



The Two Types of Counting Problems

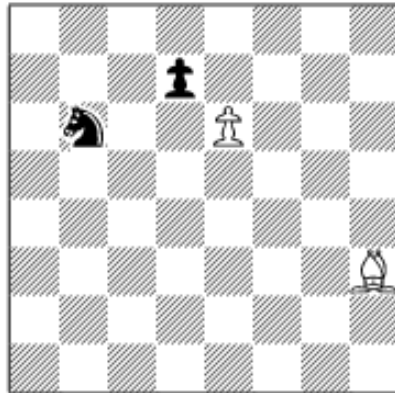
Quote of the Month: *It's the little things that count.*

In previous Novice Nooks ([A Counting Primer](#); [The Most Important Tactic](#); and [Is It Safe?](#)) we defined Counting as the basic tactic that determines if any sequence of captures on a square might lose material. However, it is very likely in practice for counting issues to arise simultaneously on multiple squares on the same move. Therefore, we can define two types of Counting *problems*:

- Those that only involve capturing sequences on one square, and
- Those that involve capturing sequences on multiple squares.

Counting sequences on one square can sometimes be tricky, but Counting problems involving capturing sequences on multiple squares can be fiendishly, computer-required, difficult.

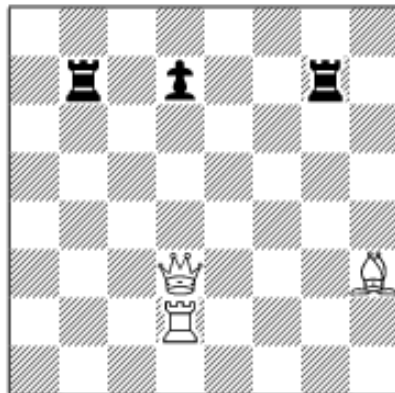
Let's first consider a very easy counting sequence on one square:



White to play; is the d7-pawn safe?

In this position, White is attacking the d7-pawn twice – the second time indirectly with the bishop – and thus the pawn is not safe after 1.exd7. Easy enough.

Next, let's consider a slightly trickier counting problem involving one square:



White to play; is the d7-pawn safe?

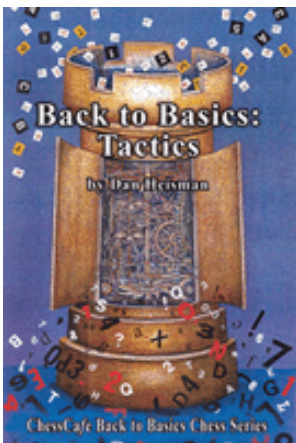
White has two possible captures on d7. He can play 1.Qxd7??, but, after 1...Rbxd7, no matter how White captures on the second move, Black no longer has to recapture and has won a queen for a rook and pawn. Instead, 1.Bxd7? might seem better, but, after 1...Rbxd7, Black is temporarily up a bishop for a pawn, and if White continues 2.Qxd7 then, after Rxd7 3.Rxd7, Black has won a bishop and queen for two rooks and a pawn. This is better for Black by approximately

two pawns worth of material, *although strong players rarely need to calculate pawn equivalents to decide whether a sequence is good!* So we can conclude that in the initial position, White does not have any favorable capturing sequence – assuming Black makes the best replies – and therefore the d7-pawn is safe.

COLUMNISTS

Novice Nook

Dan Heisman



When I ask a student, “What type of tactical mistake is 1.Bxd7?”

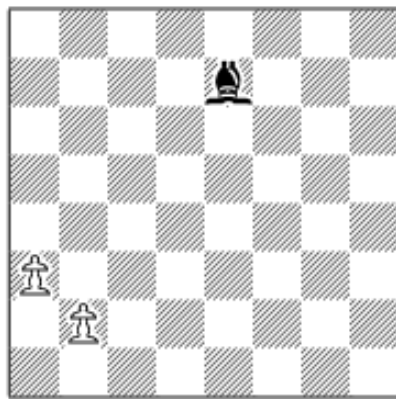
They often answer, “It is a blunder.”

Yet, that answer is inaccurate, as the word “blunder” is simply a synonym for a mistake – it does not pinpoint a *type* of mistake, much less a specific kind of tactic. Years ago, I designated this type of tactical calculation as “Counting,” because there was a gap in the chess literature with regard to defining this type of tactic. (No applause, please!).

The above example shows that Type 1 Counting can be tricky, and many players, especially those rated below 1800 USCF, fall prey to this error more often than they would wish.

During a recent evaluation of a new student, I commented to him that at his level he most assuredly made Counting errors, and he replied: “I never make Counting errors!”

Nevertheless, in the first game we reviewed, he made the following mistake:



White to play

This is the skeleton of a position where my student, as White, played 1.b3 and Black replied 1...Bxa3, winning a pawn. I asked him to categorize the tactic that caused him to lose the pawn, and he answered: “It was a blunder.”

I indicated that this was more appropriately considered a Counting error, since the pawn on b2 had been guarding a3 and, after 1.b3?, there were no defenders and one attacker, so Black could just safely capture the pawn. Of course,

whenever there are attackers and *no* defenders Counting reduces to the well-defined term “*en prise*.”

“Oh, so *that* is Counting!” he exclaimed.

In the first two games we reviewed he made four Counting errors. So, as it turned out, I was able help him in this critical area – at least by making him more conscious of the safety of his pieces.

Type 1 Counting errors occur more frequently than most players would like, but they “ain’t nothing” compared to the frequency of multi-square, Type 2 Counting mistakes.

Let’s begin our overview of Type 2 Counting mistakes with a simple error, as played in an Internet game between two intermediate players:



Black to play after 7.d4

First, determine if the d4-pawn is safe: it is guarded twice, but it is also only attacked twice, as the knight on c6 is pinned. Since the capturing and defending units are of the same value (pawn-pawn; piece-piece), the pawn is safe. It is important to note the powerful counting rule: *If the respective attackers and defenders are not of the same value, then simply counting the number of attackers and defenders is insufficient to determine the safety of the attacked piece.* For

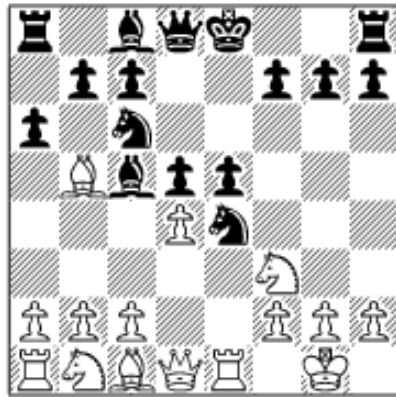


example, if a pawn attacks a queen, then the number of defenders is irrelevant: the queen is not safe, excluding non-counting issues such as checkmate threats on other squares.

However, in this case, Black forgot his bishop on c5 was not safe, and counterattacked the pinning bishop by...

7...a6??

This counting error involves four squares: b5 (not safe), c6 (safe), c5 (not safe), and d4 (safe). The solution for White was quite easy (I know you will get this one right!):



White to play and win (Counting Problem)

8.Bxc6+

By capturing the knight first (the check does not matter much *in this case*), White simply trades off his unsafe bishop for the safe knight. Fair trade so far, but after...

8...bxc6

...Black cannot do anything about saving the bishop that was attacked on move 7, so...

9.dxc5

... White won a piece and the game.

This was an easy problem, but quite a few intermediate players that I showed it to could not find the correct idea in a reasonable amount of time. This surprising lack of “tactical vision” once again shows that, even for intermediate players, it greatly pays to improve your tactical vision by studying simple counting problems – along with “single motif” problems such as removal of the guard, double attack, pins, etc.

While the above position involved a sequence of captures on multiple squares, the key to designating this a Counting problem was the lack of “removal of the guard” or any other type of tactical motif that **affects** multiple squares; it was simply a set of captures that allowed a winning sequence.

Contrast the previous example to a simple removal-of-the-guard tactic:

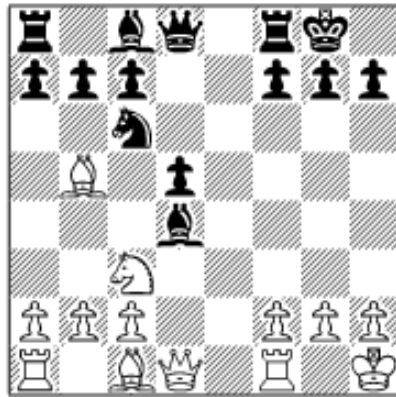


White to play and win (Removal of the guard)

Although the position is similar to the previous one, the principal difference here is that the knight on c6 is guarding d4, so the bishop’s safety depends on it. Therefore, it is no longer just a matter of being able to make an independent capturing sequence, although the sequence of captures still matters. White cannot capture on d4 first, since 1.Qxd4?? Nxd4 wins the queen. So to win material White must first play 1. **Bxc6**, removing the guard on d4. No matter how Black responds, White wins a piece (i.e., a bishop or knight): if Black plays 1...bxc6, then White will play 2.Qxd4, while if Black tries to save the bishop; for example, by 1...Bf6, then 2.

Bxd5 leaves White ahead.

With a little imagination we can combine the two ideas presented above to produce a problem that combines counting with the removal of the guard motif:



Can White win a piece?

Here, with a white knight on c3, the question could also be posed in tactical defensive terms: “What should Black play after 1.Bxc6 to not lose a piece?”

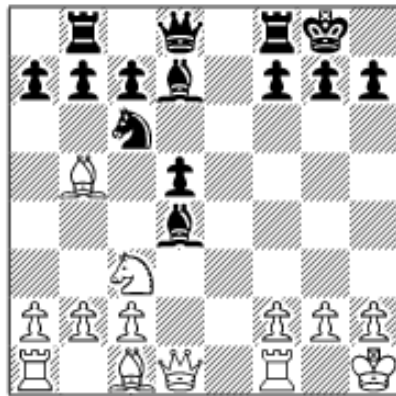
The answer is that 1.Bxc6 is not as powerful as in the previous example, because Black does not have to recapture on c6 (1...bxc6?? 2.Qxd4). Instead, he can capture a piece on *any* square. Therefore, one should consider the counting sequences on both the c6- and c3-squares to find

the best sequence for Black. Analysis reveals that

Black should use his desperado bishop to play 1...Bxc3!, trying to maintain the balance, although White can at least win back his pawn (but not a *piece*) by 2.Bxd5.

In the above problem, the more encompassing Counting aspect includes the well-defined issues of both “desperado” – since, after 1.Bxc6, the bishop on d4 is hanging and about to be lost – and “zwischenzug” (in-between move), since the capture 1...Bxc3 is made before a possible recapture on c6.

Let’s add another layer of complexity:



White to play and win

In this example, after the capture 1.Bxc6, White will also have a desperado that can make a second piece capture, so a combination removal of the guard and counting tactic is possible. For example, 1...Bxc6 2.Qxd4 is a simple removal of the guard. If Black tries the intermezzo 1...Bxc3, then White has 2.Bxd7. Thereafter, if Black saves his bishop (by, say, 2...Bf6), then so does White, while if Black captures 2...Qxd7, then 3.bxc3 again leaves White ahead a piece.

If you understand the difference between the above examples, and can routinely recognize these situations during a game, you are on your way to becoming a good player!

Here’s another easy Type 2 problem:



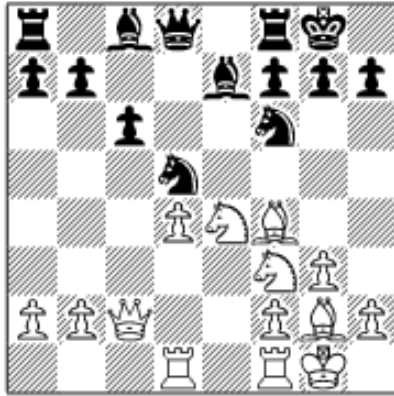
Position after 1.Bg5

Black played 1...Ng4?? This would work fine after if White’s only capturing option were 2.Qxg4?? Bxg5 winning the bishop-pair, but the other capturing sequence 2.Bxe7 Qxe7 (or 2...Nxf2 3.Rxf2) 3.Qxg4 just wins a piece for White. So 1...Ng4?? is more than just a blunder – it’s a Counting error. I see them all the time.



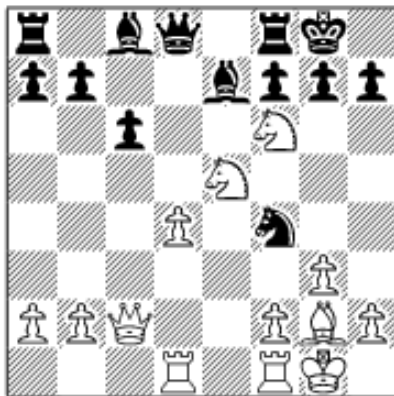
Finally, here's a few more examples from a recent Internet game:

Position after 1...Nbd5



Black is threatening to capture the bishop on f4 and White should just move it to a safer square. But instead he "counterattacks" with 2.Ne5?

Black gladly takes the bishop with 2...Nxf4 and now White should just recapture with the simple 3.gxf4. The simple moves are often best, but weaker players tend to "outsmart" themselves, by making things more complex than they need to be. Accordingly, White decides to play the seemingly harmless *zwischenzug* 3.Nxf6+??



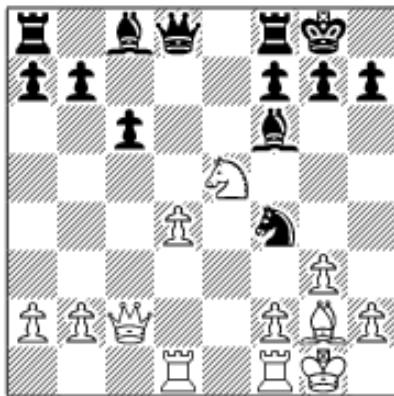
At this point Black, normally a very deliberate player, quickly played the "obvious" 3...Bxf6??

This failure to seriously consider the alternative capture demonstrates a very common time management problem among intermediate players: *making recaptures very quickly despite the presence of multiple choices*, as if they know which capture is best, when the issue is often unclear.

Here, however, those issues *are* clear. Since White is temporarily down a piece, Black should

take the opportunity to play 3...gxf6 to attack the knight on e5, when Counting reveals that if White saves the knight on e5, then Black will save his on f4. If White instead captures 4.gxf4, then 4...fxe5 will still win a piece. Of course, Black played 3...Bxf6?? because 3...gxf6! would expose his king. However, as in most cases, strong players understand that winning a piece is more important than king safety in some positions. (See [The Theory of Tactical Dominance](#).) Unless your opponent has purposely sacrificed a piece to demolish your kingside for a winning attack, then it is much more likely that *your extra piece will make your king safer, because of your superiority of forces!*

Position after 3...Bxf6+??



The last two Counting errors negated each other, and here White should regain approximate material equality with the simple 4.gxf4. Instead, White uncorked the "aggressive" 4.Be4??. The third Counting error in a row! Black could just play *any* move that saves the knight, say, 4...Nd5 and, after 5.Bxh7+ Kh8, all White has is a check and a pawn for his bishop, with a completely lost game. 4.Be4?? represents a common type of mental mistake: *overrating a check*. Instead of the mundane 4...Nd5, Black played the superior 4...Ng6 (4...Nh3+ is even slightly better, but

unnecessary) and White did not even get the check *or* the pawn for his bishop! With the extra piece, Black went on to win.

I know I can "count" on the reader to be more aware of this common tactic in the future!

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

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