



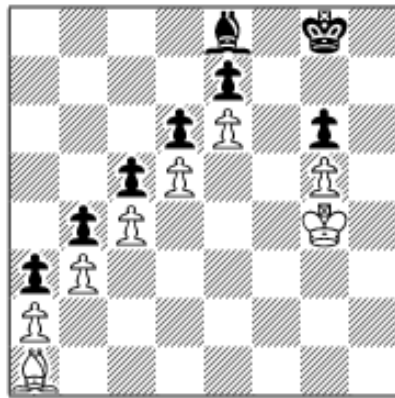
Activity is the Real Goal

This month I would like to focus on the common evaluation criteria “space,” “time,” and “center control.” My first book, *Elements of Positional Evaluation*, calls these criteria *pseudo-elements*, and concepts like mobility and speed *primary elements*. The goal will be to demonstrate that these are pseudo-elements because each is subordinate to the primary concept of activity.

I am often asked:

- Which criteria are used to evaluate chess positions? (See [Evaluation Criteria](#)), and
- How does one evaluate the value of individual pieces in specific positions?

Elements addressed the latter question, including the various concepts of mobility. What is the difference between mobility and activity? Mobility is purely quantitative – the number of squares to which a piece can move. For example, I define *actual mobility* as the number of legal moves a piece has in a given position. For instance, if in a particular position, a bishop can move to seven different squares, then its actual mobility is seven. But *activity* describes how much a piece can do. The following diagram illustrates the difference.



Neither bishop has a safe move. The bishops have decent mobility, but no reasonable activity, other than a dubious sacrifice. For example, cute is 1.Bf6?? exf6 2.gxf6 Ba4! and Black wins! If instead 2...Kf8? 3.Kg5 then 3...Bf7! 4.Kh6 Be8 only draws.

Mobility is extremely important because *piece value is highly correlated with mobility*. A queen is more valuable than a rook because it can also move like a

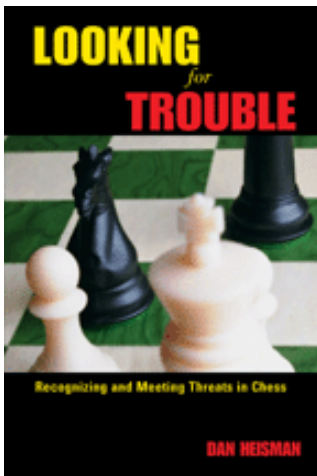
bishop. However, the value of mobility in a given position can, like space, also vary; a piece can have many useless moves, as in the previous diagram. Mobility has a precise value, but activity – how useful a square is to a piece – is subjective. The real goal is getting activity: your pieces have good things to do – coordinate with other pieces, limit enemy piece movement, attack key points, etc.

The reason that the other concepts are subordinate to activity is simple: each has little value unless it confers superior activity.

COLUMNISTS

Novice Nook

Dan Heisman



We will first examine the relationship of space to activity, beginning with a definition of space:

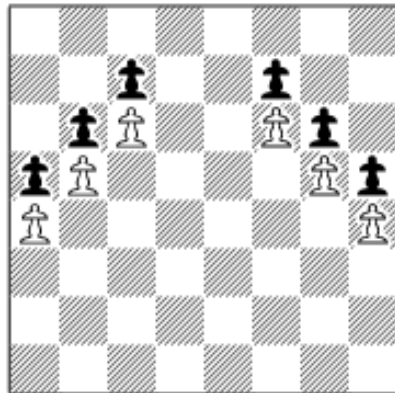
Space is the amount of area (roughly measured in squares) between your pawn chain(s) and your first rank (including the first rank, but excluding the squares of the pawns, which are inaccessible to your other pieces).

Let's test this definition: As the pawns disappear, the concept of space becomes less clear and, as seems reasonable, disappears entirely in a pawnless endgame. That intuitively makes sense; so far, so good.

Having more space usually provides the following advantages:

- More room for your pieces to maneuver,
- Less room for your opponent's pieces to maneuver, and
- Gets your pawns closer to their promotion squares, making sacrificial promotion combinations possible.

Can we show that space, while positively correlated with activity, does not necessarily *confer* activity? Consider the following pawn structure:



It is fairly safe to state that, by any measure, White has much more space. Furthermore, if we place the pieces as follows (admitted an extreme example!), White's pieces are dominant:



A great triumph for White's space advantage!

But suppose we leave the "space" unchanged (and even the king positions), and just change the positions of the other pieces:

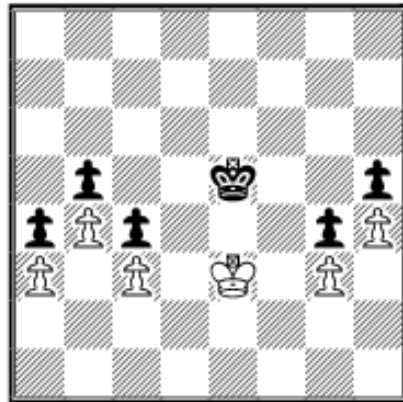


Black's pieces have penetrated White's space, resulting in an enormous reversal of fortune. These examples may be far-fetched, but similar infiltration frequently occurs. For example, consider an Open Sicilian where White castles kingside and correctly pushes the kingside pawns for an attack. When that attack is misplayed, fizzles, and/or Black breaks through in the center, then White's advanced pawns often leave an exposed king in the middlegame, and Black's infiltration can be decisive.

See the final game example in [When Is a King Safe?](#)

Although these examples are extreme, they help prove an important point: *Space in and of itself is not an inherent advantage; it is a means toward an advantage. The real advantage of superior space is that if achieved properly, it allows your pieces to do more than your opponent's pieces ("better army activity").* No more, and no less. If a spatial advantage does not confer an activity advantage, then it can be meaningless or worse.

Another common example is a king-and-pawn endgame where both kings are centralized and the pawns locked, with one side having much more space (similar to the previous examples). Then the side having more space is often at a disadvantage, because the enemy king can get "behind the lines" and "elbow out" the king with the "space advantage." Consider the following position:



Black to Move

Here Black, with the space advantage, *loses*. Not only because White has the opposition and Black's king must give way, but also because Black's pawns are so advanced and vulnerable.

On the average, having more space *is* an advantage. However, it should be clear that *the real goal you are trying to achieve is more active play, not space.*

The same argument can be made with center control: if it does not help you make your pieces active, then it likely is not much – if any – of an advantage. But since center control usually does help your pieces be more active, it is almost always worth fighting for. The key is to understand the means from the ends.

GM Andrew Soltis uses the following example to introduce his excellent book, *The Art of Defense in Chess*:

Khlyavin-Zhdanov, Latvian Championship 1961



White to Move after 10...e6

White not only has more space, but also seemingly controls the center: all the white pieces except the h1-rook attack central squares. Black has severe dark square weaknesses and only one piece developed. Unfortunately, White's "center control" is negated by the inaccessibility of the controlled squares because pawns are fixed on them. Black's control of the flanks – especially the queenside, where the white

king resides – actually gives the second player better prospects! Black won after only 28 moves.

We could make the same argument about *time*, as was given for space and center control. If I gave you odds of two moves, at the start of the game you would not play 1.Nf3 and then 2.Ng1. Instead you would get ahead in activity; for example, 1.e4 2.d4 would not only control the center, but also allow you to develop both bishops and your queen. On the other hand, if I give you free extra tempi in a given position, but you unwisely place your pieces on squares *less* effective than where they were, or just have no effective way of making them better (zugzwang being the extreme example), then having "extra" time would not be helpful. In any situation, where you fail to use your time to generate more or better activity, then that "time" almost always would be useless. Extra time is only effective if it creates some type of activity for you or limits your opponent's activity.

Correspondingly, every time you make a threat you are not winning a tempo. Such threats can even be detrimental, say, if your opponent's move that meets the threat does more for him, than the threat does for you! See one of my favorite columns, [*It's Not Really Winning A Tempo*](#).

So we can conclude that time, like space and center control, takes a back seat to the real goal – having more, and better things to do with your pieces.

That is one reason why I call space a pseudo-element. Space does exist as an understandable and useful concept, but is not really an *elemental* basis to evaluate a position. So what *is* a good measure of positional, static evaluation? *Total piece activity* covers the useful byproduct of space and time. I claim the four most important static evaluation criteria for evaluating an entire position are, from most to least important:

- Material
- King Safety (you can make this #1 if the King is extremely unsafe!)
- Total Piece Activity
- Pawn Structure

The fifth, "non-board" consideration, is the clock/time factor, which can even become the most important consideration in severe time pressure. *Time remaining on the clock can be a big factor in deciding who has the advantage, especially in faster time control games.*

Note: *Static* evaluation consists of deciding the three questions: who is better, how much, and why, *without analysis*, using only the current position on the board. *Dynamic* evaluation requires analysis: finding each player's best moves and seeing what can happen!

It is not that pawn structure is unimportant – it is, or it would not be on this list! For example, pawn structure can easily be the deciding factor in positions where the material is even and both kings are safe, and both armies are relatively equally mobile. But otherwise many weaker players greatly overrate pawn structure, and think they are winning when their pawn structure is somewhat better, even in the face of clearly more active enemy forces! Similarly, sometimes players strive for more space and get it, only to find that the active and flexible enemy pieces make their space advantage rather moot! This happens in many openings, but Open Sicilians and the Modern Defense are two that readily come to mind.

So next time you are considering expanding your space, winning a tempo, or trying to control the center, evaluate the likely outcome to ensure you are actually providing an advantage for your army and not just weakening it. If it does provide such an advantage, and there is nothing better to do – like a tactic – then go for it!

Finally, I should note that even activity is not the ultimate end – it is winning material (and thus eventually checkmating after attrition) and mating attacks, which is why tactics dominate positional criteria. Nevertheless, positional criteria cannot be ignored, because tactics flow from superior positions, and positions without tactics can be won on positional criteria alone. Isn't chess a fun game?

Readers' Question #1

I received a few e-mails about last month's Novice Nook, [*The Most Common Opening Inaccuracies*](#). Thanks for taking the time to communicate!

The gist of these communications was a protest that one line or another was playable. Granted. *But the subject was common opening inaccuracies, not most egregious opening traps.* While many of the lines *are* playable (in the sense they are sometimes purposefully played by stronger players and certainly do not lose by force), they are all, to one extent or another, not considered mainstream play and, *if stumbled into accidentally, can easily get weaker players into trouble.*

Let's review a very mild transgression: 1.d4 d5 2.c4 c6 3.Nc3. As mentioned in the column, this sequence is often played by grandmasters, but not nearly so often as 3.Nf3. While 3.Nc3 can allow the Slav Gambit 3...e5, it is certainly a fully acceptable move. To deem 3.Nc3 "inaccurate" could be considered a stretch. The problem is that many weak players never take the small effort to find that 3.Nf3 is the main move, and they allow lines where 3.Nc3 brings Black a favorable transposition. They fail to investigate the opening sequence, and thus don't avoid potential issues by switching to 3.Nf3. So 3.Nc3 is just considered slightly unusual, but not really bad in any way. In 1967, when I

had been only playing tournament chess for one year and was still a mid-class player, *I played the White side of a Slav for the only time in my chess career*. I played 3.Nf3. That highlights a difference between an aspiring master and a class player: even though I did not usually play that opening, I had taken the time to look up the main lines in *Modern Chess Openings* to see what the “normal” moves were. You can, too!

Similarly, all the lines presented last month, when played by weaker players, are rarely purposeful attempts to play sophisticated openings, but rather spring from “out-of-book” failures to follow general opening principles or “poorly remembered” book lines. As a result, the players who stumble into these lines often end up in trouble. Theoretically, anyone intentionally playing these lines is playing an opening sequence that, if played perfectly by the opponent, is supposed to result in at least a slightly less favorable position than they would have obtained if they had followed “normal” lines.

Readers' Question #2

A couple of readers asked me to summarize the Novice Nook, [The Two Triggers](#). I think the ideas presented in that column are important, so here is the summary:

- 1) There is a “normal” amount of time you should take on a move, based on the criticality of the move and the time control situation. That normal amount of time may be much more or less than the average amount of time you have for each move in the game.
- 2) The only situation where you should move faster than this “normal” amount of time is if you are absolutely sure there can be no move better than the one you are about to play, in which case you can move as soon as you are sure.
- 3) Unless #2 occurs, you should never move much faster or much slower than that normal amount of time, for you are making a bad mistake. Weaker players make this mistake on many moves of their games, and thus greatly mismanage their time.

This summary is consistent with the following diagram. Each of the four vertical lines represents one way to measure a move in a given position. If you place four marks measuring the same move on all four lines, there is a usually a good horizontal correlation between each mark:

Complications?	Type of Move	Primary Skill	Time for Move
Tactical	Critical Move	Analysis	Slow
↑	↑	↑	↑
↓	↓	↓	↓
No Tactics	Non-critical	General Principles	Quick

So positions with non-trivial tactics are critical moves, which generally require careful analysis and have to be played slowly. Non-tactical moves are usually less critical, and are often guided by general principles (or trivial

analysis), so they can be played relatively quickly. The less critical the move, the less time it should require.

Reader's Question #3

A. Regarding the selection of candidate moves and checks, captures and threats of the opponent ... Should one start with a null move for oneself as an initial candidate and then look at the opponent's possible killer moves, or should one mentally list their own possibilities first and then check the checks captures and threats of the opponent?

Answer: Unless you have a forced mating sequence (when the following is not necessary), you should always look at what your opponent's last move threatens, plans, etc. You need to find *all* the reasons he made that move. It may be that you can ignore his threats, but possibly not. Knowing his threats and plans (as well as yours, of course) helps you select candidate moves, as one of your possible ideas would be to thwart his. These threats may include killer moves (unallowable threats), which will help you prune candidates that allow such moves. Then, for each candidate, you *initially* need to determine if any forcing reply – check, capture, or threat – cannot be met. If so, you should probably scrap the candidate move. But be careful for quiescence errors, where you incorrectly think a move cannot safely be played.

B. I have trouble assessing positions! I don't want to continue a game that is probably lost, while being oblivious to the fact! It often amazes me how good players can evaluate a position just by taking a quick look at it.

Answer: I have several Novice Nooks on evaluation: [Analysis and Evaluation](#), [Evaluation Criteria](#), [Evaluation Quiz](#). In general, playing many slow games and analyzing them with your opponents, as well as with stronger players, hones this skill. Another way to improve your evaluation skill is to relatively quickly play out dozens of good annotated games, starting with *Logical Chess Move by Move* and the *Most Instructive Games of Chess Ever Played*, both by Irving Chernev. Finally, you can also do the PV and Stoyko exercises in my Novice Nook [Chess Exercises](#), because they both contain aspects where you evaluate positions and later compare those to the evaluations of a computer or strong player.

C. Finally, I often get surprised by my opponent's move simply because I didn't look along the trajectory of that particular piece or failed to sense its move possibilities. What is the best way to eradicate this? Being more careful probably and slow!

Answer: Yes, again slow chess experience and being careful is vital. I call the ability to which you refer, "Board Vision," and it is a major subject of [Everyone's 2nd Chess Book](#). Playing plenty of slow chess, and taking your time to visualize difficult sequences, definitely strengthens this skill. For example, the online Team4545 league plays weekly games at 45 minutes with a 45 second increment. This may be faster than the World Open, but it is slow enough to practice this skill on critical moves that require some care and thought. Many of my Novice Nooks about time management are meant to help

you identify how to best pace yourself, so you use your time more efficiently, and thus take time, when needed, to identify those board issues to which you refer.

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



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