Another derivative of the Principle of Symmetry is that the side ahead is always seeking symmetry (where the “ahead” part is clearly the difference), while the side behind is seeking imbalance, where both sides have pros and cons. In a king and pawn endgame, if you have three pawns to your opponent’s two, it is better to have three pawns against two on one side of the board, than it is to have all the pawns on opposite sides of the board (a race!). Consider the following position, which occurred in a student’s game:

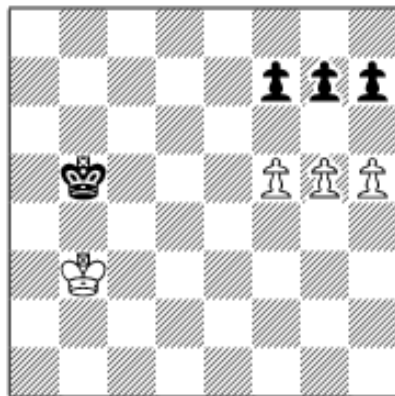


White to Play

Since White has an extra pawn on the kingside, he wants all the play to be there, and therefore should seek symmetry on the queenside. Therefore, the proper move is **1.a3!**. No matter what Black plays, the queenside will remain symmetrical and White can win on the kingside. Play might continue: **1...bxa3 2.bxa3 Ke7 3.Kf5 Kf7 4.e6+ Ke7 5.Ke5 Ke8 6.Kxd5** etc.

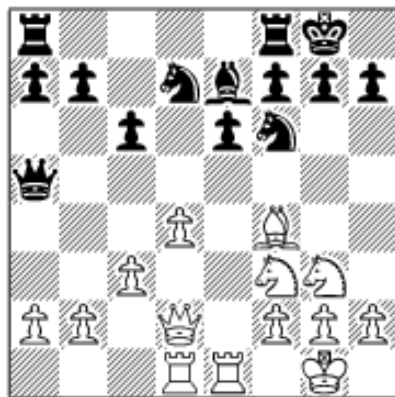
Instead, White thought that he could win by zugzwang, so he just waited for Black to abandon e6 by playing **1.Kf4??**. Black followed the Principle of Imbalance and played **1...a3!**, ensuring a win despite his pawn deficit, e.g. **2.bxa3 b3! But not 2...bxc3?? 3.Ke3 Or 2.b3 cxb3 3.axb3 a2**. So White, by allowing imbalance, turned a win into a loss in one move!

The famous three-pawn problem requires the winner to create asymmetry – symmetry is good for Black because the black king is closer. Therefore, all things being equal, Black wants the pawns in balance until the king can come to the rescue:



White to Play

White needs asymmetry to win, so moves like **1.h6? g6 2.fxg6 fxg6** (symmetry) don't work – in fact *Black* wins by approaching with his king to capture the white pawns. Instead he wins with **1.g6 hxg6 2.f6! gxf6 3.h6** or **1.g6 fxg6 2.h6! gxh6 3.f6**. If **1.g6 hxg6 2.fxg6?** Black creates symmetry and holds with **2...fxg6**.



Black to play

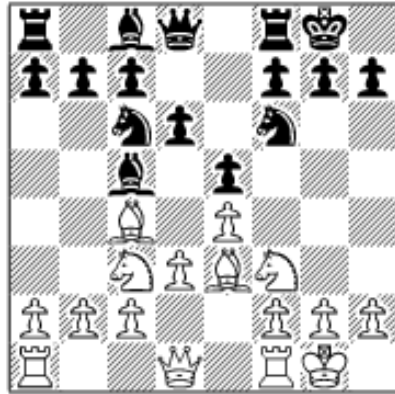
In this position, Black is behind in development and space, and so chose **1...Rad8**. But this was a major mistake; instead he should play the bold **1...Qxa2!** It is true that when you are behind in development you generally should not waste more time snatching pawns – *and* this move also jeopardizes his queen – but here the position is relatively closed and the queen can escape. By winning a pawn,

Black sends a major psychological message to White: “You may be ahead in some areas, but I am ahead material! Therefore, if you want to win, you have to act, or I will eventually trade off and win the endgame.” Since White is better, Black wants an imbalance to apply some counter-pressure. In the final example of the Novice Nook [When Is A King Safe?](#), similar logic supported

the capture of the bishop by 27...Qxe2.

Of course, if everything is balanced, then *you have no advantages*, and you want to create imbalances, so you can take advantage of your strengths and your opponent's weaknesses. That is quite different from the previous examples, where *you already had an advantage and wanted to avoid further imbalance in your opponent's favor*.

Take the following common position, after **1.e4 e5 2.Nf3 Nc6 3.Nc3 Nf6 4.Bc4 Bc5 5.d3 d6 6.0-0 0-0**. Suppose White plays **7.Be3**. Should Black capture the bishop?



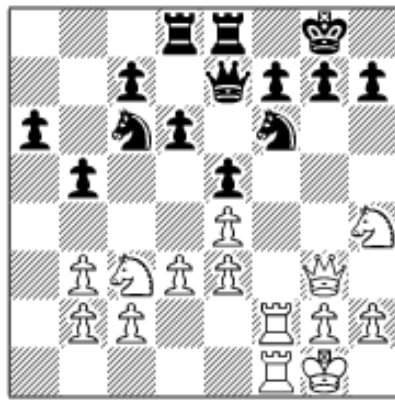
Black to play

The answer is a resounding, No! **7...Bxe3** (?) Better is **7...Bb6** or even **7...Be6. 8.fxe3**



Black to play

Beginners constantly allow this position as Black, happy that they are “ahead” because White has “bad” doubled pawns. But that is an incorrect evaluation. White not only has an extra pawn in the center to cover the key squares d4 and f4, but, more importantly, the only semi-open file on the board to provide activity for his rooks. The imbalances are much more in White's favor! In one game between an intermediate player (Black) and an expert, the game continued something like **8...Be6 9.Bb3** White does not make the same mistake! **9...Bxb3 10.axb3** More “bad” doubled pawns! **10...Qe7 11.Qe1 a6 12.Qg3 Rfe8 13.Rf2 Rad8 14.Raf1 b5 15.Nh4**



Black to play

White has a knight on the rim and two sets of doubled pawns, but all the important imbalances – including much superior rook activity and the bunched pawns controlling the center – are in his favor. He threatens 16.Rxf6 and has a massive kingside attack. White won easily. After the game, Black, thinking about his “perfect” pawn structure, said to me, “I don’t understand. I did everything right, and he did everything wrong, and I lost!”

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

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