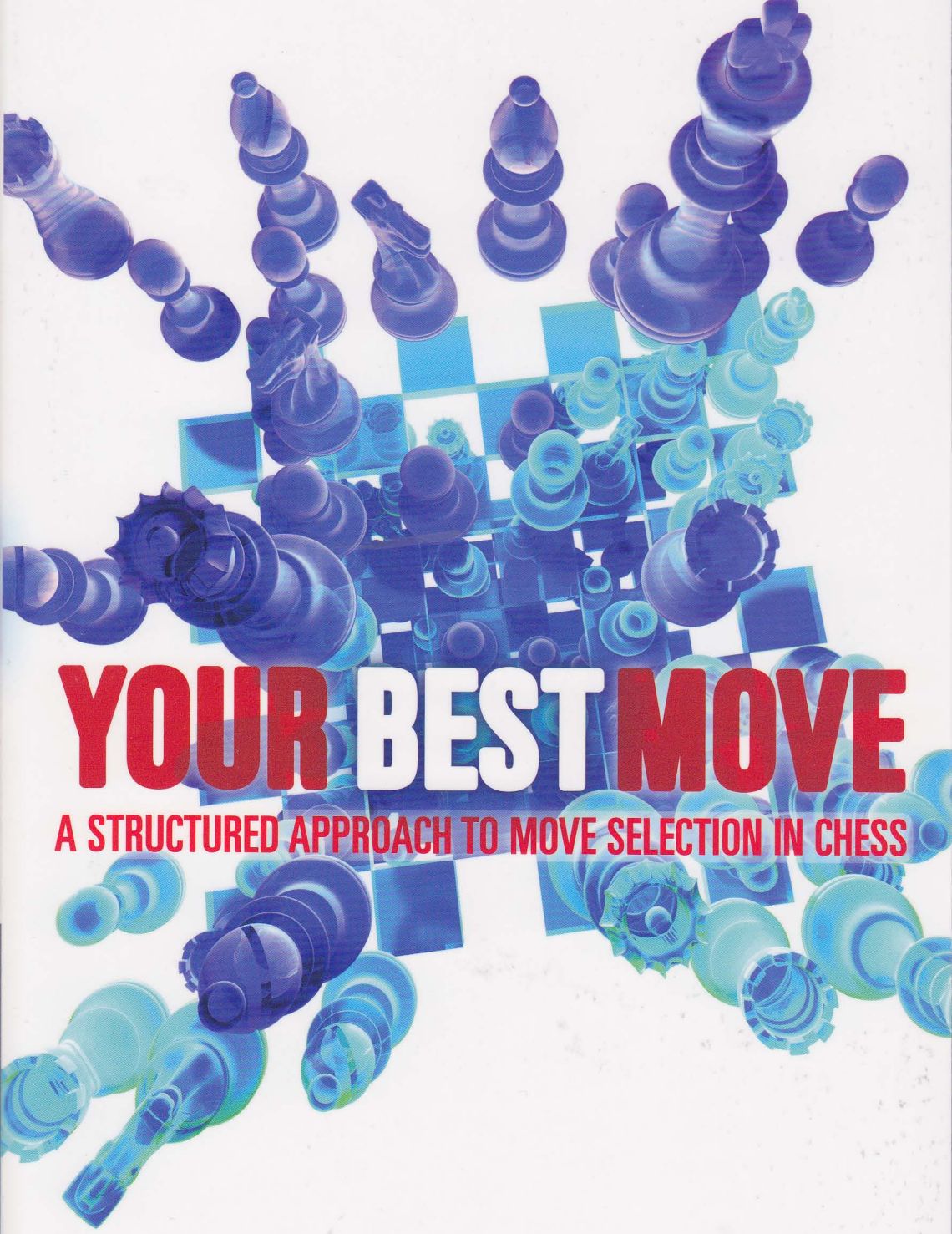

YOUR BEST MOVE

A STRUCTURED APPROACH TO MOVE SELECTION IN CHESS

PER OSTMAN

EVERYMAN CHESS

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To my wife, for constantly showing me how wonderful life can be.

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Foreword

by Grandmaster Zong-Yuan Zhao

Initially I was somewhat surprised when I was asked to write a foreword to the book you are now holding in your hands, but this quickly turned into admiration when I realized at how concisely and accurately the author, Per Ostman, has managed to pinpoint many of the important features of good decision-making which is constantly required in practical play.

As the author notes, he was deeply influenced by the classic forefathers in this chess genre, namely *Think like a Grandmaster* and *Play like a Grandmaster* by the eminent Russian grandmaster and teacher Alexander Kotov. However, he believes (and I think very rightly) that the idea of developing an analysis tree is not universally applicable. Indeed, like many others before me, I actually believe that not many grandmasters would think in this "classical manner" described by Kotov. Also, Kotov's books do not really describe how one might attempt to find and compile the list of candidate moves in the first place.

Your Best Move is here to provide both a conceptual and theoretical framework for this candidate move compilation process, complete with well illustrated examples from chess practice. Indeed, as the author points out, the real key is to find "...the move most likely to give you the desired result against a certain opponent in a certain context". Equally importantly, I believe this book has a wide appeal and provides strong examples which are useful for students ranged anywhere from 1400 up to 2000 in Elo rating. In Australia, this means that it would be incredibly useful for most of my students. Furthermore, I believe the scarcity of books in this decision-making genre means that this book will become a classic in its own right, and will hopefully encourage other authors to consider developing this genre further!

Lastly, I think the author does a good job of noting the importance of some basic points about chess (and, in fact, almost all other competitive activities I can think of). This includes the fact that when facing a stronger opponent (especially a titled player), less experienced players often lose hope and forget the basic principle that the game of chess is only decided by the quality of the moves made on the board, and not on reputation. This may seem like an obvious point, but it is one I only fully understood after becoming a grandmaster myself, as I then realized just how fallible grandmasters can be!

For all those players aspiring to improve from club level to 2000 and beyond, you are now holding the right book in your hands!

Zong-Yuan Zhao,
Sydney,
November 2010

Zong-Yuan Zhao is a grandmaster, the 2010 Australian Champion and Australia's number one ranked player. He coaches many of Australia's most talented junior players, including Per Ostman's son, Erik.

Preface

When we first learn chess, we are primarily concerned with simple traps, tactics and exploiting our opponent's mistakes. Hopefully we also do our best not to make any obvious mistakes ourselves. The move we choose to make is often the very first move that appears in our minds and rarely do we take any time to look for other moves.

As we get stronger, we accumulate more and more experience and knowledge, which ultimately make us subconsciously choose better and better moves. Some players just continue playing like this and sooner or later find themselves stagnating.

It is only natural that some form of conscious selection, some form of process to follow, would help us make more informed and better choices.

Ever since I first got seriously interested in chess and played my first tournaments, I have been keenly interested in how such a process would look, obviously to improve my own results. Surely, many of the world's strongest players must have documented such an approach? I started to look, consuming any information I could get hold of at the time, including all the published books of Alexander Kotov.

I especially remember the two books *Think like a Grandmaster* and *Play like a Grandmaster*, both of which led me to some insights, and still today contain a fair bit of important information. I remember trying to adopt his way of calculating the variation tree and starting to evaluate positions according to the elements described by him.

And I did indeed improve somewhat, but something was not right. I realized that evaluating positions to try to magically find the opponent's weakness and to exploit it by a plan was not enough, and more often than not actually wasted too

much time. I also realized calculating variations is not really possible if you don't have a good way of knowing what moves to look for, which was not described by Kotov.

Nowadays the number of quality chess books is so much greater, and since the best way of structuring the move selection process is still at the core of my chess interest, I think I have consumed most chess books on the subject – those published in a consumable language for me, that is.

Some books, like the classic work *Psychology in Chess* by Nikolai Krogius, studies the psychology of chess, but the actual way of thinking is usually not described.

Other books, like the early *Thought and Choice in Chess* by Adriaan de Groot, Jacob Aagaard's *Inside the Chess Mind*, Amatzia Avni's *The Grandmasters Mind*, and Dan Heisman's *The Improving Chess Thinker*, offer actual studies on how players at different levels think. This is extremely interesting reading and in particular offers insights into what actually separates the strongest players from the rest. Interestingly, it seems that many strong players still calculate almost subconsciously, sometimes actually missing moves that could have been spotted quite easily had they just looked for them.

One author describing his preferred way of reaching a conclusion is Jeremy Silman. His work about imbalances, described in *How to Reassess Your Chess*, is one of the most pedagogical and logical books on the subject of move selection. In it, he also describes several other processes from authors I had not heard of before.

In short, Silman proposes that we should look at the imbalances at hand and then implement plans for strengthening our own imbalances while at the same time weakening our opponent's. I still regard his work as the best when it comes to handling the important area of imbalances.

One area Silman could have described in more depth is the transformation of imbalances into others, and how to identify and handle those critical moments when this is most likely to occur.

Another author, Iossif Dorfman, has tried to describe this in his work *The Critical Moment*. He does so in very few words and is a bit too simplistic for my taste; but his point is very valid and in a way he complements Silman's work, even if their writing and style are miles apart.

Further complementing these two authors, by describing the art of forming and verifying plans out of positional elements, or imbalances, are Robert Bellin and Pietro Ponzetto in their work *Test Your Positional Chess*. Together, these three books are the main source of inspiration for me when it comes to positional play

and how to select moves using strategic reasoning. This is not to say there are not better or better-known books on the subject.

Still, when I look at my own games, I realize that regardless of my increasing playing strength, almost all of them are decided in some way by tactics. Fair to say, many of the tactics would not have come about had the winning player not had the positional advantage, but it is a clear reminder that tactics is king. The same seems to be true for grandmasters and even world champions, who sometimes mysteriously miss even one-movers.

An author completely and utterly convinced about this fact is Michael de la Maza. In his work *Rapid Chess Improvement*, he describes a training program for increasing your tactical ability, as well as a simplified thinking process. In the same spirit, *Forcing Chess Moves* by Charles Hertan preaches the importance of always looking at the most forcing moves. Obviously, tactics has to play a central part in any efficient move selection process.

It would be gravely ignorant of me not to mention Andrew Soltis' work *How to Choose a Chess Move*, which describes so many cues and tips on how to think, that it is almost peculiar that he did not try to bring it all together in a process. I would also like to mention the continuous work of Dan Heisman and Jonathan Rowson.

I truly stand on the shoulders of these and many other authors and trainers when I present to you my findings. From them I have distilled what I believe is an effective and logical way of thinking, and hopefully also added my own logic and ideas.

Eager to share and test my theories and conclusions, I have used them in many different forms in my training of young chess students, and the results have been encouraging indeed.

After years of searching and thinking, I realize my interest in refining my findings is decreasing, which for me indicates I am close to the point where I cannot add much more. It is time for me to share it with the chess community and let the next runner take over the torch.

Per Ostman

Sydney

November 2010

Introduction

There is a simple truth about chess, which forms the foundation of what I will try to achieve in this book. Since each player alternates in making moves, and since you are not allowed to make more than one move each turn, the conclusion we all already know is that you only have to decide on one move at a time.

Of course, to be able to decide on that move, we usually have to look several moves ahead, but some players almost forget the reason they are looking ahead. Pragmatically, you only look ahead in order to decide on which next move is the best one to make.

Many players think they have to find what they would call the "best" move, but the question is: Is there one move that is better than the others in every position?

When thinking about it, you realize that even the concept of "best" is not clear! We can all agree that if there is one and only one move leading to a forced checkmate, it should certainly be considered as "best". But what if two of the moves lead to checkmate? You might argue that the quickest one is the best because if nothing else, it saves you a tiny bit of effort. But if they are both checkmates in the same number of moves, is there still a best one?

The same question, but on a much more profound level, is the question about which first move is the best. Experience suggests it is probably 1 e4 or 1 d4, and we think it should at least be a move controlling the centre.

But chess is a finite discrete mathematical problem and there is a solution. The problem is we don't know what the solution is, and even if we did, there would be no way for us to always choose one of the moves leading to the solution.

The point is, say we knew that by best play White would win. If that was the case, there would most probably be much more than one way to get there, and since

the end result is the same, are all those moves of equal value, or which one should be considered the "best"?

When trying to answer this, we have to remember that chess is a sport, with two humans trying to outsmart each other. What we should strive for is optimizing the probability of winning, which means looking not for the objectively "best" move, but for the move with the highest probability of delivering the desired result.

This is an important point, because two moves that can both be considered "best" might not have the same probability of success, mainly because we are humans, with all sorts of subjective attributes. We possess different knowledge in different aspects of the game, we thrive in different kinds of positions and we have different amounts of visualization power and intuition.

This means that in the same position, an attacking player's "best" move can easily be different from the positional player's. Sometimes there is only one objectively "best" move and sometimes there are more, but even the objectively "best" move can be a worse choice than another move because of the nature of the human mind.

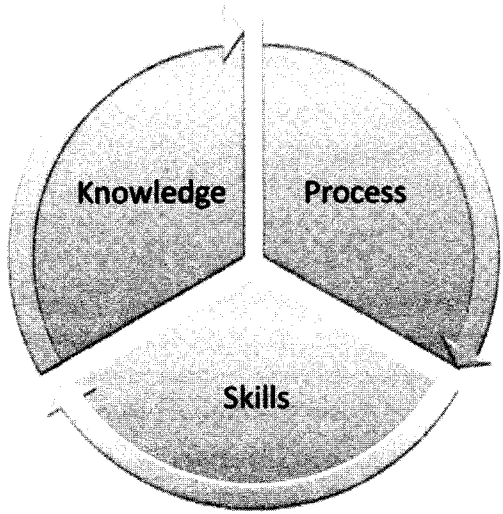
There are plenty of examples where grandmasters choose an easily calculated good move instead of a possibly best move leading to extremely complicated positions, simply because they cannot see all the variations to their end, implying a bigger risk.

As a result, in this text, the "best" move means *the move most likely to give you the desired result against a certain opponent in a certain context.*

This book is about finding that "best" move.

To find your best move, you need a structured way to filter the possible moves and to logically and efficiently select one of them as being the best. You need a step-by-step process by which to think.

For such a structured thinking **process** to work well, you need **skills** for executing the different steps, and you obviously need the **knowledge** to build upon. These three building blocks form the basis of what you need to master to be able to find your best move, and together they form the content of this book.



In formal situations, I have called the thinking process *The Oakhill Thinking Steps*, since it took its final form in Oakhill outside of Sydney in Australia. But for simplicity, I have started to refer to it as just *Yobemo* when talking to my students, obviously using the first two letters in each word of "Your Best Move".

The content is intentionally mainly textual, with diagrams and variations present only to demonstrate the concepts in the text. This by no way diminishes the value of heavy analysis and lengthy variations in chess, but I think it would serve little purpose in our context.

For the same reason, while nearly all of the examples are taken from real games, often involving my students, you will only find the most famous examples attributed with player names.

To be honest, most books on the subject of chess rely heavily on elaborate examples and analysis, and the reader no doubt will select one of these books to train and develop analytical skills.

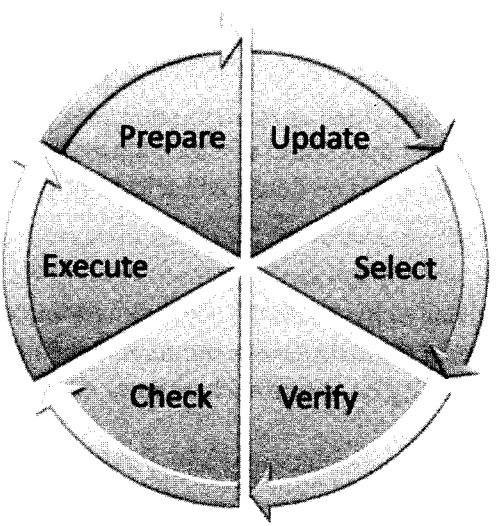
A note on move numbering in the examples: for very well-known opening positions, early in the game, I've used the actual move numbers; in all other cases I've started at "move 1" rather than using the game's actual move number.

Part One
Process

Finding the elusive "best" move during normal play means you have to find the best move from maybe 40 possible candidate moves, and you only have a few minutes to do so.

It stands to reason that this task either calls for great intuitive ability to quickly and subconsciously choose a move, or demands a disciplined and efficient process, or most probably both.

I will propose to you a way of thinking – a thinking process which will guide you in your search for the best move, taking into account all important parts of pragmatic chess. In its simplest and shortest form, it works like this:



If we start at the moment your opponent makes his move, the most natural thing to do is to **update** your understanding of the position.

When you have done this, you start looking for the move you want to make. Calculating and evaluating several candidate moves, you **select** one move as your main candidate. The selected move then has to be scrutinized, so you **verify** that your opponent does not have any replies which would make your choice inferior to other moves. If you find such a reply, you select a new main candidate.

Before you actually make your move, it is good practice to stop for a second to **check** that you are not making any obvious mistakes and to look at how, on a basic level, the move will change the position. Only then are you ready to **execute** the move on the board and start your opponent's clock.

During your opponent's time, you seize the opportunity to **prepare** for your next move by looking at aspects not concerning an immediate move. You ask yourself what your opponent would like to do and how you could stop his intentions, and you look for objectives around which you can form a plan for the coming moves. If you feel the need, you continue this preparation into your own time.

Then it is time to again update the position according to the move your opponent has executed.

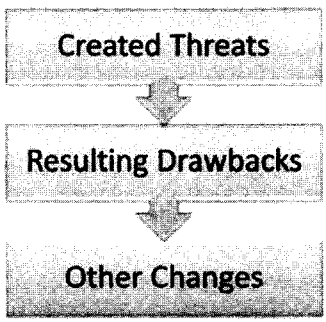
You continue this way, move after move, never deviating from the process. Only the details within each step and the relative importance of the steps change.

If you can find the discipline to do this, I will guarantee you will be astonished by how much you will find during your search. But be prepared – it might sometimes feel like a mundane task. Chess is not for lazy people, nor for the players thinking the game will play itself.

You are as strong as the moves you make. Not stronger, not weaker. If you play grandmaster moves, you are as strong as a grandmaster; and if you play rookie moves, you are as weak as a rookie. Your rating is only measuring how strong you were in the past. Never forget it.

Update

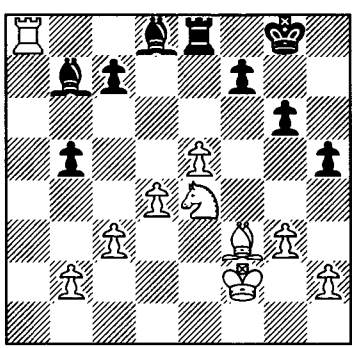
The first step in the process is Update, with the following sub-steps:



When your opponent has made a move, the position has changed. This means it's time to update your understanding of the position. In doing so, you will get cues about potential candidate moves.

Created Threats

First you look at the moved piece. What does the piece threaten and where can it move to next? You also have to look for other threats created from other pieces. Ask yourself if the threat has to be met or if you have an equal or stronger threat, making this unnecessary.



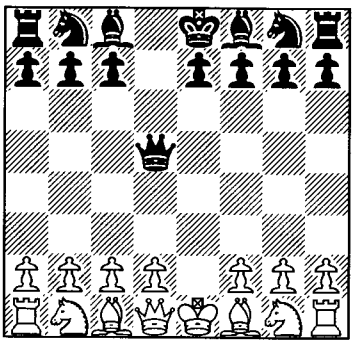
Example 1 (W)

Black's last move was 1...Bc8-b7. The moved bishop is now threatening the white rook.

White can meet this threat by moving the rook. But the threat doesn't need to be met, since White has the stronger threat 2 Nf6+, which wins a piece after 2...Kf8 3 Bxb7 Bxf6 4 Rxe8+ Kxe8 5 exf6.

Resulting Drawbacks

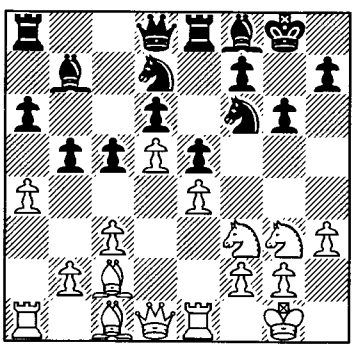
After you have looked at the threats, it is time to look at the resulting drawbacks. You establish if the new position of the moved piece can be exploited; for example, if the piece can be attacked.



Example 2 (W)

In this classic opening position, Black has just played 2...Qd8xd5. White can exploit the queen's position and develop a piece by 3 Nc3.

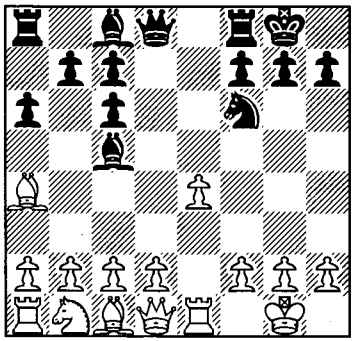
Because every move creates weaknesses, you should then look at what the piece previously protected. It might not have protected another piece, but at least one square has one less defender. Establish if the created weakness is important and if it can be exploited.



Example 3 (B)

White has just played 1 d4-d5 and no longer attacks the c5-square. Black can now follow up with 1...c4 and 2...Nc5.

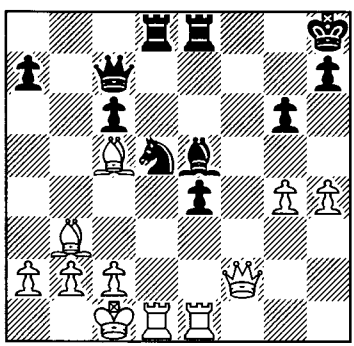
You should also look for drawbacks for other pieces, like those which are now blocked by the moved piece.



Example 4 (B)

White has just played 1 Rf1-e1?, but this removes one of the squares the queen could move to. After 1...Bg4 White is forced to put his rook into the firing line by 2 Re2, allowing Black to win material.

A special way of dealing with threats is to look at what drawbacks the execution of a threat would create. This is a very effective way of meeting a threat, because the opponent is likely to execute the threat if you let him. If you have seen deeper into the position and actually realize how to exploit the resulting position, you are one move ahead of your opponent.



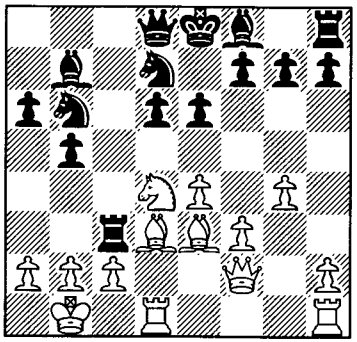
Example 5 (W)

Black has just played 1...Bg7-e5, to be able to continue with 2...e3 3 Bxe3 Nxe3 4 Rxd8 Rxd8 5 Rxe3 Bf4, pinning the rook (6 Kb1 allows 6...Rd1 mate). If White can find a move refuting Black's plan without preventing it, chances are Black will fall on his own sword.

Indeed, if White plays 2 c3, then 2...e3 3 Bxe3 Nxe3 4 Rxd8 Rxd8 5 Rxe3 Bf4 no longer works, because of 6 Kb1 Bxe3 7 Qf6+ Qg7 8 Qxd8+ Qg8 9 Qxg8 mate.

Other Changes

You should also note other changes resulting from the move, like how it affects imbalances. Have new imbalances been created? Have the values of existing imbalances changed?

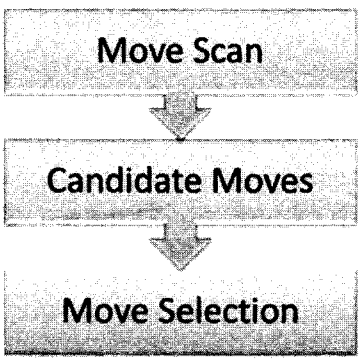


Example 6 (W)

Black has just played 1...Rc8xc3, capturing a knight to create several imbalances. The two obvious imbalances are material (Black will have a knight against White's rook) and a destroyed white pawn chain in front of the exposed white king.

Select

The step following Update in the process is Select, with the following sub-steps:



Now that you have updated your understanding of the position, it's time to select the "best" move. Even in the rare cases where you don't have a clue of what move you want to make, the process is simply to pinpoint the move you think is your "best" move, given the available options.

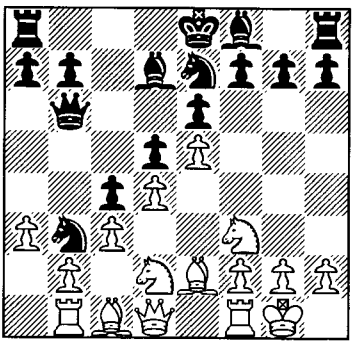
The purpose of the Select step is to extract a move as the one you think is the "best" for you. Verifying its value is the purpose of the next step, Verify.

Move Scan

Very few, if any, players look at all possible moves, but a full move scan can be done in a matter of seconds, taking into account scans from the previous move selections and the understanding created when updating the position.

If you have a good understanding of what a candidate looks like, and immediately recognize the different candidate types, the move scan is much faster than looking for the candidate moves type by type (candidate types are described later).

During the scan, most moves are immediately dismissed, either because they are obviously bad or because they are quiet and don't seem to add any value. Be wary of the premature dismissal of combinational moves, which will only show their true value several moves ahead.



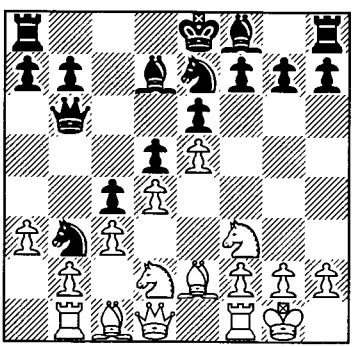
Example 7 (W)

Moves like Qxb3, Ra1, Nxc4, Ne4, Bd3 and Bxc4 look easy to dismiss as candidates because of material loss. Other moves like a4, g4, h3, Qe1, Re1 and Kh1 look either less good or plain pointless.

But wait – let's not dismiss 1 Bxc4 just yet. After 1...dxc4 2 Nxc4 the black queen is threatened, as is Nd6+.

Candidate Moves

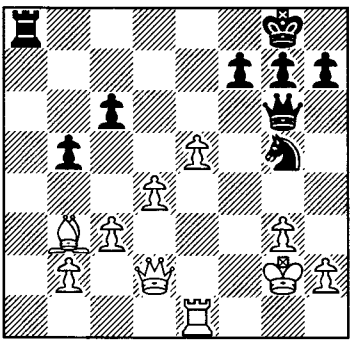
After completing the scan, a few moves are left. In some positions there could be as many as 6-10 moves left. All these are potential candidates, but you will most probably not have to look at them all. Just see them as a shortlist from which you will select the candidate moves to evaluate, one at a time.



Example 8 (W)

Bxc4, Nxb3, Qc2, g3, h4, Ng5, Nh4 and Ne1 looks like a shortlist of possible candidates.

Note that it is not uncommon for a candidate to rise to the top of the list in the middle of your evaluation of another candidate. It might even be a candidate you have already dismissed. The reason a candidate may rise like this is because you suddenly realize it makes something else possible, something you discover during the analysis.



Example 9 (W)

White has identified f7 as a weakness, so candidates might be Rf1, Qf2 and h4.

A quick look at Rf1 shows that the black knight and queen are still very potent. After 1 Rf1 there's the devastating 1...Qe4+ 2 Kf2 Nh3 mate.

1 h4 immediately gets rid of this possible threat and should rise to the top of the candidate list.

Move Selection

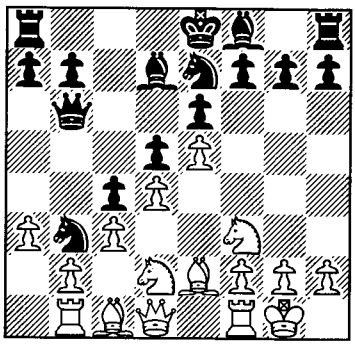
Move Selection is all about selecting the move with the highest value. The moves should be looked at in the order of decreasing potential. *Since the potential value of a forcing move is very high, any forcing moves in the short list should be looked at first.*

I will use the term "potential value" to denote the value you think a move might have, before you have analysed it in any depth. "Maximum" and "minimum" values instead form the range of uncertainty you are left with after analysis.

So first you pick the move with the highest potential value and try to look at it deeply enough to get a sense of its value, or rather the maximum and minimum values you think it has.

To get a good sense of the value, sometimes you have to look several moves ahead and take several opponent replies into account. However, sometimes the position and the move are quiet, and the evaluation rather depends on weighing the positional pros and cons against each other.

When you have a sense of the value of the first candidate move, ask yourself if there is another candidate that could possibly have a higher value than the minimum value of the move you have just considered. Now it becomes evident why you should look at the potentially most valuable move first, because it might be very easy to dismiss most if not all of the remaining candidates! If you don't think there is a potentially more valuable candidate, the selection process is finished; otherwise, you evaluate the next move with the highest potential value.



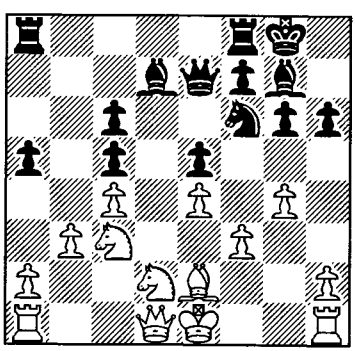
Example 10 (W)

Forcing moves almost always have the highest potential values, so Bxc4 and Nxb3 should be looked at first. Since Bxc4 seems to have more potential than just an exchange of pieces, it is a natural first candidate.

After 1 Bxc4 Nxd2 2 Nxd2 dxc4 3 Nxc4 Qc6 4 Nd6+ Kd8 5 Nxf7+ Kc7 6 Nxh8, White has a rook and three pawns for a bishop, and a stranded knight on h8. Even if eventually the knight could be captured, the minimum value for this variation is a material win of one pawn.

No other candidates have a potential value greater than one pawn, so no more candidates need to be evaluated.

You continue in this way until there are no candidates left with a potential value of at least the minimum value of the "best" move you have considered so far. If two moves look about equal, you either look a bit closer at them to be able to establish which one is better, or if you think looking deeper wouldn't help, or if you are short of time, you could select either of them. The reason being that if they have about the same value, it might not even matter which one you choose!



Example 11 (B)

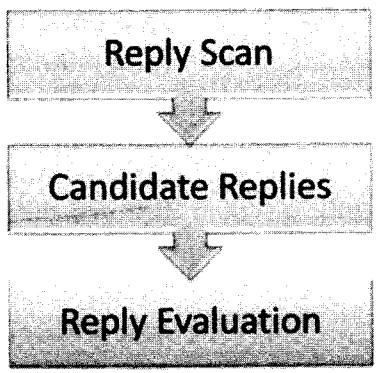
...Nxg4 and ...Ne8 are the two main candidates, one having to be calculated and the other positional. No other moves have the same potential.

1...Nxg4 2 fxg4 Qh4+ 3 Kf1 Qh3+ 4 Kf2 Qxc3 wins at least a pawn.

1...Ne8 followed by ...Nc7, ...Ne6 and ...Nd4 places a giant knight in the centre and could very well be worth almost as much.

Verify

The step following Select in the process is Verify, with the following sub-steps:



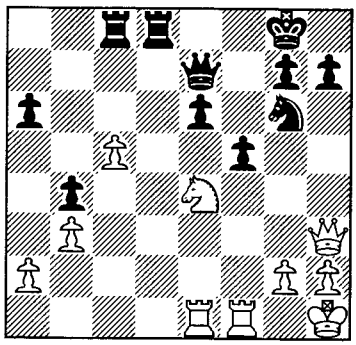
When you have selected what you think is your best move, it is time to verify its value. During selection, your focus is to find what your possibilities are and to try to figure out which move you want to make, whereas during verification your focus should be on your opponent's possibilities and whether there are any opponent replies lowering the value of your selected move so much that it should no longer be considered the "best".

This is also the time to check that you have correctly visualized the key variations, since any visualization error could severely alter the value of the selected move.

Reply Scan

In the same way you scan your own possible moves, you should find all feasible candidates for your opponent. What you are looking for are the moves that could potentially lessen the value of your selected move, so be especially alert to all forcing replies.

This reply scan should ideally be performed not only for the first reply but for replies deeper into the variations. Of course it is not practical to do a full scan on every level, but it is vital to try to find refuting moves not just on the first level.



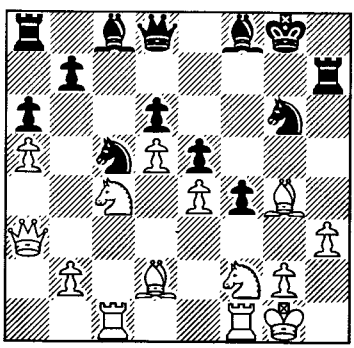
Example 12 (W)

1 Nd6 Rxc5 2 Nxf5 looks promising for White because of the pin along the e-file.

But looking further, you will find that the pin is not absolute: 2...Rxf5 3 Rxf5 exf5 4 Rxe7 Rd1+ wins for Black and so the conclusion is that 2 Nxf5 is not possible. 1 Nd6 might still be the strongest candidate, though.

Candidate Replies

After completing the scan, the candidate replies should be the ones which may potentially lessen the perceived value of your selected move. Be wary of the premature dismissal of moves which only show their true value several moves ahead.



Example 13 (B)

Looking at 1...Bxg4, the candidate replies are 2 hxg4 and 2 Nxg4.

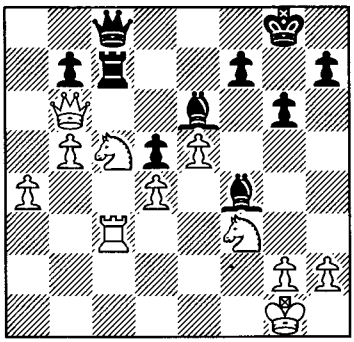
2 Nxg4 seems to lose a pawn because of 2...Nxe4, but not dismissing 2 Nxg4 too swiftly will reveal 3 Qd3, winning a knight.

This means that the value of 1...Bxg4 decreases, because it does not force open the h-file.

Reply Evaluation

When considering your opponent's possible replies, this time it is not about evaluating them to select the "best" reply, but rather to evaluate them to see whether they potentially lessen the value you think your selected move has.

You are not really comparing the value of the candidate replies with each other, but rather their effect on the value of your selected move. If you find a reply which you think lessens that value, you should again ask yourself whether there is any other candidate move that should now be considered the "best".

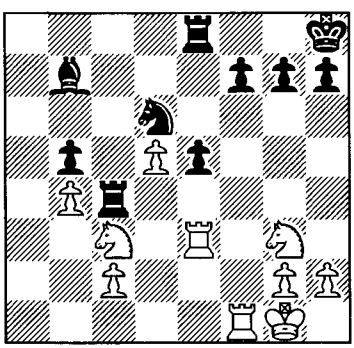


Example 14 (W)

White liked the look of 1 Nxe6 Rxc3 2 Nxf4, but then found the reply 2...Rxf3 3 gxf3 Qc1+, followed by 4...Qxf4.

Despite this follow-up combination from Black, White still evaluated the resulting position as winning for him, and no other candidate move rose to the top of the list as a result of finding Black's reply.

If your selected move still seems to be the best, you continue with the verification. If not, don't dismiss your selected move right away, but instead try to find moves for yourself deeper into the variation – moves that again raise the value of the selected move above the other candidates.



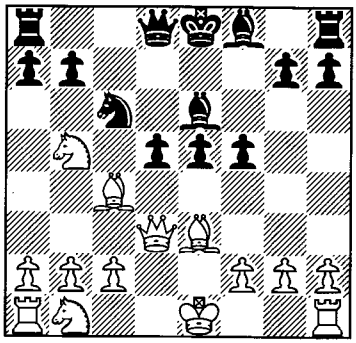
Example 15 (B)

Black is contemplating 1...f6, since he believes the immediate 1...Rxb4 2 Nge4 Nxe4 3 Nxe4 Bxd5 4 Nd6 Re7 5 Rd1 wins back one of the pawns with a good game for White (5...Be6 6 Rxe5).

But while verifying 1...f6 2 Nge4 Nxe4 3 Nxe4 Bxd5, Black finds the reply 4 Nd6, forking the two rooks.

But look further! Moving the knight to d6 opens up the diagonal to g2, so after 4...Rxc2 5 Nxe8 Rxg2+ 6 Kh1 Rg3+, the move 1...f6 still comes up on top.

But if you cannot find any later improvements in the variation, you have to go back to the selection step and select another move. You then have to return to verify that new move.



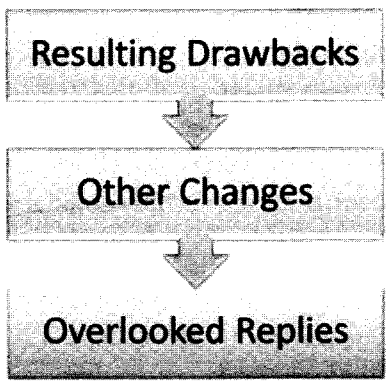
Example 16 (W)

White initially believed in 1 Bxd5 Bxd5 2 Qxd5 Qxd5 3 Nc7+, but then found Black's refutation, 1...Nb4. Since he couldn't find any improvement in this variation, the candidate move had to be abandoned.

The verification process is completed when you have verified that there are no opponent replies, on any level in the variations, which lessen the value of the selected move below the potential value of other candidates.

Check

The step following Verify in the process is Check, with the following sub-steps:



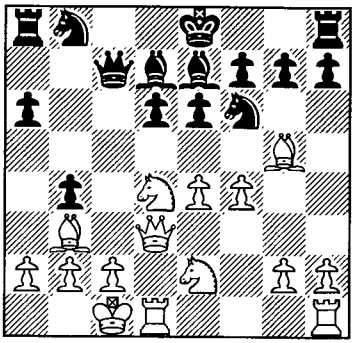
Now that you have selected and verified your best move, it's almost time to execute it. But before you do, you should just check it for obvious blunders.

You might not think that this should be necessary after all the work you did during the verification process, but the mindset is a bit different, and too many of us get a bit tired sometimes and fail to do a proper verification.

Resulting Drawbacks

In the same way you did for your opponent's last move, you look at the resulting drawbacks of your own move. But this time you do it before it is executed.

You first establish whether the intended movement of the piece can be exploited; for example, if the piece can be attacked on its new square. You should then look at what the piece protects. It might not protect another piece, but at least one square will have one less defender after the move. Establish whether or not the created weakness is important and whether it can be exploited.

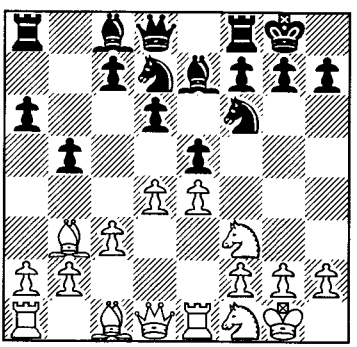


Example 17 (B)

Black wants to play 1...a5 and follow up with 2...a4.

But the move leaves the important square b5 unprotected, and after 2 Nb5 Bxb5 3 Qxb5+ (or even better, 2 f5 e5 3 Bxf6 Bxf6 4 Nb5 Bxb5 5 Qxb5+), White has an edge.

You should also look for drawbacks for other pieces, such as those that will be blocked by the moved piece.

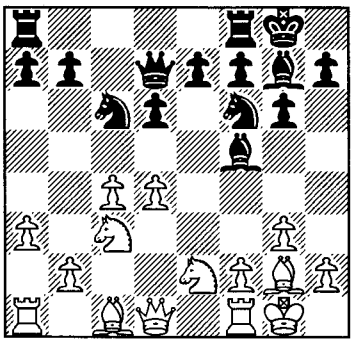


Example 18 (B)

Black is contemplating 1...Re8, but the move leaves the black queen trapped. White can take advantage of this fact by 2 Bxf7+, and Black cannot capture the bishop by 2...Kxf7 because of 3 Ng5+ Kg8 4 Ne6 trapping and winning the queen.

Other Changes

Then continue to note other changes that will result from the move, such as how it will affect imbalances. Will new imbalances be created or will the value of existing ones change?



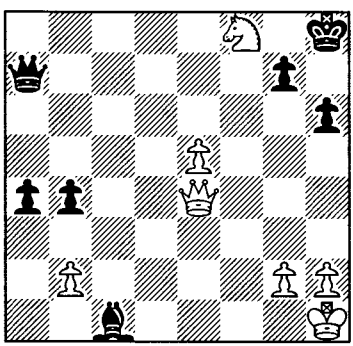
Example 19 (W)

White favours 1 b4, which expands on the queenside and prepares 2 Bb2.

The move also creates potentially weak pawns on c4 and a3, at least temporarily, as well as a weak square on c3. Furthermore, it strengthens the potential power of the black bishop on g7, at least until the diagonal can be challenged safely by Bb2.

Overlooked Replies

As a final check, you should ask yourself whether there are any opponent replies that you have overlooked, especially existing threats and forcing moves.



Example 20 (B)

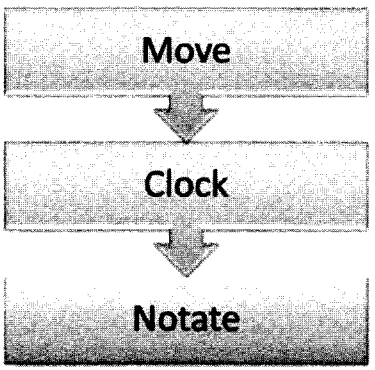
Deep Fritz 10-V.Kramnik, Bonn 2006

White, the computer program *Deep Fritz*, has just played 1 Nxf8, capturing a rook. No lesser player than Vladimir Kramnik missed the threatened checkmate on h7 and played 1...Qe3??.

A simple check taking seconds would have prevented this shocking outcome.

Execute

The step following Check in the process is Execute, with the following sub-steps:



This is where you actually execute your move and is the only physical step, unless you feel most comfortable notating your opponent's move as the first step during the Update.

Move

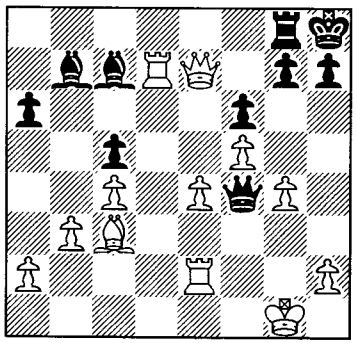
Make the move you have selected on the board. Some players like to make a bit of a show when moving their piece, thinking this will make the move look stronger. I personally think you should make all moves the same way, not too fast and not too slow, just firmly moving the piece with confidence. This way you give the appearance of stability and of always knowing what you are doing.

Clock

After making the move, start your opponent's clock. You should also be aware of how much time you have left and how you want to use it for the remaining moves. Recognize at what point you will need to start playing slightly faster.

Keeping track of time and using it in an optimized manner is crucial. Way too many games, even at the highest level, are just plain lost because of time trouble.

What is the use of selecting the absolute best moves half of the game and then getting into time trouble and selecting a catastrophic move?



Example 21 (B)

With both players literally having seconds left on the clock, Black captured with 1...Bxe4, and after 2 Qxe4 he would have been even more lost than he had been previously.

Instead, White thought he could force matters by 2 Bxf6?, but was swiftly checkmated: 2...Qxg4+ 3 Kf1 Qf3+ 4 Ke1 Qh1+ 5 Kd2 Bf4+ 6 Kc3 Qc1+ 7 Rc2 Qxc2 mate.

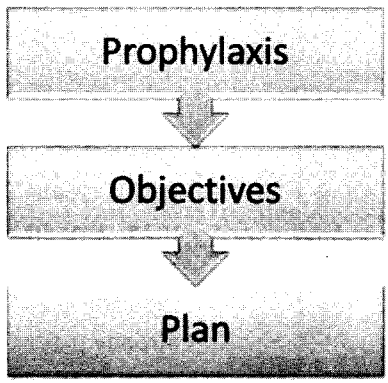
Don't let your opponent's time affect you in any way. Do not play faster just because your opponent has to or wants to!

Notate

The next step is to write down your opponent's last move, if you haven't already done so, and your own move. Do not write down anything else.

Prepare

The step following Execute in the process is Prepare, with the following sub-steps:



Previous steps have been all about selecting and executing your best move. But what about planning? What about imbalances? What about objectives and all the other parts of chess?

Well, ideally we use our own time to calculate the hard facts and the things we need to have full information to do, and then think about strategy during our opponent's time.

Since strategy is an important part of figuring out which move is actually your best, and since you cannot control the amount of time your opponent spends on his moves, this preparation step might sometimes have to be made during your own time.

On the other hand, since strategic elements usually span several moves, you might not have to dive into the strategic details until your opponent actually gives you some time to do so on his clock.

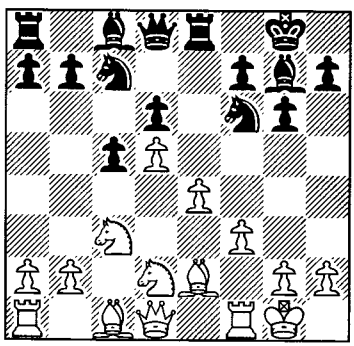
You need to have enough knowledge about your openings and the plans associated with them, as well as how to spot imbalances and how to handle them, to be able to quickly and even intuitively recognize your opponent's feasible plans and your own objectives.

Prophylaxis

The first thing to do is to work out what your opponent wants to achieve. You need to figure out not only what he is trying to do, but also if there is actually a stronger plan he could switch to.

Once you think you know your opponent's most dangerous plan, as well as the one he is actually aiming for, you should ask yourself whether there is anything you can do to ruin his plan or at least make it harder.

The most efficient way of doing this is to find an easy way to spoil the plan at a late stage, so that your opponent spends several moves on it, only to find it spoiled by one single efficient stroke.



Example 22 (W)

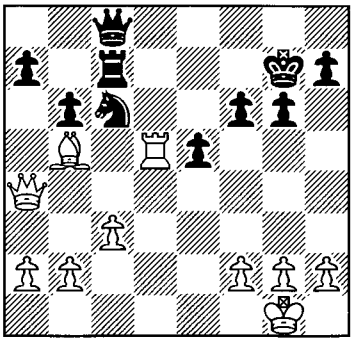
In this typical Benoni position, Black's main plan and chance for counterplay is to achieve the move ...b5. To do this, he typically uses the moves ...Na6-c7 (as already played), ...a6 and ...Rb8.

White can make this plan much more difficult to achieve by 1 a4. Furthermore, if Black replies 1...a6 White can follow up with 2 a5, so that Black will not get a strong pawn front after 3...Rb8 4 Kh1 b5 5 axb6.

Objectives

Next it is time for your own objectives. To find them, you need to recognize what imbalances are present and which ones are the most important. If you are attacking the king, you look for the weakest point in the king's shelter.

Once you have selected which imbalance or weakness to utilize, you should state your objective, be it occupying an open file, launching a pawn storm against the king or putting pressure on a weak pawn.



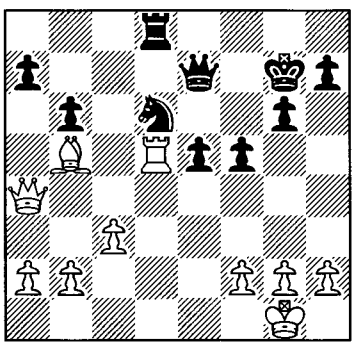
Example 23 (B)

Black is just starting to disentangle from a difficult situation. The two most important imbalances are the open d-file and the different minor pieces.

Black's objective is to challenge the d-file and to manoeuvre his knight to influence the light squares from a safe location.

Plan

Now that you know what you are aiming for, you should ask yourself what position you would like to achieve and where to direct your pieces. When you know this, you have prepared yourself sufficiently for the plan to influence your move selection.



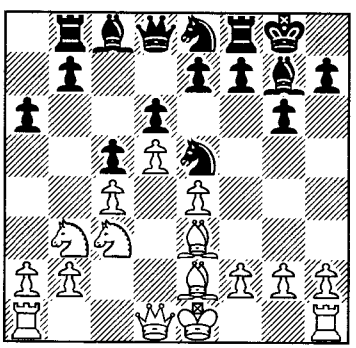
Example 24

By safely placing the knight on d6 with ...N(c6)-e7-f5-d6, supported by the queen on e7, Black will manage to activate his knight. He will also challenge the d-file by bringing the rook from c8 to d8.

Full Example

Let us for a few minutes pretend you are sitting at the board, facing a strong opponent in an important tournament. How would you use the process I described to choose your best move?

You have the Black pieces. You have just executed your last move, ...Nf6-e8, started your opponent's clock and notated your move, noting that you have almost four minutes per move until the first time control. This is what you see in front of you:



Example 25 (W)

Prepare

Your opponent does not immediately reply and gives you a few minutes on his clock. This is the perfect time for preparing the coming move selection process by looking at strategic considerations.

Since you should know the openings you play, and since in this example you have played the King's Indian with ...c5, you would already know that Black is trying to control the dark squares as well as expand on the queenside by getting in the thrust ...b5.

White on the other hand is trying to control and expand in the centre, often by f4 and e5, or to start attacking the black king. He will most probably also try to keep your queenside expansion under control by a4 and even a5.

Thinking prophylactically, you would want to prevent White from advancing pawns to a5, e5 and h5. The f4/e5 advance is the hardest to prevent, since ...g5 is not a realistic option and ...f6 would shut in the bishop and create a weak square

on e6. On the other hand, White does not have any minor pieces (bishops, knights) currently supporting this push, whereas Black would have two minor pieces controlling e5 after ...Nd7.

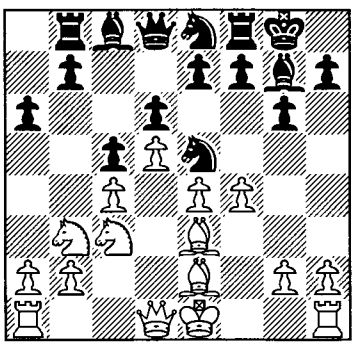
The a4-a5 advance can be prevented by playing ...b6 when White plays a4, since a5 could then be met by ...b5. The h4-h5 advance might be prevented by ...h5 after White plays h4, but it is not immediately clear if that is the best defence.

Your main objective, in tune with the opening and the imbalances at hand, should be to take control of the queenside by expanding the pawn front on that wing. The position you want to achieve is one where the b-pawn has advanced to b5, either sufficiently supported by its pieces, or even sacrificing itself for greater piece activity. You might visualize a knight on c7 and a bishop on d7, both protecting b5.

Okay, your opponent makes a move and starts your clock. It is time to find your best move.

Update

Not surprisingly, White chose 1 f4.



Example 26 (B)

White has just played 1 f4

Looking at the moved pawn, you conclude it now attacks your knight and could move to f5 under more favourable conditions. It also prepares a future e5. Since no realistic equal or stronger threat exists, it appears the knight on e5 has to be moved.

But looking at the drawbacks of 1 f4, you also note that the pawn no longer protects the bishop on e3 and even blocks its diagonal, which makes 1...Bh6 possible. It also opens up the e1-h4 diagonal to the white king, although it looks problematic to exploit this.

Select

Having updated your understanding of the position, it is time to select the move you think is the strongest.

If it wasn't for White's existing threat, moves like 1...Nc7, 1...Bd7 and 1...b6 would be viable candidates according to your plan. But because of the threat, a first move scan immediately removes all candidates but 1...Nd7, 1...Bh6 and 1...Nxc4, even if the forcing moves 1...Nd3+, 1...Nf3+, 1...Ng4 and 1...b5 each deserve a fraction of your time. Always look at all forcing moves, even if they are easily dismissed.

Look at the move with the highest potential value first, no matter how low you believe its true value will prove to be. This means you should always look at the most forcing moves first.

In the position before you, 1...Nxc4 is the most forcing of the candidates left after the first scan, and should be analysed first. It is possible you don't really believe it to have much of a value, and you might even have mistakenly removed it during the first scan, but until you have convinced yourself it is not the strongest candidate, it should be analysed, and analysed first.

After 1...Nxc4 2 Bxc4 b5 3 Be2, it is evident that if nothing else, the move makes your plan of queenside expansion an immediate reality. But achieving one's plan is rarely worth a piece for a pawn. Let us look a bit further, 3...b4 4 Nb1 Bxb2. Aha! The bishop is also set free and rules the dark squares!

Of course, White can instead play 4 Na4 Bd7 5 Nd2 Qa5 6 b3 Bxa1 7 Qxa1 Bxa4 8 bxa4 Qxa4 and you reach a position where you have a rook and two pawns for two minor pieces – an imbalanced material distribution.

Now that you have looked deep enough into the abyss of 1...Nxc4 to gain an initial grasp of its value, it is time to ask yourself whether there is any other candidate with a potential value higher than your perceived minimum value of 1...Nxc4.

Because of its tactical complexity, the value of 1...Nxc4 is probably not clear to you, but at a minimum it looks like it executes your plan, albeit in an unusual manner, and gives you a material imbalance to work with.

Despite this, you will probably realize that the potential highest value of both 1...Nd7 and 1...Bh6 are higher than the minimum value of 1...Nxc4, so you have to consider those moves too.

The candidate with the highest potential value after 1...Nxc4 seems to be 1...Bh6, since it is more aggressive than the retreating 1...Nd7.

Looking at 1...Bh6, you will soon notice that it has its drawbacks. One of them is the possibility of White pushing the g-pawn to g5; another, stronger plan is to

simply protect the bishop on e3 by 2 Qd2, forcing the knight to either retreat to d7 anyway, or 2...Ng4 3 Bxg4 Bxg4 4 f5 Bxe3 (4...Bg7 5 h3 Bh5 6 g4 traps the bishop) 5 Qxe3 gxf5 6 Qh6 Ng7 7 h3 Bh5 8 exf5 f6 9 0-0. Even if you play 9...b5 here, I think you would prefer White's attack. At this point, 1...Bh6 does not seem stronger than 1...Nxc4.

There remains the retreat 1...Nd7. Is it potentially stronger than 1...Nxc4? Quite possibly, even if it is a bit passive. White cannot continue with 2 e5 directly and will most probably opt for 2 a4. After your planned 2...b6 3 0-0 Nc7, it looks like it will be hard to get in your liberating ...b5, and your position is passive but quite possibly tenable.

When comparing your possible value for 1...Nxc4 with the one for 1...Nd7, you might prefer 1...Nxc4. Don't forget that passivity in itself is dangerous and there is nothing guaranteeing you a draw just because you choose quiet moves.

You select 1...Nxc4 as your preferred candidate.

Verify

Now it is time to confirm the merits of your chosen candidate and to verify that it is as strong as you think. To do this, you look for improvements for your opponent. What can White do after 1...Nxc4 that would lessen the value of the move?

Well, it is obvious that White has to answer with 2 Bxc4, and after 2...b5, 3 Nxb5 axb5 4 Be2 Bxb2 would only help Black. Instead, the bishop has to retreat and it does not seem to matter where to. 3 Be2 is the natural choice.

But after 3...b4 4 Na4 (4 Nb1 allowing 4...Bxb2 cannot possibly be better) 4...Bd7, since Black will regain material, White might continue 5 Naxc5 dxc5 6 Qc2 Ba4 7 Bxc5 a5 8 e5, and Black's position looks as if it is ready to collapse.

To make things even more obvious, White can still play 5 Nd2, because after 5...Qa5 6 b3 Bxa1 7 Qxa1 Bxa4, he continues 8 Nc4 and does not lose the a-pawn.

The conclusion has to be that, despite looking promising, 1...Nxc4 does not stand the test of verification. It no longer looks stronger than 1...Nd7.

Can you find an improvement to your variations making 1...Nxc4 strong again? Didn't think so. You have to return to your next best candidate 1...Nd7 and verify its value.

Since the variations for 1...Nd7 are more strategic than tactical, the value of 1...Nd7 is much easier to verify. Not much needs to be added.

You select 1...Nd7 as your best move.

Check

Before you actually make the move, you look at its drawbacks, other changes, and overlooked replies. The knight no longer attacks the important squares c4, d3 and g4, and it completely blocks the bishop on c8. It does, however, control e5 and frees the bishop on g7. Also, the move ...e5 suddenly becomes a viable candidate.

No threats or other replies have been overlooked.

Execute

At last it is time to make your chosen move, start the opponent's clock and notate both your moves. You notice you spent no less than eight minutes on the move, but it was a potentially critical moment in the game and you still have on average more than three minutes to spend on each remaining move before the time control.

Now it is time to start looking at that plan you started to prepare the last time your opponent's time was ticking.

Part Two
Potential Candidate Moves

When performing the move scan during selection, it is important to immediately, or with very little analysis, sort out which moves have the potential to become candidate moves.

For this to be possible, you need to know by heart the different types of moves that are potentially interesting, and almost subconsciously identify them during the scan.

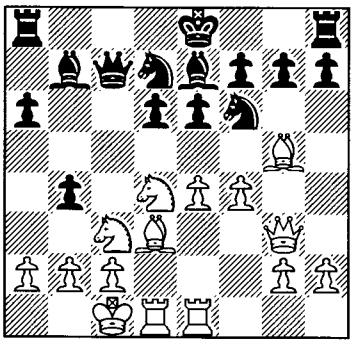
If you have to stop to remember the different move types, or if you do one scan per type, the move scan will take too much of your precious time.

Let's go through the different types of potential candidate moves. But remember, the following section describes possible candidate moves. Once you have identified these, you still have to do the selection and verification processes, the exception being known moves.

Known Moves

A "known move" is a move you know is your "best" move in a given position. There are basically two different types of known moves:

- Moves in a known opening variation
- Moves in a known theoretical endgame

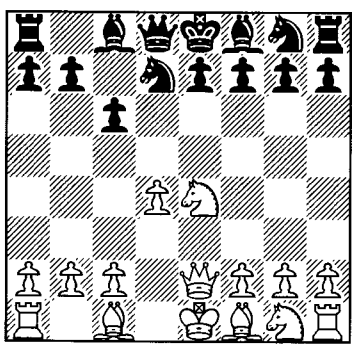


Example 27 (W)

In this well-known Sicilian position, White knows the strong sacrifice 1 Nd5 exd5 2 exd5 and executes it without delay.

Known moves should be executed immediately, since this saves time. For this to be valid advice, it is important to realize that the position at hand needs to exactly match the position you remember.

It is quite common that the position is only almost the same, or even only resembles a known position. In these cases, the move suggested by your knowledge should obviously still be a candidate, but should be verified and checked like any other.



Example 28 (B)

White has just played 5 Qe2 instead of the normal 5 Nf3. Given that Black previously played ...Nd7 to be able to follow up with ...Ngf6 without risking a bad pawn structure, the standard move for Black would be 5...Ngf6. Here this would obviously be a fatal mistake, because of 6 Nd6 mate, a known opening trap.

Forcing Moves

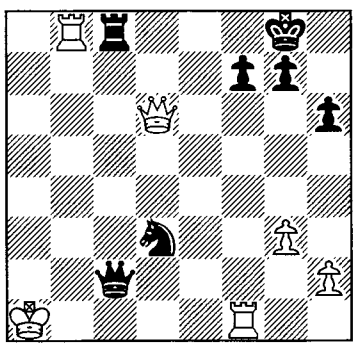
If the position is not known enough for you to be able to immediately execute a known move, you should look at forcing moves before any other moves.

A forcing move is a move limiting the opponent's possible replies. By their very limiting nature, they are usually easier to evaluate than other moves. They also usually lead to either quick victory or equally quick defeat and therefore should rise to the top of the candidate list.

Listed in order of decreasing force, the forcing moves are:

- Checks
- Mating threats
- Captures
- Promotions
- Threats to more valuable pieces
- Threats to inadequately protected pieces
- Quiet forcing moves

All of these are quite self-explanatory, except for the final one. A quiet forcing move is basically any non-violent move still having a limiting effect on the opponent's possible replies. These moves are often hard to find and normally do not immediately stand out to you during the scan.



Example 29 (B)

After the quiet looking 1...Kh7!, Black's threats, including 2...Rc4, can no longer be met.

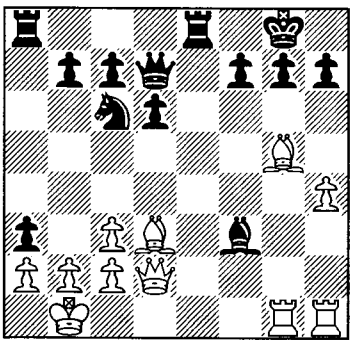
There are two particular situations where you can easily miss a forced move if you don't make a habit of always looking for them:

- When the opponent is threatening something
- When the opponent has made a capture

In both these situations, you are most probably programmed to react by meeting the threat or by recapturing the piece. The good news is that so is your opponent, so if you do something else he might have overlooked it and it might have a deci-

sive effect on the game.

If your opponent threatens something, always ask yourself whether you have to meet the threat or whether you have an equal or even stronger threat. You may find that this makes it possible for you to pursue your own plan instead of adapting to your opponent's.

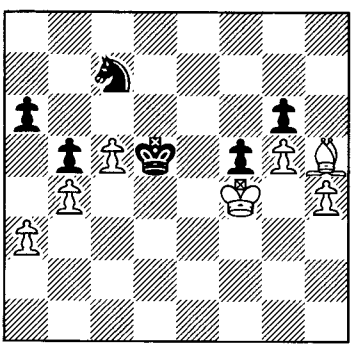


Example 30 (W)

Black is threatening 1...Bxh1, but White has a stronger threat in 1 Bf6!.

If Black captures the rook, checkmate will follow with 1...Bxh1 2 Rxg7+ Kf8 (or 2...Kh8 3 Rg1 mate) 3 Rg8+ Kxg8 4 Qg5+ Kf8 5 Qg7 mate.

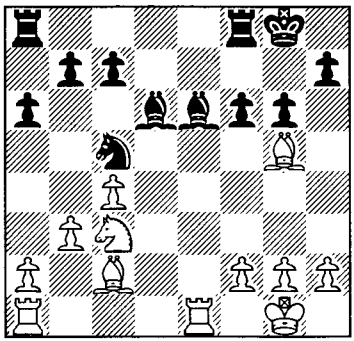
When your opponent makes a capture, don't immediately recapture, but look for a forcing "zwischenzug".



Example 31 (B)

White has just captured a pawn with 1 Bxh5, counting on 1...gxh5 2 Kxf5 with a decisive advantage. But Black has the zwischenzug 1...Ne6+!, which instead leaves Black with the winning position.

Needless to say, whenever you decide not to meet a threat or not to recapture, the price for miscalculating can be very high and easily lead to loss. Be careful and accurate, but trust your calculations and don't fear ghosts!



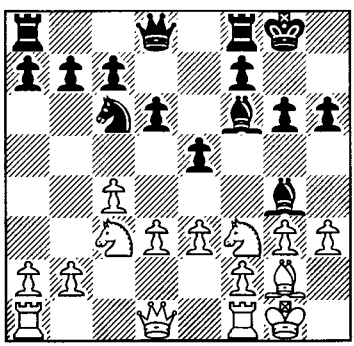
Example 32 (W)

Black is threatening 1...fxg5, but White thinks he has an equally strong threat in 1 b4, having seen 1...fxg5 2 bxc5 Bxc5 3 Rxe6 Bxf2+ (or 3...Rxf2 4 Ne4) 4 Kh1.

But Black followed up with 4...Bd4 and won back the piece, leaving White two pawns down with not enough compensation.

Moves Meeting Threats

Obviously, the moves that meet the identified opponent threats should be candidates. Even when you have identified a forcing candidate, it might still be stronger to just meet the threat.



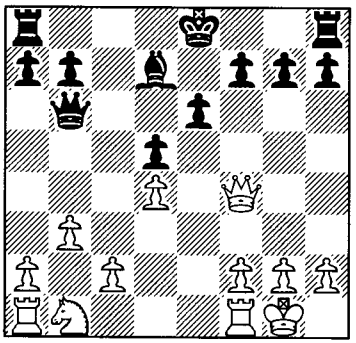
Example 33 (B)

White is threatening the black bishop on g4. Black easily meets the threat by moving it or by capturing the knight. Black chose 1...Be6.

Principled and Thematic Moves

Principled moves are moves suggested by general principles, like controlling an open file, placing a knight on a strong square, or even castling.

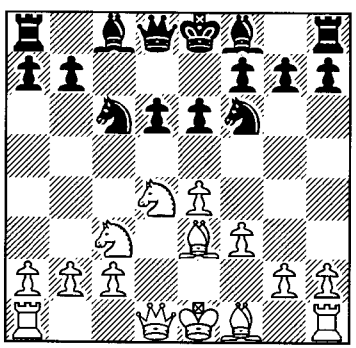
These principles are distilled from collective grandmaster experience and so should definitely be taken into account.



Example 34 (B)

Black identifies the open file and naturally chooses the principled 1...Rc8.

Thematic moves are ones which, for some reason, you think you would normally play "in this kind of position". The position might be from an opening you know well, where you know which moves are "normal"; or you might recognize a strategic or combinational pattern and know the typical associated moves; or you see the possibility of an attack and again know the moves to make it work.

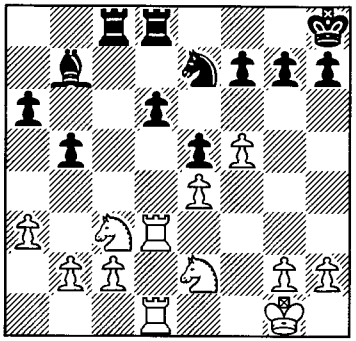


Example 35 (B)

Black gets the opportunity to execute one of the thematic moves in the Sicilian by 7...d5.

Pawn Breaks

Pawn moves which alter pawn formations create and change static imbalances, especially open files, half-open files and weak squares. These pawn moves should always be candidates. Remember, though, that all pawn moves are irreversible and should be carefully verified.



Example 36 (B)

By 1...d5, Black is able to complicate the play and liberate his pieces. White chose to answer with 2 exd5 (2 Nxd5 is stronger), and after 2...Nxf5 3 Rf1 3 Nd6, Black took over the initiative.

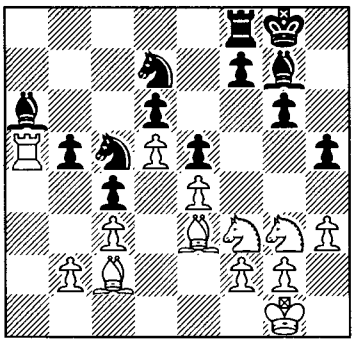
Moves as Part of a Plan

Grandmasters will tell you that you always need a plan, and even that a bad plan is better than no plan at all. But remember that a plan can be very simple. It may be to exchange a bad bishop, or to secure and occupy a certain square, or to advance a passed pawn. In fact, even grandmaster plans are often quite short, contrary to popular belief.

If you know your openings, endgames, combinational patterns and your imbalances, many plans will be almost subconscious, but it is important to know by which moves you want to implement a plan.

This candidate category often suggests the same moves as at least one of the others. This is quite natural, since plans should have a firm foundation in the position's demands and therefore should be founded on imbalances, general principles or other factors. When you think about it, even combinations can be seen as plans with a very specific objective.

Moves that are part of your plan can be identified during the move preparation (Prepare) and are of course candidate moves.



Example 37 (W)

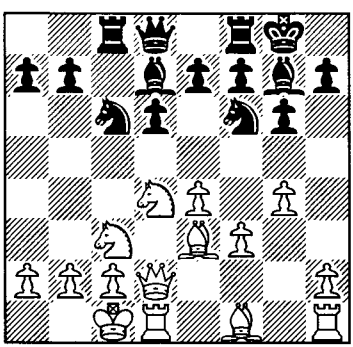
White is planning to prepare b4, but does not want to exchange a bishop for a knight. He therefore plans the manoeuvre N(g3)-f1-d2 in preparation for b4.

1 Nf1 is the candidate part of the plan.

Prophylactic Moves

One of the most important qualities of a strong player, if not *the* most important, is the ability to identify the opponent's possibilities, his plans and his desirable moves, and to prevent them or figure out when and how they should be met.

These prophylactic moves are also identified during the move preparation (Prepare).



Example 38 (W)

A common type of prophylaxis is to disrupt the opponent's attacking plans or tactical patterns by changing the location of the king.

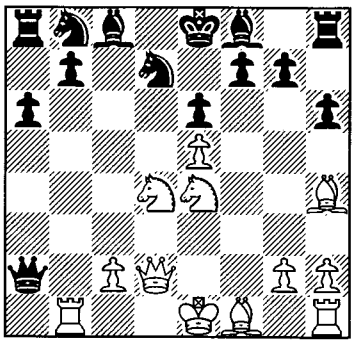
White can avoid several potential dangers along the c-file or the c1-h6 diagonal by moving the king: 1 Kb1.

Moves Creating Tactical Patterns

Any moves creating tactical patterns that you recognize should be considered.

The most common moves in this category are those which create a linear contact between pieces. The pin is one example of this and the potential discovered attack is another. Even putting a rook or a bishop on the same file or diagonal as the opponent's king or queen can potentially be very important later on.

Another quite common type of move is one which creates a fork pattern for a knight to work on, but many others are possible. It all depends on which tactical patterns you intuitively recognize.

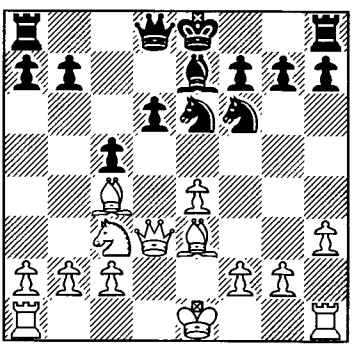


Example 39 (B)

The black king will still be in the centre for a couple of moves, and White is already eyeing d8 with the bishop. With 1 Rd1, a mating pattern along the d-file is created, in many variations indirectly protecting the pawn on e5. For example, 1...Nxe5 2 Nb5 Be7 3 Qd8+ Bxd8 4 Rd8 mate.

Moves Aimed at Imbalances

Moves which are aimed at imbalances are almost by definition also part of a plan, even if the plan itself might only be in your subconscious thinking. These moves can be listed as a separate type of candidate in the cases where you haven't taken the time to create a conscious plan.



Example 40 (W)

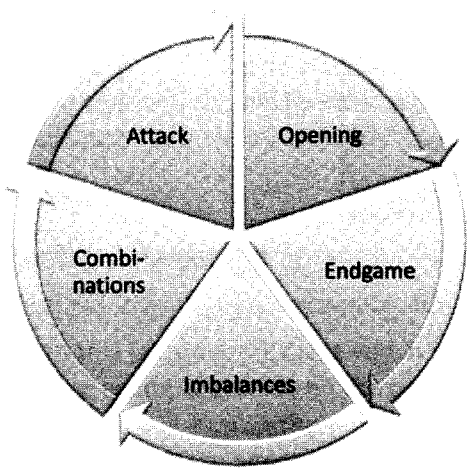
White has identified d5 as a weak square for Black and can occupy it by 1 Nd5.

Part Three
Knowledge

Nothing is as important in chess as knowledge. With enough knowledge, in the form of recognizing patterns with associated plausible plans and viable moves, top players can play excellent games using literally no time.

Of course, having both the skills and the time on the clock to build upon this knowledge adds up to even more, especially when governed by a pragmatic thinking process, but don't underestimate the pure power of knowing thousands and thousands of patterns.

To use the suggested thinking process, you need to have enough conscious and subconscious knowledge for the candidate moves, variations and plans to almost suggest themselves. While studying the different kinds of knowledge needed, I have distilled five distinct areas of particular importance:



Obviously, you need knowledge around the **opening**, especially around the variations you select as part of your opening repertoire. It is also obvious you need extensive **endgame** knowledge, not only around theoretical endgames, but also when it comes to technical endgames.

Many books and trainers will then tell you about tactical versus positional play. Since as you will see later on, I regard calculation and planning as skills rather than knowledge, it is the **imbalances** of the position and the **combinations** hidden in the variations which constitute the actual knowledge.

It is important that you know thousands of easy and medium combinations to an extent where they become an integral part of your variations. It is equally important you can immediately spot the imbalances of a position and know the basic treatment of them.

The last area may not be so obvious, but the **attack** is such a central part of winning chess games and has so many unique attributes, that I think it should be singled out as an area in itself. Knowing how to create and sustain an attack and an initiative, and the typical means and patterns to do so, is such an integral part of modern chess that it simply cannot be overlooked.

In this area I also include dynamism and the constant fight for the initiative, which might not necessarily constitute an attack on the king, but which shares most of its peculiarities.

Some might argue that if attack is an area, so should defence. But even if much can be said about defence, I think that what is said for imbalances and planning, as well as for attack and mental preparation, constitutes most of what defence is all about. Remember, what I describe under attack is more the dynamism of modern chess.

I cannot even start to try giving you all the knowledge you need to become a strong player, but I will describe all the different areas and try to explain what I perceive as most important for each of them. The rest is up to the reader.

Opening

The opening is where you mobilize your forces and shape the battlefield. Needless to say, if you get yourself into a weak position in the opening, you immediately have a disadvantage, and your middlegame and even your endgame will suffer.

Way too many players treat the opening lightly and mechanically, bringing their pieces out without taking into account what the position asks for or how the opponent's moves change the game through threats, opportunities and mistakes.

The knowledge you need about the opening basically comes in two forms:

- General opening knowledge, in most cases valid for all openings
- Specific opening knowledge around the openings you choose to use

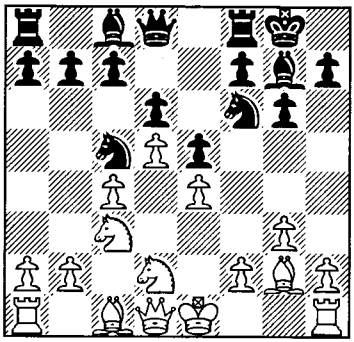
The basics of the general knowledge are what we all learn very early on, which is probably why we tend to treat it too mechanically. We learn to bring the minor pieces out, then castle and then bring our major pieces (queens, rooks) to open or potentially open files, all of this while keeping control of the centre. All this is still good advice, but we need to understand what we are doing.

There is another danger in specific opening knowledge, where players memorize opening variations, usually without bothering to understand the ideas and typical mechanisms of the opening.

This can even be more dangerous than not knowing any opening theory, since you might not have understood some of the moves you made, and have little knowledge of what to do once the opponent makes an unanticipated move or when you run out of known moves.

It is true that you should know opening variations, and I am a believer in executing them without wasting time, but you should already be aware of the ideas and the mechanisms of them, having prepared them at home.

And once you have to choose the moves yourself, you should understand why you are playing a move and why you are playing the moves in a certain order. You should also constantly keep track of how the position changes and what threats and opportunities arise, so you can adjust your opening accordingly.



Example 41 (B)

White just played 1 Nf3-d2. If Black hadn't looked for opportunities at this early stage in the opening, the simple 1...Nd3+ could easily have been overlooked in favour of the standard 1...a5.

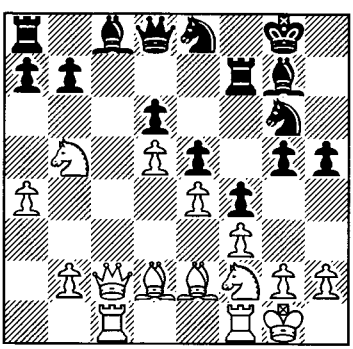
Development

We develop our pieces to make their power felt on the board. Until you have established that power, you risk being overpowered by your opponent.

Mobilization

When bringing a piece out, your aim is to mobilize its power. If you develop a piece on a square where it cannot show its power, it is not really mobilized. The move could still be a perfectly viable one; for example, to get the piece out of the way of other pieces, or to put it on a temporary square on the journey to a better one.

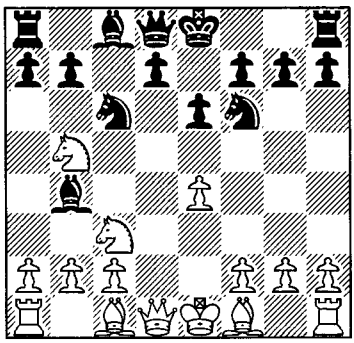
It also means that sometimes a piece does not need to be moved to be mobilized. The most common example of this is a bishop or a rook exerting perfect power from its original square.



Example 42 (B)

The black bishop on c8 is bearing down on the white king position. It is a vital piece in the attack, without being moved from its original square.

To get a feeling of how much mobilization is left and who has an advantage in development, count the number of pieces still not showing their power and add the number of moves to get the king into a safe position. The player with the lowest number has the advantage in development and the difference between the two players' mobilizations gives you a hint of how big the advantage is.

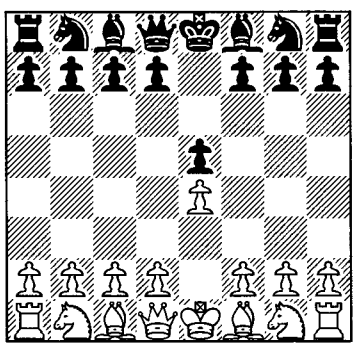


Example 43 (W)

In this position, it will take White three moves to develop his bishops and bring his king into safety.

Since Black has only one bishop to mobilize, one might think Black is ahead in mobilization. But it will take at least two moves for Black to mobilize his bishop, possibly more, so White can even be seen as being ahead.

Since time is so important, and since we want to mobilize faster than our opponent, any mobilizing moves which simultaneously make threats that have to be met will slow down your opponent, unless he can meet the threats by mobilizing moves.



Example 44 (W)

After 1 e4 e5, the move 2 Nf3 mobilizes the white knight and at the same time threatens to capture the black pawn.

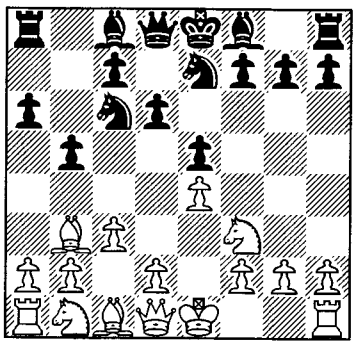
Black can reply with 2...Nc6, simultaneously mobilizing a piece and protecting the pawn.

For similar reasons, it is also obvious that you should avoid moving the same piece twice during the mobilization, unless you have a good reason for doing so.

One reason could be that you gain something else by moving the piece twice. If

you do this, you are basically trading time for something else, like material, space or structure. This concept is discussed later on, when we talk about imbalances. You will have to carefully weigh what you gain with what you lose.

A perfectly good reason for moving a piece twice is if, by doing so, you slow down the opponent's mobilization or pose him challenges he will have to solve. This way, a single move from you can cost the opponent several moves to meet. It is obviously the difference in mobilization between you and your opponent that is the important factor, not how far your mobilization has progressed.

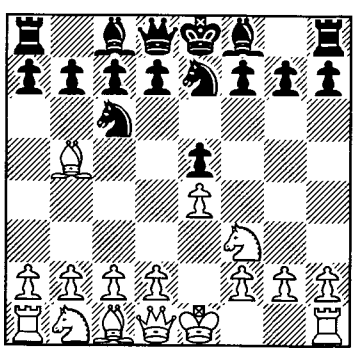


Example 45 (W)

By moving the knight twice with 1 Ng5!, White poses enough problems for Black to easily make up for the discontinued development.

Since 1...Be6 loses a pawn, Black has to defend by 1...d5, but then 2 Qh5 g6 3 Qf3 f5 4 exd5 is advantageous for White.

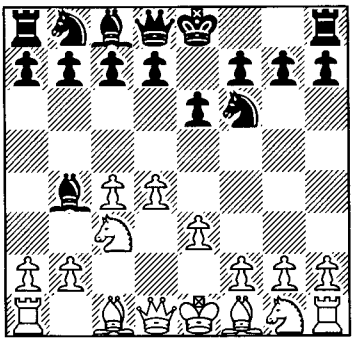
As a general rule, you should avoid forcing through the exchange of pieces during mobilization. When you exchange one of your pieces, most often you have already spent at least one move, possibly even more, to mobilize it. Furthermore, even if both exchanged pieces have made the same number of mobilizing moves, your opponent's recapture often mobilizes another piece, helping it to advance to a more active square.



Example 46 (W)

If White were to exchange by 4 Bxc6 Nxc6, he would remove two well developed pieces from the board, one from each side, but he would also help Black to bring his other knight into a better position, thereby mobilizing it.

That said, mobilization is not everything, and by exchanging you can also create other imbalances that you desire. In most openings you will find a few early exchanges of pawns and often a set of minor pieces to create imbalances to build on.



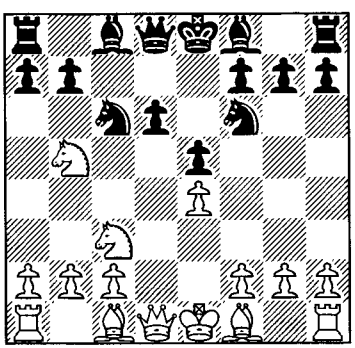
Example 47 (B)

In the Nimzo-Indian, Black readily hands over the bishop pair to White by ...Bxc3. In return, he often creates doubled pawns for White and a weak pawn (or square) on c4.

Ideal Squares

To mobilize your pieces to exert as much power as possible, you need to figure out on which squares to put them. For every piece, you should ask yourself on which square it contributes the most to your total power.

When doing so, it is important not only to look at the piece by itself, but how well it collaborates with the other pieces, and how consistent its power would be with the overall plan of the opening.



Example 48 (W)

In the Sicilian Sveshnikov, Black leaves a weak square at d5, which is an ideal place for a white knight.

The ideal square for White's dark-squared bishop is to support the control of d5 by pinning and threatening the black knight from g5.

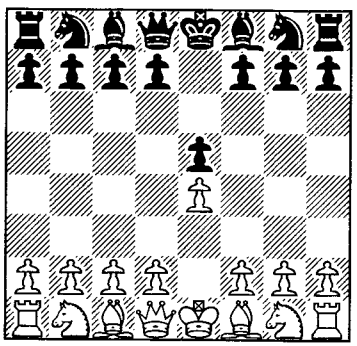
You will find that for some pieces, depending on the position at hand, the ideal square is easy to find. Yet for other pieces, there seems to be more than one square from where the piece could show its power. You will also realize that the best square will depend on what the opponent does and how the position evolves.

Move Order

Since the ideal square for a piece will sometimes depend on what your opponent does, you should try to postpone moving it until you know more. Move the pieces with the obvious best squares first.

This is one of the main reasons why we usually move at least one knight before we move a bishop. Another reason is that the knight possesses almost no power on its original square.

Generally, the best squares for the knights are those that control the centre the most, which for White are f3 and c3. The bishops, on the other hand, have several squares from which they exert almost the same power, but on different diagonals.



Example 49 (W)

After 1 e4 e5, it is natural to follow up with 2 Nf3, not only because it threatens the black pawn, but also because it is obvious where the knight belongs.

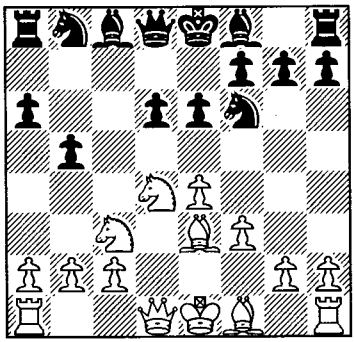
The white bishop, on the other hand, can move to c4, b5 or even e2 depending on what Black chooses to do.

We all know we should bring out the minor pieces before the major ones, because the major pieces are worth more and can easily get harassed by the minor pieces.

Once the minor pieces are mobilized, it becomes easier to recognize where we can safely put the rest, especially the queen. The rooks are, of course, also harder to develop early because of the need for them to move along the crowded first rank.

Sometimes it seems to matter little what move order we choose, but more often than not, it does. If we have two ways of reaching the same position, using different move orders, we should ask ourselves in what way the two move orders differ when it comes to the opponent's options.

If one of the move orders gives the opponent no extra option, it is the principled and usually the correct way to go, because otherwise you risk underestimating or miscalculating the alternative path. This is especially true if the extra option opens up possibilities of counterplay.



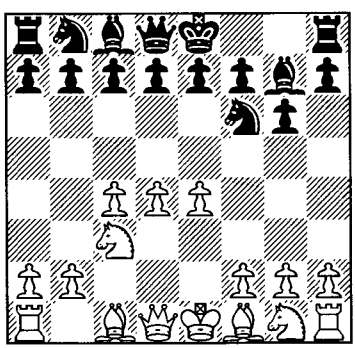
Example 50 (W)

White is planning the moves Qd2, 0-0-0 and g4.

By playing 8 Qd2 first, White would give Black the choice of 8...Nbd7 9 g4 Nb6, intending 10 g5 Nfd7.

8 g4 on the other hand, does not give Black that opportunity, since after 8...Nbd7 9 g5, the black knight cannot flee to the already occupied d7.

On the other hand, if the extra option is clearly inferior, especially if you already know it is but your opponent might not, giving this option to the opponent could make him go astray or at least spend time investigating it. It depends on the position and on how comfortable you are with the variations, but if in doubt, choose the principled way.



Example 51 (B)

Black is planning the two moves: ...d6 and ...0-0.

White is threatening 5 e5, so the most common reply from Black is to play 4...d6 first, followed by 5...0-0.

But transposing the moves by first playing 4...0-0 is perfectly viable, as 5 e5 Ne8, followed by ...d6 and sometimes ...c5, attacking the white centre, is known to be good for Black

Often the two different move orders both give the opponent extra options. What is important is that you get to understand the difference between them and choose the one giving the opponent the fewest opportunities.

Castling

Beginners often don't bother to castle, since they feel it is a passive move and they

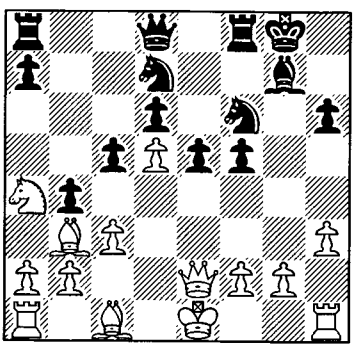
rather want to attack with the few pieces they have mobilized. Once they start facing stronger players, they learn the hard way how insecure the uncastled king is, especially since we advance our centre pawns early on and even start opening central files.

That is why we learn the importance of castling, and that we should castle as early as possible. A castled king is tucked away in the corner and therefore harder to get to, and we can keep the pawns in front of it untouched, creating a fortress.

Castling is also a swift way to get one of the rooks into play and is therefore also an active move, something beginners often fail to realize.

Still, there are drawbacks with castling. One of the greatest drawbacks is the one of commitment. Castling is irrevocable, as the king is practically committed to staying on the side where it has castled. Because of this, you should carefully evaluate the positional effects of castling beforehand.

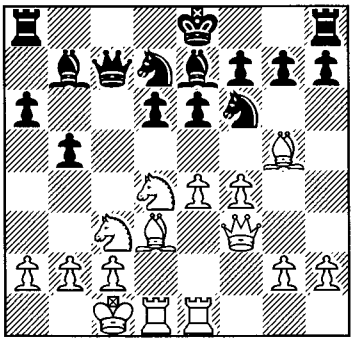
If your opponent has control over the side you are about to castle into, you might want to consider castling on the other side, or postpone castling until you have been able to secure the area.



Example 52 (W)

White has postponed castling to see which side will combine safety and attack. At this point he can choose to castle kingside or to start an attack by 1 g4 and later castle queenside.

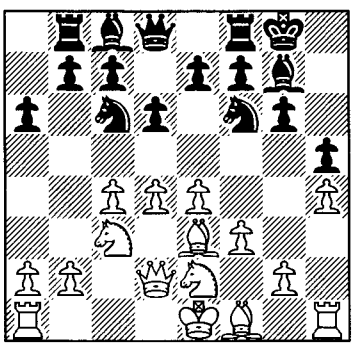
Sometimes it is even safest not to castle at all. This is usually when the centre is either closed, or when you have a firm control of the centre and castling on either flank would be dangerous.



Example 53 (W)

In the Sicilian Najdorf, Black often finds it relatively safer to keep the king in the centre, behind his two central pawns, instead of risking a swift defeat by castling into a kingside attack.

If your opponent has yet to castle, or if you choose to castle on the opposite side from your opponent, there is also the possibility of fierce pawn storms on both flanks. In this case, the player with the quickest pawn storm is often the winner, so before castling into something like that, or giving your opponent that choice, you should have a pretty good idea of what your chances will be.

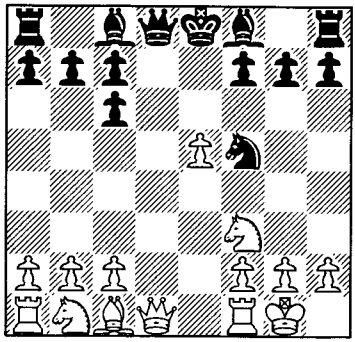


Example 54 (W)

White to move can, and often does, castle queenside in this King's Indian Sämisch position.

Both sides have lined up for a pawn storm on the enemy king, White's assault starting with g4 (having already played h4), and Black's with ...b5.

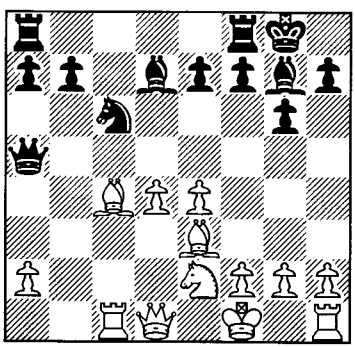
A further reason for not castling is if the endgame is not far away. Sometimes we make major exchanges early on and realize that the king doesn't need protection anymore, and is even a power to include in the game.



Example 55 (W)

In the Berlin Defence, Black allows White to destroy his right to castle, since the exchange of queens lessens the need to protect the king.

In other words, early castling is in more cases than not a very useful thing to do. Get ready to castle as soon as possible, but then castle because you want to and when you want to, not just because you can. And you should be aware of the potential consequences before committing your king.



Example 56 (W)

In this Grünfeld line, White could have castled but chose not to, simply to keep the kingside rook on the h-file and to start an attack by 1 h4.

Board Control

Developing your pieces is important, but to be able to place your pieces on their ideal squares, these squares need to be controlled by you. You need to care about board control.

Even though pieces control squares, board control is most often about the pawns. This is quite natural, since the value of the pawn is less than the value of the pieces. This means that if a pawn threatens a square, no enemy piece can occupy the square without being captured by the pawn.

But making pawn moves to control the board does mean you are not mobilizing pieces, so you will have to balance development with board control.

Centre

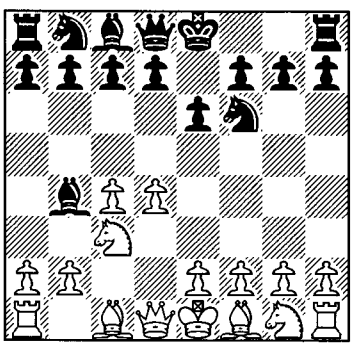
Controlling the centre is essential; don't let anyone tell you otherwise.

All pieces except for the rooks exert their greatest power in the centre. You just have to count the number of squares they can move to when in the centre, and compare this to the number of squares they can move to on the edge or in the corner, to convince yourself about this fact.

The rooks are the exception, which partially explains why they seem to be just as happy exerting their power from the first rank, safely away from being hassled by the other pieces in the centre.

But the centre is also important because from there the pieces can quickly reach all corners of the board, whether they are needed for attack or defence.

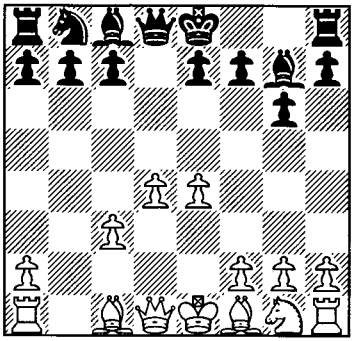
This is why in the early days grandmasters thought they had to "possess" the centre and place their pawns and pieces on central squares. We then discovered that simply controlling the centre is just as good.



Example 57 (W)

In the Nimzo-Indian, Black initially controls the centre without occupying it, first by ...Nf6 and then by pinning the white knight with ...Bb4.

We can even initially give the whole centre to our opponent, but we better start attacking it very quickly, because if we cannot break it apart and regain control of it, we will suffer in the end.



Example 58 (W)

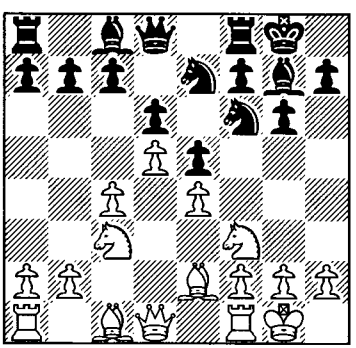
In the Grünfeld, Black allows White to build up an impressive pawn centre, which he starts breaking up and attacking by ...c5, ...Nc6, ...Qa5 and ...Bg4 (pinning and attacking a knight on f3).

So develop your pawns and your pieces with centre control in mind, either by occupying it, by controlling it from a distance, or by planning how to break it up.

Space

The more squares you control, the greater board control you have and the greater space your pieces will have to use for their placement and movements. We will return to the concept of space when we talk about imbalances later on, but it is important to realize that most space is staked out already in the opening.

If you ever feel uncertain which move to play when in the opening, maybe because your minor pieces are already mobilized or it is still uncertain as to what squares they are heading, seriously consider grabbing more space. If you cannot do it in the centre, grab space on the flanks.



Example 59 (W)

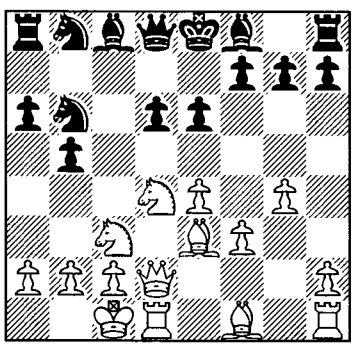
By 1 b4, White grabs space on the queenside. The expansion can continue with c5 and a4.

Structure

The pawns are the foundation on which the pieces stand. They are the backbone of the game and have even poetically been called "the soul of chess". So why then can't we build the structure first, before mobilizing the pieces? After all, before the foundation is laid, it is not evident where the pieces belong.

Well, in modern chess there is a paradox in many opening systems, where one player chooses to build the structure instead of mobilizing pieces. It is a fine line to walk, but if you get away with forming the foundation first, once you catch up in development, you usually gain the upper hand.

If your opponent builds the structure instead of mobilizing pieces, try to find ways to break it down and break through before he catches up in development, even at the cost of material. If you break through, you will often find your lead in development proves overwhelming.



Example 60 (B)

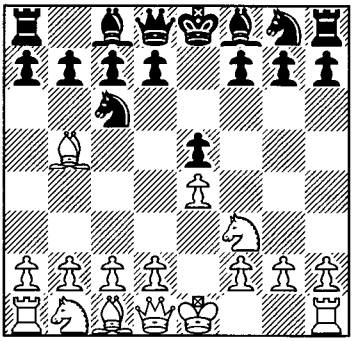
In this treatment of the Sicilian Najdorf, Black has only one piece developed. Instead he has built a structure in the centre and on the queenside. If given time, he will neutralize White's advantage in development.

It is not surprising that White frequently sacrifices to break up this structure and make his superior development felt. After 1...N8d7, 2 Nxb5 axb5 3 Nxb5 is a very popular choice.

The First Move Advantage

White does have a small advantage from the start; he has the right to make the first move. This means he will create the first threats, and Black will have to start meeting them. To keep and grow this small advantage, White will have to keep the initiative, otherwise he will give Black time to start making his own threats and the advantage will evaporate.

Traditionally, this was exactly what Black aimed for: first neutralizing White's advantage and equalizing, then starting to build an advantage of his own. This is the nature of most "open" openings.



Example 61 (B)

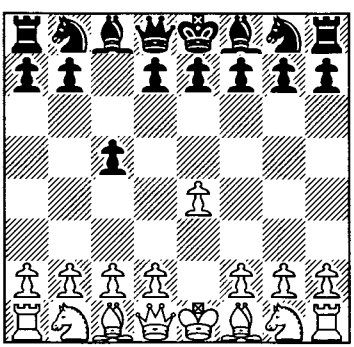
In the Ruy Lopez, White first establishes control of the centre by 1 e4. If Black wants to immediately challenge this, 1...e5 is natural.

But, as we have already seen, since White is first to move, he makes the first threat by 2 Nf3. After Black's defensive move 2...Nc6, White continues by threatening the defending knight by 3 Bb5.

This way White establishes a slight but often continuing edge, known as the "Spanish torture".

However, since the advantage of the first move is such a small one, there is another way for Black to meet it. From the very first moves, Black can create an imbalanced position, where the imbalances will soon be much more important than the first-move advantage.

The path to imbalance can be expanding on different flanks, like in the Sicilian; hitting the white centre with pawns, like in the French or Caro-Kann; or by trying to break it up later, like in the Alekhine. As stated earlier, it can also take the form of building a structure instead of developing, as seen in many opening variations.



Example 62 (W)

In the Sicilian, Black immediately establishes an imbalanced position after 1 e4 c5, expanding on the queenside and leaving the kingside and often initially the centre to White.

This often leads to another imbalance (after d2-d4), with a half-open c-file for Black and a half-open d-file for White.

Both plans to fight for the advantage are perfectly viable. The classical way, to first equalize, is more passive but also less risky. On the other hand, not taking risks

does not mean you won't lose. Not taking risks often also means less chance of winning.

Specifics

Specifics are about knowing your own openings. You should create an opening repertoire, so you know what you want to play against every possible opening from your opponent, or at least against all common openings.

Which openings and opening variations you should play, you have to decide for yourself. You should of course choose openings that are not obviously unsound. I recommend that you choose openings regarded as sound at master and grandmaster level, but not necessarily at top grandmaster level.

Most important though, is that the openings you choose, and the opening repertoire you build, suit your playing style, inspire your creativity, fuel your enthusiasm and bring results. Do not just play what the world champion plays; play something you like and enjoy! That is the only way to get results. And when one opening lets you down too much or too often, either find out why you are failing in it, or switch to another.

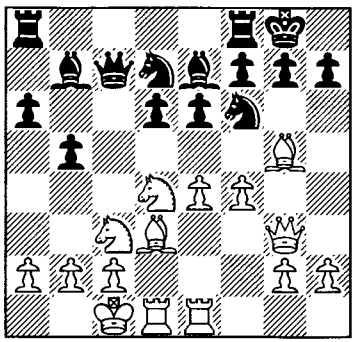
An interesting question is whether you should always play the same narrow set of openings, or learn and play many different ones. This is not at all easy to answer. If you always play the same opening, maybe using a couple of different variations, you will definitely get to play it more often and will have more time to study it, which means you will know it better and become stronger when playing that specific opening.

On the other hand, if you play several different openings, you get a broader understanding of chess openings as a whole, and it becomes almost impossible for any opponent to prepare his opening in advance against you. But you will risk playing inferior moves quite early on.

If you are an aggressive and calculating player, and don't mind or even enjoy going through and learning many opening variations, I would recommend playing a narrow set of openings, learning them deeply and perhaps using a variety of variations within them. Most of your opponents will not know hundreds of variations, but because they know the current main lines, they will think they know the theory. Of course that won't be the case and this is when your built-up knowledge will give you the upper hand.

On the other hand, if you are a positional player, or if you have a hard time remembering variations or just don't like it, choose to play many openings but steer

away from the most popular and theoretical variations. Otherwise it is likely you will get run over by some grandmaster analysis instead of your actual opponent.



Example 63 (W)

Black has just castled, reaching a position White has analysed extensively when preparing his opening repertoire.

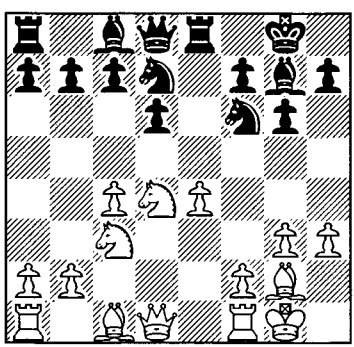
After 1 e5 dxe5 2 fxe5 Nd5 3 Bxe7 Nxe7 4 Bxh7+ Kxh7 5 Nxe6 fxe6 6 Qh3+ Kg8 (or 6...Kg6 7 Qxe6+) 7 Qxe6+ Rf7 8 Rxd7 Qc6 9 Rxe7, Black is lost.

Once you know which openings and which variations you want to play, you also need to estimate how common they are, or will be, in your games. You should obviously spend more time on openings that you play often.

Common Plans

It is vital to know the overall ideas and plans for your chosen openings. This knowledge is what will guide your detailed plans, and even your specific move choices, when your variations run out.

You have to know how the pieces are mobilized, in what order, and why they are mobilized in that way. You also have to know what the opening objectives are and how you normally achieve them.



Example 64 (B)

It may not be immediately obvious, but a common plan for Black in this King's Indian position is to expand on the queenside by preparing ...b5. Note the tremendous potential power the bishop on g7 has on that wing.

Frequent moves in executing this plan are ...a6, ...Rb8, ...Ne5, ...c5 and ...b5. For example, 1...a6 2 Re1 Rb8 3 Be3 Ne5 4 b3 c5 5 Nde2 b5.

Of course, you *could* try to figure all this out over the board, but not only would you waste time, there is also a significant risk you would not select the same objectives or choose the same plan as grandmasters would have.

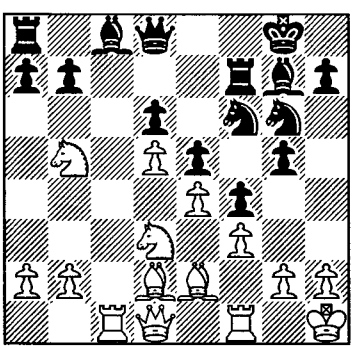
Some of you might argue that this is what chess is all about, and that you would rather find the answer your own way. But scientists don't run out of ideas or get bored just because they actually build on their ancestors' findings. On the contrary, standing on their ancestors' shoulders is how they push the boundaries. The same is true for chess. Chess is rich enough for you to easily use up all your time at the board anyway, and to enjoy your findings just as much.

All openings have a clear agenda. Some create an immediate imbalance on opposite flanks, some fight for the centre, and yet others give up the centre to later break it apart. Some launch pawn storms, some expand flank territory, some aim to enhance tiny advantages, and some build up pressure on open files.

Common Tactics

Club players seem to just love opening traps. And yes, opening traps are part of the tactics you need to know about your openings. Some openings breathe tactics, and some couldn't even be justified if it wasn't for certain tactical specifics.

Tactics is and will always be king. When studying your opening variations or analysing previously played games, keep your eyes open for tactical shots because chances are you will see them again in the same opening, maybe in a slightly different form.



Example 65 (B)

In the King's Indian, if Black can get in 1...g4 before the knight on f6 is forced to retreat to e8 (to defend c7 from invasion), the move ...h5 is not necessary, since 2 fxg4 leaves the pawn on e4 unprotected.

Variations

By now you should recognize that you have to know some opening theory in order to be successful, but how much, and how deep?

Well, some openings are highly tactical and the number of possible variations can be monstrous. In this kind of opening, you need to know a considerable amount of theory and many variations to even start playing it. Just remember that this is true for everyone who plays it, so the important thing is for you to just know the opening better than your opponent.

For openings like this, you should know all the major variation paths for your opponent, and more often than not, you should know them deeply enough to see the worst smoke clear, which could be 10-15 or even 20 moves deep. Some variations are so forced they run right into the endgame.

But that is the scary side of things. In quiet openings, and in rarely played openings, you don't have to know more than 5-10 moves deep and you don't have to know as many variations, since the main lines give you enough guidance for you to find your way using the common plans.

Of course, variations you play often, and variations you think or even know you will face in the next game, will be much more important to know and to rehearse than others. It is also a good idea to expand your variations every time you actually play them. For example, if your opponent deviates from your known variation, include the deviating move into your opening repertoire and see to it that you know how to best meet it next time.

It is true that chess is not about learning opening variations by heart. As a matter of fact, this is exactly what many young players do wrong. But having a solid repertoire and knowing all the important variations by heart is a strong opening foundation to stand on. It saves time and you build a knowledge base of ideas and tactics that you will be able to use in many different situations. Most importantly, once you have established your repertoire in your backbone, it is easy for you to evolve it, change it and add to it.

Endgame

The endgame is said to begin when there is a small number of pieces left on the board. In practical play, this definition is usually a good enough. But something is lost in this description, because whereas the opening has many if not most characteristics in common with the middlegame, the endgame is fundamentally different. The sooner you realize this, the sooner you can start treating it properly.

But why does the number of pieces left on the board have such a profound effect? What changes the characteristics so fundamentally that you cannot apply the same rules, techniques and plans? Aren't the individual characteristics of the remaining pieces the same as in the middlegame?

The answer is that the characteristics of each piece are of course the same – it is still confined to the same rules of how to move – but the context has changed, the context of interaction with other pieces.

The most important context change – the one responsible for the fundamental difference – is that the king no longer needs to be protected, simply because there are too few enemy pieces to checkmate it or even perform any serious harassment. The effect of this is twofold:

- The king can, and should, take part in the game as any other piece, instead of being hidden away and protected.
- To win you have to checkmate, and since checkmate is no longer possible, more material has to be created.

The consequence of the first one is that the king is usually repositioned from the corner of the board to the centre, and the consequence of the second one is that a pawn has to be promoted to a queen.

It follows that the single overall objective of the endgame, except for the following checkmate, is to promote a pawn.

Another effect of the small number of pieces is that the number of viable moves and plans diminishes drastically, which means that utmost precision is needed. One single wrong move, failing on the tiniest finesse, will mean the difference be-

tween success and failure, especially for the defending side. Instinct and intuition have no place in the endgame. Planning, calculation and technique are everything.

Because of the importance of pawns and the decreasing power of pieces, static considerations take precedence over dynamics, and static pawn weaknesses you would hardly even consider in the middlegame suddenly become decisive. Don't make any mistake about this, static weaknesses will bring you down in the endgame.

It seems that the only thing still applicable from the middlegame is that tactics, albeit not as prevalent, is still king. This is easy to forget in the endgame, where planning and technique are so important.

Pawns

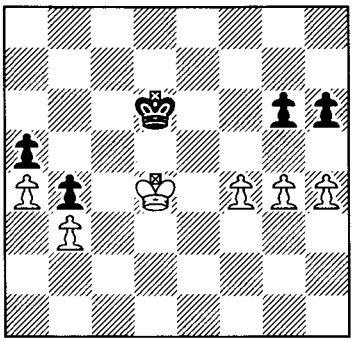
In the endgame, the pawns are your heroes and suddenly they make all the difference. Because of their importance, the player with the material advantage usually avoids pawn exchanges but welcomes piece exchanges.

We will talk more about pawns and statics when we discuss imbalances later on, so here we will concentrate on what is specific to endgames.

Passed

To achieve the objective of promoting a pawn, the pawn first has to become "passed", meaning it cannot be challenged or blocked by any other pawns. Once enemy pieces are the only thing standing between the pawn and its promotion, it is up to your own pieces to prove they can support the pawn all the way.

An important fact to remember is that in pure pawn endgames, where there are only pawns and kings left, an extra pawn almost always wins. The extra pawn often gives you the possibility to force your opponent out of the way.

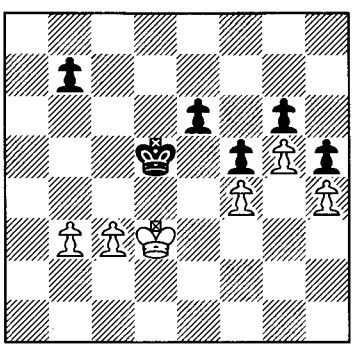


Example 66 (W)

White wins easily by first creating a passed pawn, then advancing it as far as possible, and then when the black king is occupied with the passed pawn, start capturing the remaining black pawns.

For example, 1 f5 gxf5 (or 1...g5 2 hxg5 hxg5 3 Ke4 Ke7 4 Ke5 Kf7 5 f6 Kf8 6 Kf5) 2 gxf5 h5 (or 2...Ke7 3 Ke5 h5 4 f6+ Kf7 5 Kf5 Kf8 6 Kg6 Kg8 7 Kxh5) 3 f6 Ke6 4 Kc5 Kxf6 5 Kb5 Kf5 6 Kxa5 Kg4 7 Kxb4 Kxh4 8 a5 Kg3 9 a6 h4 10 a7 h3 11 a8Q, etc.

When aiming to safely create a passed pawn, beware of situations where a single enemy pawn can prevent two of your pawns from moving. A rule which helps to avoid this is to advance the pawn which has no enemy pawn opposite it *before* advancing other pawns.

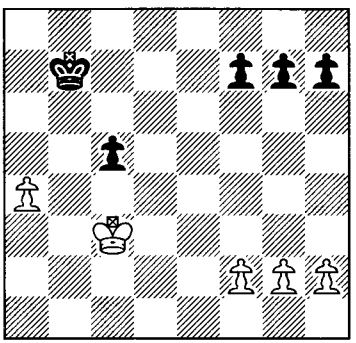


Example 67 (W)

If White Plays 1 b4?, Black draws by 1...b5! 2 c4+ (otherwise Black even wins, e.g. 2 Kd2 Ke4 3 c4 bxc4 4 b5 Kd5 5 b6 Kc6 6 Kc3 Kxb6 7 Kxc4 Kc6, etc) 2...bxc4+ 3 Kc3 e5 4 fxe5 Kxe5 5 Kxc4 Kd6, since White cannot force the b-pawn to promotion, nor capture the g-pawn without allowing Black's f-pawn to promote.

Instead White wins by 1 c4+!, first advancing the pawn which has no opposite enemy pawn: 1...Kc5 2 Kc3 Kd6 3 Kd4 b6 4 b4 Kc6 5 c5 bxc5+ 6 bxc5 Kc7 7 Ke5 Kd7 (7...Kc6 8 Kxe6 Kxc5 9 Kf6) 8 c6+ Kxc6 9 Kxe6, etc.

A passed pawn can often quite easily be caught by the enemy king. However, in these cases it may still be just as decisive as a decoy, forcing the king to abandon its other pawns. Once these pawns fall, the game is usually won. This is why the "outside passed pawn" usually wins in pawn endgames with mutual passed pawns.

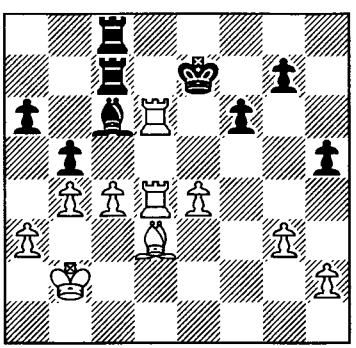


Example 68 (W)

Even though the number of pawns (four each) and passed pawns (one each) are equal, White is winning because at the time Black captures White's passed pawn, the white king, having captured Black's passed pawn, will be closer to the rest of the pawns and will capture them before the black king can come to the rescue.

For example, 1 Kc4 Kb6 2 a5+ Kxa5 3 Kxc5 Ka4 4 Kd6 and White wins.

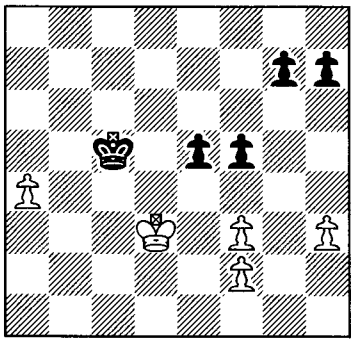
Another commonly used technique, often forgotten by weaker players, is to use the pawn as a decoy for enemy pawns. By temporarily or even permanently sacrificing a pawn, you might create a passed pawn, or you might create serious static weaknesses in the enemy camp, like isolated or doubled pawns, which will prove more important than the extra pawn.



Example 69 (B)

Black is a pawn down, but with 1...h4 2 gxh4 White's kingside pawn structure is shattered and 2...Rh8 gives Black counter-chances.

A special case of this is the pawn breakthrough, creating an unstoppable passed pawn by using the other pawns as decoys.

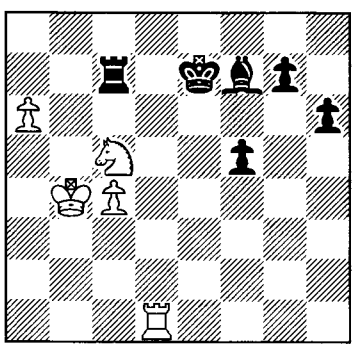


Example 70 (B)

White probably thinks he is winning by virtue of his outside passed pawn, but the black pawn mass is poisonous. Instead Black wins by 1...g5 2 a5 Kb5 3 a6 Kxa6 4 Kc4 h5 5 Kd5 h4 6 Kxe5 g4 7 fxg4 fxg4 8 hxg4 h3.

Of course, if White chooses not to advance with his king, the black king will return to win in the normal way with his extra pawn.

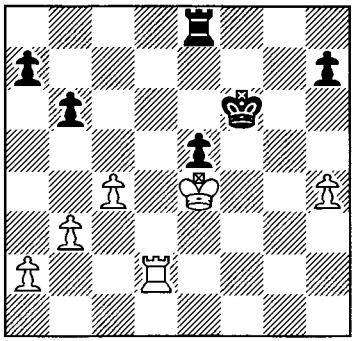
Even when a pawn seems to be firmly stopped by enemy pawns or pieces, the further it is advanced, the shorter its distance to the queening square, the more decoys, sacrifices and tactics can be used to pull it over the finish line. If you can get a pawn safely advanced to the sixth or even seventh rank, it will become a serious nuisance to your opponent, and chances are you can find a way through. But beware of pushing a pawn if it just becomes a weakness, unable to get support from your other forces.



Example 71 (W)

The white pawn is close enough to its promotion square for White to win by 1 Rd7+! Rxd7 2 Nxd7 Kxd7 3 a7.

One last word of warning about overestimating a passed pawn: Remember that a pawn majority can usually create a passed pawn, and in some positions the pawn majority can promote a pawn just as quickly as an already created passed pawn. For example, an isolated passed pawn, safely blocked by the enemy king, could be much weaker than a moving pawn majority on the other flank.



Example 72 (B)

Even though Black has a passed pawn, it is easily blocked by the enemy king. White's pawn majority on the queenside is much more dynamic.

Weak

To help create our winning passed pawns, we can exploit our opponent's weaknesses, either by directly threatening and winning the pawns with pieces, or by splitting them for subsequent capture.

In the endgame you look for exploitable, permanent pawn weaknesses. The decisive weaknesses take the form of:

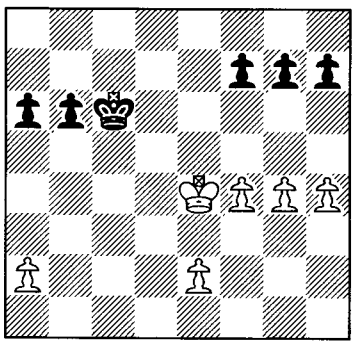
- Isolated pawns
- Doubled pawns
- Backward pawns
- Inflexible pawn chains
- Weak squares and colour complexes
- Open files

Of course dynamic weaknesses can sometimes be decisive since tactics is always king, but the static weaknesses created by the pawn chains dominate the endgame.

As usual, always strike against the opponent's weakest point. Also, remember that a weakness is not really a weakness unless it can be exploited. On the other hand, a potential static weakness in the endgame can easily become real and exploitable later on.

Since weaknesses are so decisive, and since pawn moves cannot be reversed, it is obvious that every pawn move should be very carefully considered. This is even

more important in places where you already have weaknesses. As a rule, try not to make pawn moves where you are weak. If your opponent dominates a flank, try to keep the pawn chain intact. Moving a pawn usually creates weak squares for the enemy pieces, or "hooks" for the enemy pawns to latch onto.



Example 73 (B)

Keeping his kingside pawn chain untouched, Black has at least enough for a draw and can even play for a win, such as with 1...Kc5 2 h5 b5 3 Kd3 a5 4 e4 b4 5 e5 Kd5.

However, any pawn move on the kingside would make Black's task more difficult or even hopeless. For example:

a) 1...g6? 2 Ke5 b5 3 Kf6 a5 4 Kxf7 b4 5 e4 a4 6 e5 b3 7 axb3 axb3 8 e6 b2 9 e7 b1Q 10 e8Q+, etc.

b) 1...f6? 2 Kf5 and now:

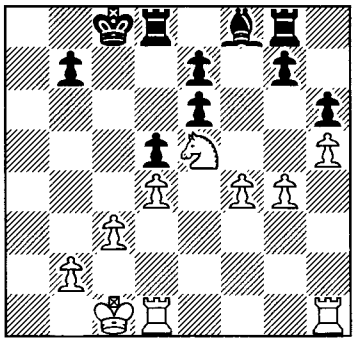
b1) 2...Kd6 3 e4 b5 4 h5 Ke7 5 e5 b4 6 Ke4 a5 7 exf6+ Kxf6 (or 7...exf6 8 Kd5) 8 Kd5 a4 9 Kc4 b3 10 axb3 axb3 (if 10...a3 11 Kc3) 11 Kxb3.

b2) 2...b5 3 h5! a5 4 h6 gxh6 5 Kxf6 b4 6 Ke5! a4 (or 6...Kc5 7 f5) 7 Kd4.

Pieces

The role of the pieces in the endgame is to support the promotion of a pawn. They can do this by actively supporting a passed pawn, by controlling and cutting off enemy pieces, by liquidating enemy pawns, or even by sacrificing themselves to push the pawn the last few squares.

Since the number of pieces is small, the power of the remaining ones is crucial. This is because their relative power (compared to the total piece power) is much higher than in the middlegame. If one of your pieces is immobilized in a single-piece endgame, you have only the power of the king left to help the pawns.



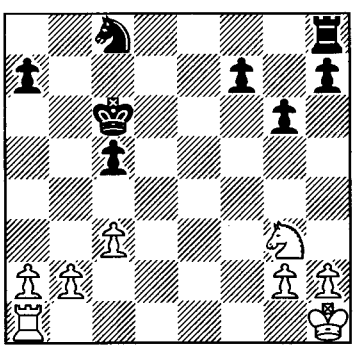
Example 74 (W)

Black is a victim of a positional bind effectively imprisoning two whole pieces, neither of which is able to exert any power.

To increase power as quickly as possible, it also makes sense to try activating the strongest piece first. In the middlegame, not only was the king in danger of being harassed, but the queen and rooks also had to be cautiously mobilized. In the endgame this is no longer true, and so the piece with the greatest power should be brought into battle first.

We all know that the queen is more powerful than the rook, which is more powerful than a minor piece, which is more powerful than the pawn. Since in the endgame the king basically has the same role and attributes as the other pieces, we need to know its power in comparison to them. A useful value to use for the king's power is four pawns, placing it between the rook and the minor pieces.

So as a general rule, activate queens before rooks, rooks before kings, kings before minor pieces, and minor pieces before pawns.



Example 75 (W)

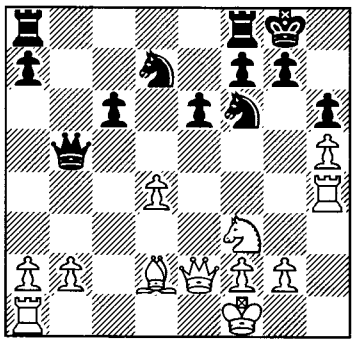
In this position, a natural order of activating the pieces would be rook first, then king, then knight and finally pawns.

White chose 1 Re1 followed by 2 Kg1.

King

In the endgame, the king is transformed from a delicate target which needs protection into a powerful fighting piece. It is therefore no surprise that players

quickly start moving the king from its corner shelter closer to the centre as soon as the position transforms into an endgame, or when this transition becomes imminent.



Example 76 (W)

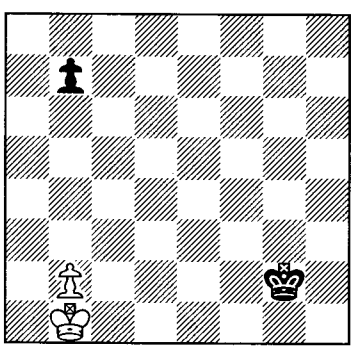
Z.Lanka-G.Kasparov, Riga 1977

White could have exchanged queens by 1 Qxb5 cxb5, and followed up with 2 Ke2 Rfc8 3 Kd3, activating his king.

Of course, the king is more vulnerable than the other pieces in that it always has to escape check, but it is a useful habit to start thinking of it in terms of a piece.

Because of its ability to cover all adjacent squares, the king is probably the most formidable piece to both protect and attack pawns. Of course, the queen possesses even more power, but she is usually not around in the endgame.

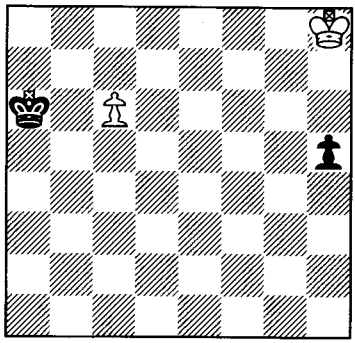
A very useful point to remember is that the shortest distance for the king between two squares is not necessarily the straight line. As we all know but easily forget, it takes the king exactly the same number of moves to go to the opposite corner as it takes to run down the file. Many pawn endgames are won because of this very fact.



Example 77 (W)

Moravec, 1940

After 1 Kc2 Kf3, White chooses 2 Kd3! instead of 2 Kc3 and wins after 2...Kf4 3 Kd4 Kf5 4 Kd5 Kf6 5 Kd6 Kf7 6 b4 Ke8 7 Kc7 b5 8 Kc6 Kd8 9 Kxb5 Kc7 10 Ka6.



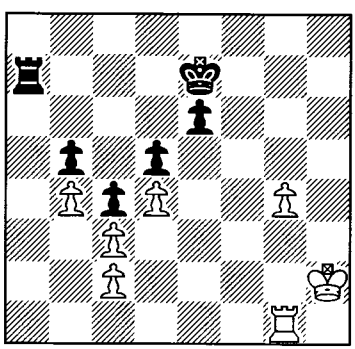
Example 78 (W)

Réti, 1921

White holds the draw by 1 Kg7! h4 (1...Kb6 2 Kf6 h4 3 Ke5 h3 4 Kd6 h2 5 c7 h1Q 6 c8Q is also a draw) 2 Kf6! Kb6 (if 2...h3 then 3 Ke7 h2 4 c7 h1Q 5 c8Q+, or 3...Kb6 4 Kd7 h2 5 c7 h1Q 6 c8Q) 3 Ke5!, creating the double threat of promoting his own pawn and catching the opponent's. The black pawn is lost after 3...Kxc6 4 Kf4, while 3...h3 4 Kd6 h2 5 c7 Kb7 6 Kd7 h1Q 7 c8Q+ is also a draw.

In pawn endgames, usually the king should be rushed to the centre and advanced as far as is feasibly possible *before* the pawns start moving.

In endgames with major pieces, the king naturally still suffers with some of its flaws from the middlegame. It can be effectively cut off from all action by a rook, so always try to bring your king to the active area. If your opponent has a passed pawn or a pawn majority, it is crucial you get your king in front of the pawns. If, on the other hand, you have a passed pawn in a rook endgame, start by cutting the enemy king off, as far as possible from the action.



Example 79 (W)

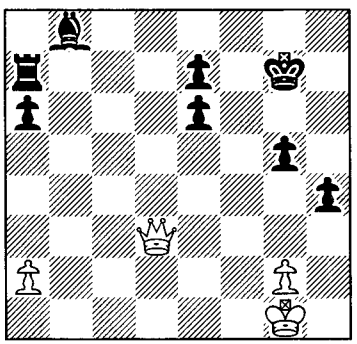
By 1 Rf1, White effectively cuts off the black king from the action. There is little Black can do to stop the promotion of the pawn, and even if there was, 1 Rf1 would still easily be the best candidate.

In queen endgames it is even worse. The stronger side needs to avoid the possibility of perpetual checks and therefore is often forced to hide the king even in the absence of mating threats.

Queen

The queen is the most powerful piece and its mobility increases even further in the endgame, where it is an unparalleled forker, able to create two or even more threats simultaneously all over the board.

This fact makes the queen most powerful when the enemy forces are scattered and uncoordinated. If one of the uncoordinated pieces is an unsheltered king, the queen's power often becomes unbearable.



Example 80 (W)

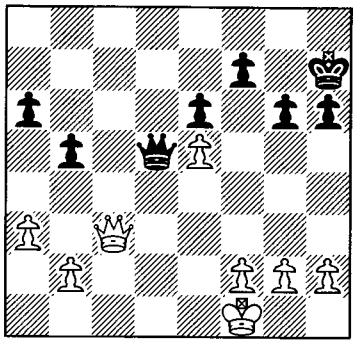
Black's forces are uncoordinated and his king lacks sufficient shelter. After 1 Qd4+ Kf7 (or 1...e5 2 Qb6) 2 Qf2+ Kg6 3 Qb6, Black is already lost.

Since the king makes such a good forking target, and because the weaker side can use it to bring about perpetual check, a safe shelter for the king is an extremely valuable asset in a queen endgame.

That said, in many cases the king will have to come out of its shelter to help his queen in the battle. The outcome is then usually dependent on whether or not the king can escape the imminent cannonade of checks.

As a defender you should try to patiently and precisely deliver checks until reaching a draw. Be aware that it is way too easy to give the wrong check and then find yourself with no way of continuing the harassment. Patience and endurance are paramount in queen endings.

The importance of bringing the queen to as active and centralized a square as possible cannot be overstressed. If the queen is made a powerhouse, dominating the centre over its counterpart, you immediately gain the upper hand.



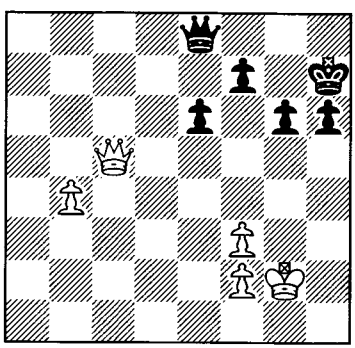
Example 81 (B)

F.Marshall-G.Maróczy, Ostend 1905

The black queen dominates the board from its central position, threatening pawns on both flanks.

After 1...Qd1+ 2 Qe1 Qd3+ 3 Kg1 Qc2 4 Qa1 a5, the white queen had lost all its power and Black went on to win.

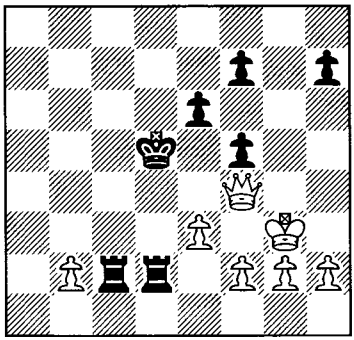
When it comes to passed pawns, the queen possesses a unique quality no other piece has. With only the pawn and two queens on the board, the queen can force the pawn to promotion. This has important implications. Suddenly a far advanced passed pawn becomes almost unstoppable, which in turn means that the number of pawns, or even the number of passed pawns on each side, is of little importance as long as you have or can create a far advanced passed pawn.



Example 82 (W)

After 1 b5, there is no way for Black to stop the promotion of the pawn. The white queen safely guides it all the way. For example, 1...e5 2 b6 e4 3 b7 Qb8 4 Qc8.

But the queen's power is not unambiguously increased in the endgame. Because when attacking a certain single square every piece is equally strong, the queen can easily find herself overwhelmed by two pieces cooperating in the same attack. This occurrence is not as usual in the middlegame, since there the number of pieces is much larger and other pieces can usually help the queen.



Example 83 (B)

F.Dus Chotimirsky-E.Znosko Borovsky, St Petersburg 1905

The white queen is unable to protect its pawns from the black rooks. In the game, the rooks eventually gobbled up all the white pawns except the e-pawn.

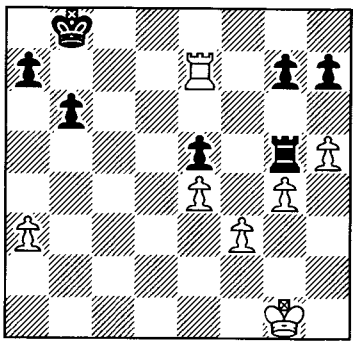
So is the mobility of the queen stronger than its drawback as a single piece when it comes to battling against less powerful pieces? The answer is that it depends on how well the less powerful pieces are coordinated and how well they protect each other and their pawns. With mutual protection, there is little the queen can do. But with scattered pawns and pieces, and an exposed king to work on, the queen can often destroy the enemy before its forces have coordinated.

As a rule, a queen is inferior to two rooks and often only holds its own against a rook and a minor piece, especially a bishop.

Rooks

Rook endgames are by far the most common type of endgames. This is because rooks tend to be developed after the other pieces, and often exert their power from the back rank and on half-open files. As a result, rooks are exchanged relatively late. The only common exception is when the two players fight for the control of an open file, when rook exchanges become almost inevitable.

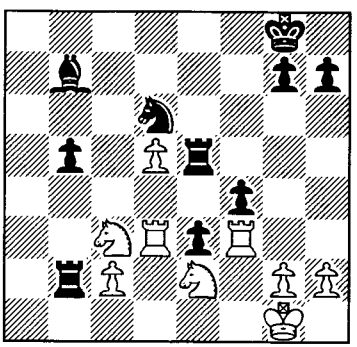
It is almost like the rook was invented for the endgame, because it is a formidable pawn eliminator. A pawn on the same file as a rook cannot escape its power by moving forward, and when attacked from the side on a rank, the pawns are ridiculously vulnerable to the rook.



Example 84 (W)

The white rook shows its power over the black pawns, threatening all pawns along the seventh rank as well as the e-pawn.

But beware of passive rooks. You only have to take a single glance at a rook bound to passively defending a vulnerable pawn, especially if the pawn has barely advanced, to realize how huge a difference activity means for a rook. Always try to place your rook behind a passed pawn, regardless if it is your pawn or your opponent's.

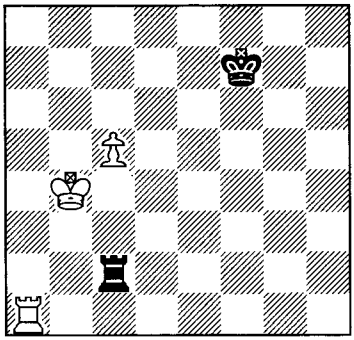


Example 85 (W)

The two black rooks are both more active than their counterparts. They effectively attack the blocked white pawns and at the same time potentially threaten to escort the e-pawn to promotion.

So in rook endgames, above all, activate your rook, even if it costs you material. Make your rook dominate the central files and lift it to also show its power along the ranks, attacking pawns from the side. A rook controlling the seventh rank is often decisive, because it cuts off the enemy king on the back rank and at the same time attacks all pawns still left on their original squares.

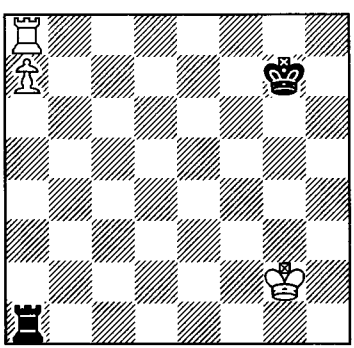
Using your rook, try to cut off the enemy king from the action by controlling the right files. The further away from the action the king is cut off, the bigger the advantage. This becomes absolutely decisive when you are trying to push a passed pawn.



Example 86 (W)
White should play 1 Re1!, to cut off the black king, and only then advance with the king and pawn to victory.
Instead, 1 Kb5 Ke7 2 c6? (it's still not too late for 2 Rd1!) 2...Kd8 would allow Black to draw.

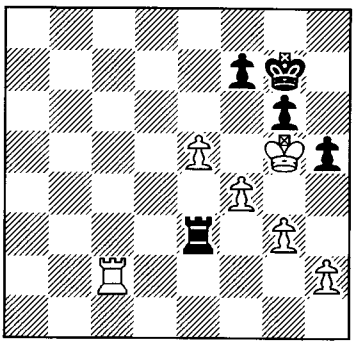
Most rook endgames are drawn if the defending king can get in front of the passed pawn, simply because there is no way of pushing the pawn through without leaving either the pawn unprotected or exposing the king to endless checks from the rook. This fact makes rook endgames one of the most drawish of all endgames, surpassed only by endgames with bishops of opposite colours.

But you can actually use this fact to your advantage, pushing on and still trying to win a seemingly dead drawn position. Many players think that this kind of drawish endgame will draw itself, and start playing less accurately – and definitely less enthusiastically. They might not even know (or remember) the correct way of achieving the draw they know is there. Many theoretically drawn positions have been won by the player with the strongest will and the longest patience. Play chess games to the end, and make the opponent prove it is a draw.



Example 87 (W)
Even here, with a far advanced pawn, White cannot win if Black is careful not to fall for 1 Kf3 Kf7? 2 Rh8! Rxa7 3 Rh7+.

Instead let the rook do all the work by 1...Ra4, or any move along the a-file. It does not matter if the white king gets down to support the pawn, because it will be checked until it has to return towards the black rook – a typical drawing pattern in rook endgames, e.g. 1 Kf3 Ra2 2 Ke4 Ra1 3 Kd5 Ra2 4 Kc6 Ra1 5 Kb6 Rb1+ 6 Kc5 Rc1+ 7 Kb4 Ra1, etc.



Example 88 (B)

J.Piket-G.Kasparov, Internet 2000

Even Garry Kasparov could have done with more knowledge about handling rook endgames. He played 1...Re1, and lost after 2 Rc7 Re2 3 Re7 Ra2 4 f5 gxf5 5 e6 h4 6 Rxf7+ Kg8 7 Kf6.

Black needs to prevent the white manoeuvre Re7, f5 and e6, which he can do along the 5th and 6th rank: 1...Ra3 2 Rc7 Ra6 3 Re7 Ra5 4 f5 gxf5 5. e6 f4+ 6 Kxf4 Kf6 7 Rxf7+ Kxe6 8 Rf8 Ra2 with a theoretical draw.

Rook endgames with more than one rook on each side are far less technical and usually become more tactical. This means that if you think you have a clearly winning advantage in the rook endgame, you should consider exchanging one pair of rooks. This way, you limit the opponent's chances of counterplay.

On the other hand, be very aware of the possibility that the exchange enters you into a drawish endgame. It all depends on the details of the position. Always look out for possibilities for you or your opponent to exchange rooks, and always be sure of the outcome of the resulting pawn endgame before you accept an exchange.

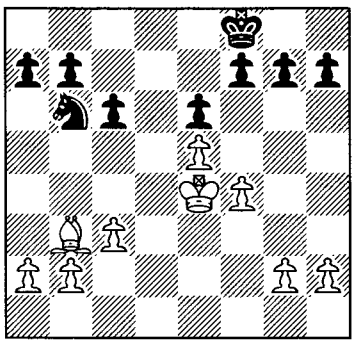
Minor Pieces

Few endgames are as special as those with a bishop opposing a knight. The two pieces move so differently and have such different qualities that it is hard to believe their power in general terms is about the same.

Endgames (and middlegames for that matter) with different minor pieces are where the stronger player can really make his extra strength count. In a middlegame, the stronger player can shape the position to suit the piece he has. Before entering the endgame he knows whether it will be favourable for the bishop or for the knight. And in the endgame he knows what has to be done to fully utilize the power of his piece.

The most obvious difference between the bishop and the knight is the long range

of the bishop. Generally this makes the bishop stronger in situations where there are pawns on both sides, simply because the bishop can control both wings at the same time. This advantage becomes even more accentuated when the position is asymmetrical, especially involving passed pawns.



Example 89 (B)

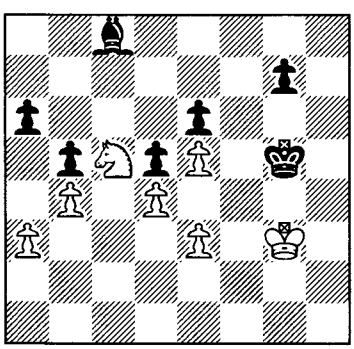
The white bishop is in its element, with stable pawn chains and pawns on both wings.

It can support pawn rollers like g4, f5 and b4, a4, and it can attack pawns on both wings. Black can do little but defend.

The next fact that one usually realizes is that, whereas the bishop cannot attack any enemy pawns placed on squares of the opposite colour, the knight does not have that problem. This means unsupported pawns can be very hard to defend against a knight.

Now combine this last fact with the knight's formidable quality as a forker, and you will find that the knight thrives in positions with crooked and vulnerable pawns, using tactics in the form of forks and threatened forks.

Because of its short range, the knight is in need of strongholds, strategic squares where it is defended by its own pawns and where it cannot be driven away by enemy pawns. Ideally, the stronghold is of the opposite colour to the bishop and with vulnerable enemy pawns in reach.



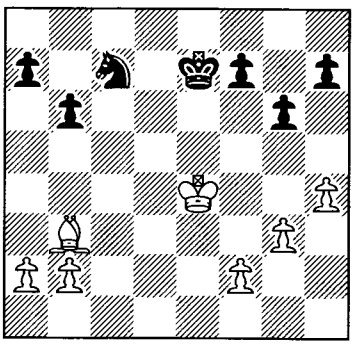
Example 90 (W)

A.Grischuk-T.Radjabov, Dubai 2002

The white knight not only has strongholds on c5 and d6, but two weak pawns are also in its reach.

White continued 1 e4 dxe4 2 Nxe4+ Kh5 (if 2...Kf5 3 Nd6+) 3 Kf4 Kh4 4 Ng5 Bd7 5 d5 exd5 6 e6 and eventually won.

The bishop, on the other hand, wants its pawns in compact, controllable but flexible formations, where the pawn chain can be rolled forward and where pawn breaks can be made in planned fashion. They like stability, whereas knights prefer chaos.



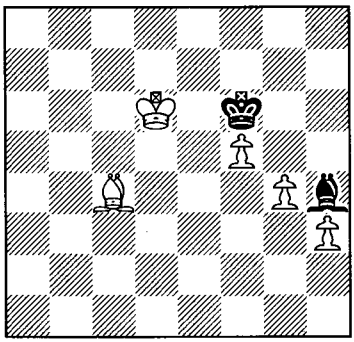
Example 91

P.Benko-B.Parma, Belgrade 1964
White rolled the pawn chain forward by 1 f4 h6 2 Bc4 Kf6 3 g4 Ke7 4 Ke5 f6+ 5 Ke4 Kf8 6 h5, and won 20 moves later by virtue of zugzwang: 6...g5 7 fxg5 fxg5 8 Kf5 Kg7 9 Ke5 Ne8 10 Be6 Nf6 11 b4 Ne8 12 b5 Nf6 13 a4 Ne8 14 Bf5 Nf6 15 Ke6 Ne8 16 Be4 Nf6 17 Bf3 Ng8 18 Kd6 Kf6 19 Kc6 Ke7 20 Kb7 Kd6 21 Kxa7 Kc5 22 Ka6 Nf6 23 Bc6 Nxg4 24 a5 bxa5 25 b6 Ne5 26 Be8 1–0.

Because of their similar moving patterns, bishops and rooks work well together. Many players believe a queen works better with a knight than with a bishop. This might have some truth in it, but is it because the knight brings to the queen the only moving pattern she doesn't have, or is it because they both prefer chaos to order?

Finally, the bishop pair is a formidable power in the endgame and efficiently controls all the squares. If you have the bishop pair, you should try to keep it. If your opponent has the bishop pair, you should normally try to exchange one of the bishops for any of your minor pieces as soon as possible.

I have already said that endgames with bishops of opposite colours are the most drawish. It is simply too easy to create fortresses, where the bishops control one colour each and make it impossible to advance any pawns without losing them.



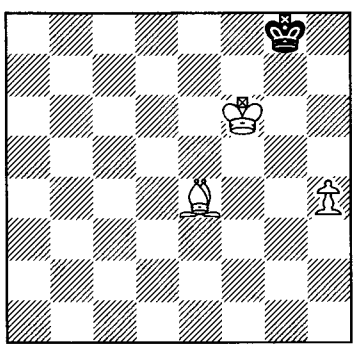
Example 92 (W)

White's three extra pawns do not help him. The opposite-coloured bishops totally dominate squares of their own colour, so White cannot advance his pawns.

So if you want to win, try to avoid these endgames, especially in the absence of other pieces. Still, some of these endgames can be won, and your opponent can play badly, so again, make him prove it is a draw.

A special fact about endgames with only one minor piece each is that a minor piece is not enough to deliver checkmate. This means extra options for both defenders and attackers.

As the defender, always look for ways to sacrifice your minor piece for two or even one pawn, if this leaves the opponent without enough material to win. A special situation of this is where the opponent is left not only with a bishop against your lone king, but even an extra pawn on the edge, but this pawn's promotion square is of the opposite colour to the bishop. If your king can make it into the corner, the position cannot be won.

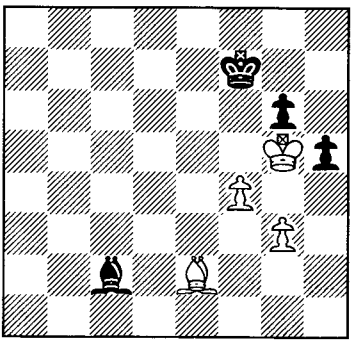


Example 93 (W)

White cannot win, because there is no way to force the black king away from the dark square in the corner.

As the attacker, always look for ways to sacrifice your minor piece to create unstoppable pawns, either too far away for the opponent's king to reach, or guided through with your own king's protection. It is not uncommon for an attacker, es-

pecially in an otherwise drawn position, to sacrifice his minor piece for pawns, leaving the opponent with only his minor piece left. That way the opponent can never win, and you are left with all the chances.



Example 94 (W)

Even though this is a drawn endgame, White risks nothing by sacrificing his bishop for two pawns with 1 Bxh5 gxh5 2 Kxh5. White is the only player with any winning chances.

Turn

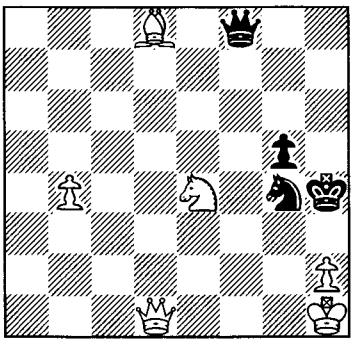
Time is important in all phases of a game, but in the endgame the small number of pieces and the resulting small number of possible moves create some peculiarities. Suddenly, just the fact of being the next to move can either lose you the game or save a draw. The two most prominent examples are stalemate and zugzwang.

Stalemate

Since the number of possible moves decrease drastically in the endgame, a player can find himself in a position where it is his turn to move, but there are no legal moves to make. This is of course called stalemate and the game is drawn.

Very few players fall into the trap of walking into a stalemate position. Stalemate is usually either a product of a theoretically drawn position, or the end of a combination, where the attacker is forced to put his opponent or even himself in a stalemate position.

Stalemate combinations can sometimes be hard to see because of their special properties. For example, even though putting a piece en prise is part of many ordinary combinations, it is usually because the capture of the piece would create drawbacks the attacker can use in order to end up on top. But in a stalemate combination, the capture in itself can quite frequently be the end of the combination.



Example 95 (B)

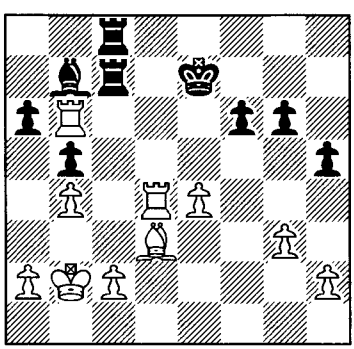
By 1...Nf2+ 2 Nxf2 Qf3+ 3 Kg1 (3 Qxf3 is stalemate) 3...Qg2+ 4 Kxg2 stalemate, Black can save the game.

This is not how we are used to thinking and it is important we have stalemate combinations in mind, both when attacking and when defending. As usual, the key is to always examine all forcing moves and follow them to the end.

Zugzwang

Sometimes whatever move you make will worsen your position, but since moving is compulsory, you have to contribute to your own downfall. This is zugzwang. It rarely happens in the other phases of the game, because the larger number of moves usually means there is at least one that doesn't deteriorate your position.

You most probably already know a lot of theoretical endgames where zugzwang is the deciding factor, but be aware of zugzwang possibilities at all times during endgame play. We are all so used to finding good active moves in the middlegame and should of course make use of this ability in the endgame too, but if that is all we look for, we will miss the often decisive moves putting the opponent in zugzwang.



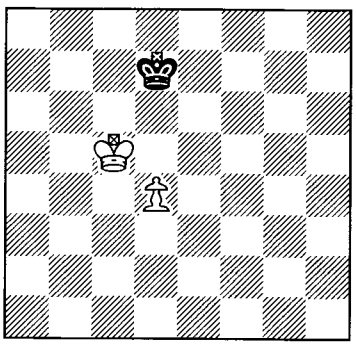
Example 96 (W)

After 1 h4 it is evident that Black would rather not move, because every reply makes his position worse.

After 1...Kf7 there follows 2 Rdd6 (which does not work with the king on e7), and after 1...Rf8 there follows 2 c4 bxc4 3 Bxc4 with continuing pressure.

White missed this and played 1 Rdd6, which was answered with 1...Bc6.

The most common zugzwang theme, and probably the most important one, occurs in positions with kings and only one pawn left on the board, where putting the enemy king in zugzwang is the only way to escort the pawn all the way to promotion. This is called the rule of opposition.



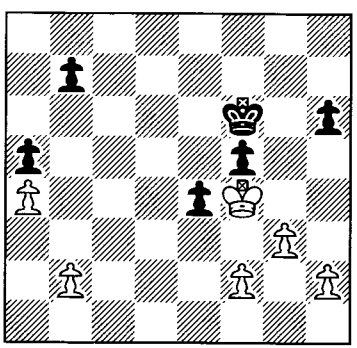
Example 97 (W)

White takes the opposition by 1 Kd5!. Black, who would rather not make any move, is in zugzwang.

After 1...Ke7 2 Kc6 Kd8 3 Kd6 Kc8 4 Ke7 Kc7 5 d5 Kc8 6 d6, the pawn promotes. White wins in similar fashion after 1...Kd8 2 Kd6 Kc8 3 Ke7 or 1...Kc7 2 Ke6.

Pawn endgames are quite naturally abundant in zugzwang situations, because once the kings reach as far as they can and end up blocking each other's path, any king move yields ground to the opponent and often loses. This is where extra pawn moves can make all the difference, passing the turn back and forth until one player runs out of pawn moves and has to give way with the king. Remember this – it is paramount in pawn endgames.

As a consequence, it is often a good idea to not use the double step of a pawn, but instead "gain" an extra pawn move by moving it one step at a time.



Example 98 (W)

White is winning by virtue of a spare pawn move. 1 h4? would only be a draw, but by moving the pawn to h4 in two separate steps, the black king is forced to yield.

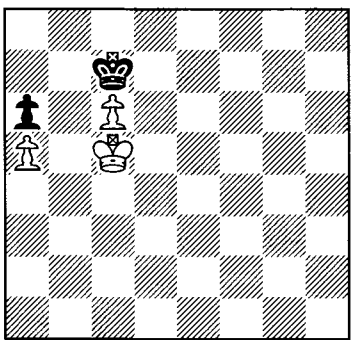
1 h3! h5 2 h4 b6 3 b3 Kg6 4 Ke5 and the first pawn falls.

Another pawn endgame concept called "related squares" also makes use of zugzwang. A related square is the square the defending king has to occupy when the attacking king is on another particular square, in order for the defender to be

able to block the attacking king's penetration into the position.

For example, if the defending king has to be on e7 when the attacking king is on d5, then e7 and d5 are related squares.

If the attacker finds a way to force the opponent's king to occupy a non-related square, for example by using a spare square which has no related square, the game is usually won by virtue of zugzwang.



Example 99 (W)

To hold a draw, the black king needs to move to c7 when the white king moves to c5, and to d8 when White moves to d6. This means c7 and c5 are related squares, as are d8 and d6.

From d5 White can reach both c5 and d6 and the only similar square for Black is c8, so d5 and c8 are also related.

White also has two squares from which to reach both c5 and d5, namely c4 and d4. Black has d8 and b8 from which to reach c8 and c7, but crucially they are not adjacent. When White passes through d4 and c4, Black consequently runs out of related squares and loses.

For example, 1 Kd5 Kc8 2 Kd4 Kd8 (or 2...Kb8 3 Kc4 Kc8 4 Kd5) 3 Kc4 Kc8 4 Kd5 Kc7 (or 4...Kd8 5 Kd6 Kc8 6 c7 Kb7 7 Kd7) 5 Kc5 Kc8 6 Kb6 Kb8 7 Kxa6 Kc7 8 Kb5, etc.

It stands to reason that after pure pawn endgames, minor piece endgames are the next most common for zugzwang possibilities. This is because the minor pieces have more limited mobility than rooks and queens.

One might think that the knight is much worse than the bishop in this respect, but the fact that the bishop can only ever move to squares on the same colour actually makes it a quite common victim, especially in same-coloured bishop endgames when its diagonals are blocked by pawns. As expected, knights usually find themselves in zugzwang in the corners and at the edge of the board.

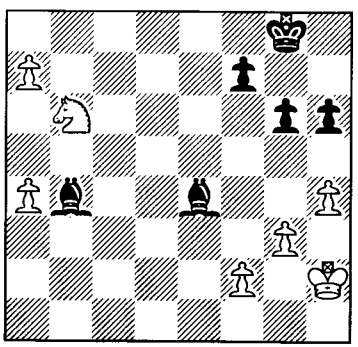
Domination

A concept closely related to zugzwang is domination. This is where one or more pieces completely dominate an enemy piece by controlling its mobility. Usually this is achieved by controlling the squares the enemy piece can legally move to, practically immobilizing the piece, or at least forcing it to move into a bad position.

Domination is also rarely seen in the other phases of the game, although occasionally it occurs in attacking middlegame positions, where the defending pieces are severely limited in their movement and tied down to defence.

Complete domination ultimately leads to zugzwang, since the enemy pieces have nowhere to move, but even positions where only one piece is dominated while the rest can move freely can be very hard to save.

Domination basically follows the same laws as zugzwang, so it most often occurs between pieces with limited mobility. The most common example is a bishop dominating a knight on the edge by controlling the four squares it can move to, or sometimes a knight doing the exact same thing to a bishop.



Example 100 (W)

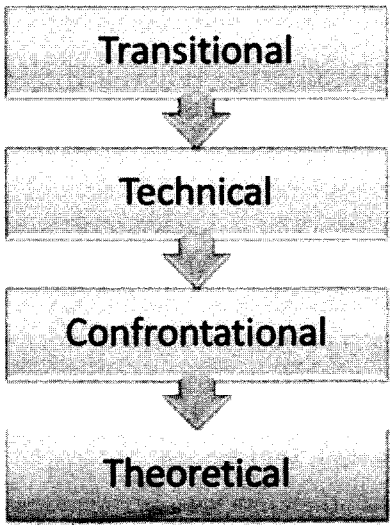
I.Cheparinov-F.Caruana, Novi Sad 2009

White was playing for a win, but after 1 a8Q Bxa8 2 Nxa8 Ba5! the knight is dominated by the bishop and cannot move anywhere. White eventually lost.

Chess is not only about making your own pieces stronger, but also about making your opponent's pieces less powerful. If this is constantly in your thoughts, domination will come natural to you.

Phases

Moving into and playing through an endgame usually involves four different phases:



Each of these phases has to be treated differently from the others.

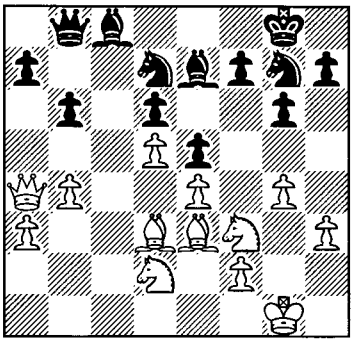
Transitional

Entering into an endgame should be a deliberate action. You enter it because you think it will offer you a greater chance of reaching your objective – be it winning or drawing – than staying in the middlegame.

Far too many players enter into the endgame because they for some reason think the overall drawing chances are greater in an endgame than in a middlegame, or mistakenly avoid entering into a won endgame because they don't want to lose their middlegame initiative. You should be comfortable enough to play both middlegame and endgame, and choose the one you think offers you the best chances.

To be able to assess this, you need to evaluate your chances in the endgame and compare them to your chances in a continued middlegame. Ask yourself if your advantages can more easily be exploited in an endgame, or if your disadvantages can more easily be defended.

First of all, you need to look at the resulting position through endgame eyes, knowing that static considerations increase drastically in importance in the endgame. Instead of looking at the dynamics in your attack, you need to look at pawn weaknesses, king positions and material.



Example 101 (W)

Y.Seirawan-U.Andersson, Skellefteå 1989

After 1 Ba6 Bxa6 2 Qxd7 Qb7, White chose to enter into the endgame by 3 Qxb7 Bxb7, evaluating his endgame chances to be better.

If you have a material advantage enough to give you good winning chances in the endgame, entering into the endgame is the most straightforward way to make use of the extra material. Remember, with fewer pieces on the board, the percentage of extra material increases and therefore usually also the chances of using it decisively.

On the other hand, beware of entering into an endgame just because you have an extra pawn. In pawn endgames it is almost always enough, and in minor piece endgames it often is, but in rook and queen endgames it is far from decisive. Do not move from a promising attack to an uncertain and possibly drawn endgame.

Since the king suddenly improves as an attacking piece, king placement is also an important consideration. Can you swiftly bring your king to a good position, or will your opponent beat you to it?

As we already know, pawn weaknesses become very important. Weaknesses you could safely forget about in the middlegame can suddenly become decisive. Closely evaluate them before entering into the endgame.

If at all possible, also ask yourself what endgame you should opt for. What endgame would best prove your advantage and is it possible to reach this endgame? Always be aware of what piece exchanges would benefit which player – try to make the exchanges that are good for you and avoid the ones that are bad.

Technical

The technical phase is the longest and most time consuming phase. Despite this fact, this is the phase most players know least about.

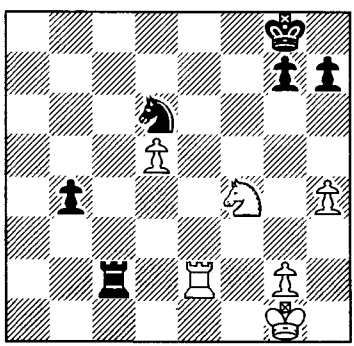
The technical phase is all about preparing for the coming confrontation. It is the phase where strategy and static considerations come into play. Each player is try-

ing to either create and nurture small static advantages, or neutralize the opponent's.

The first thing you need to do is to evaluate the position and identify the imbalances, especially the differences in material and the permanent exploitable pawn weaknesses. When doing this, be aware of the difference between actual and potential pawn weaknesses (we will talk more about imbalances later on).

Then you need to imagine the position you would like to achieve to maximize your advantage against your opponent's weaknesses. When you do this, you should not be focusing too much on whether it is possible or which moves will take you there. Just imagine the position you would like to reach.

After you decide on which position you want to achieve, the last step is to figure out how to reach this position and calculate the needed variations. Don't think of isolated moves. Every move should be part of the plan to reach the desired position. (Both planning and calculation are described later on when we talk about skills.)



Example 102 (B)

Black has an outside passed pawn and imagines a position with no rooks and with the white knight tied to the defence of the promotion square b1. In this situation the black king could invade the kingside, since the white king needs to protect d5 and sooner or later needs to capture the black pawn, lest it is helped by its king.

After 1...Rxe2 2 Nxe2 b3 3 Nc3 b2 4 Nb1 Kf7 5 Kf2 Kg6 6 Ke3 (or 6 Kf3 Kf5 7 g3 Ke5) Kh5 7 g3 Kg4 8 Kd4 Kxg3 9 Kc3 (9 Ke5 Nb5) Kxh4 10 Kxb2 h5, Black wins.

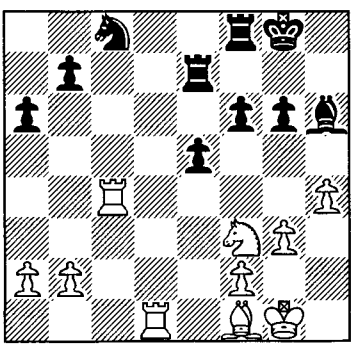
The positional nature of the technical phase makes time less important. The advice is rather not to hurry. Show great patience, gradually making your position stronger and stronger, while at the same time preventing the opponent's counterplay.

In technical endgames it is not uncommon for the defending player to have very

few, if any, advantages of his own to build upon. As we will reflect upon again when talking about attack, in this kind of position, there is no hurry to get confrontational. Instead, first smother your opponent's initiatives, and then build up your position to the point where it cannot become any stronger. Then and only then are you ready to move into the confrontational phase.

You will often find that exploiting one weakness is not enough, simply because your opponent has the means to defend it. But having resources tied up in defence usually makes the rest of the position fragile. If you open up a second front, exploiting other existing weaknesses, or creating new ones, you will find the defences collapse.

To open up this second front, or even to get your advantage to show in the first place, you should open up lines. Look for pawn breaks and other means of doing so. Open lines most often benefit the player with the advantage and are effective means to start exploiting weaknesses.



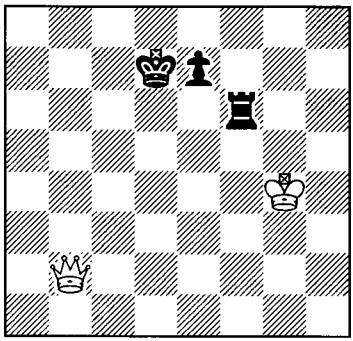
Example 103 (W)

M.Adams-S.Tiviakov, Groningen 1997

White already controls the c- and d-files. To break through, White created further weaknesses on the light squares around the black king by 1 h5! gxh5 (if 1...g5 2 Bh3) 2 Nh4. He won after 2...Rh7 3 Bh3 Ne7 4 Be6+ Kh8 5 Rc7 f5 6 Rdd7 Bg5 7 Ng6+.

As a defender, you should look for ways to neutralize your opponent's advantages as well as ways to exploit his weaknesses to get counterplay. When imagining end positions, you will have to figure out your opponent's plans and possibilities, and imagine what your ideal defensive position looks like. This defensive position usually just concentrates on defending the weaknesses, if possible, while sustaining some form of activity.

Sometimes it is even possible to build an impenetrable fortress. The concept of fortresses is not uncommon in endgames. In fact, many theoretical endgames depend heavily on it, especially endgames with opposite-coloured bishops. A fortress is usually only possible with very few pieces on the board, but can sometimes be the last and only defence against an overwhelming material disadvantage.



Example 104 (W)

A common fortress that White cannot break down. The white queen cannot force the black king away from the pawn and the black rook is safely cutting the white king off from the action.

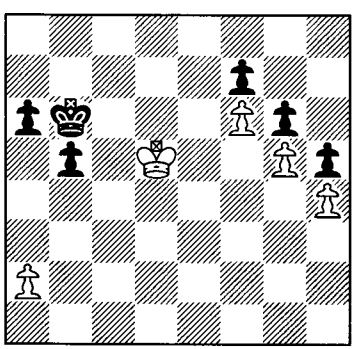
If you realize your advantage is not decisive, don't despair. Advantages don't have to be decisive for you to build upon them. In fact, you don't even have to have the advantage to build on the imbalances in the position. Just build up your position and play the game to its conclusion, and you will be surprised how many games you will win in the technical endgame.

Confrontational

The confrontational phase starts when tactics and time suddenly becomes paramount. Don't worry about the definition; you will most certainly realize when this happens.

The confrontation may begin in the form of a pawn break, or when a pawn is aggressively pushed forward, or when one player goes down the path of no return, starting a mutual pawn elimination and/or pawn race.

Suddenly, every move becomes crucial and the only way to succeed is to calculate – and calculate very thoroughly. Strategy and manoeuvring have lost all value.



Example 105 (W)

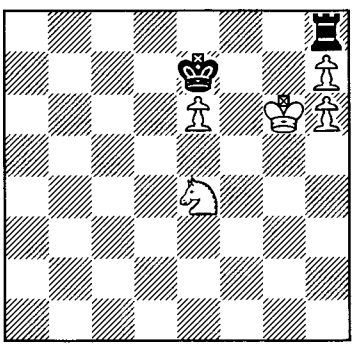
When White chooses 1 Kd6, he starts a promotion race, continuing 1...a5 2 Ke7 b4 3 Kxf7 a4 4 Kg7 b3 5 axb3 a3 (or 5...axb3 6 f7 b2 7 f8Q b1Q 8 Qb8+, winning) 6 f7 a2 7 f8Q a1Q+ 8 Qf6+ Qxf6+ 9 Kxf6 and White wins.

Because of the tactical nature of this phase, general knowledge will not help you. Don't fool yourself into thinking you don't have to calculate variations to the end. Having changed their mindset when moving from the middlegame to the technical phase, many players have a hard time changing it back when necessary.

Theoretical

The final phase, not always reached, is the theoretical phase, which starts when a theoretically known endgame appears. Of course, if the player does not recognize it, or doesn't remember the solution, he would in effect still be in one of the earlier phases.

It is crucial to know the most common theoretical endgames, not only to recognize what to do when they actually arise, but maybe more importantly to use this knowledge in your plans and calculations in the earlier endgame phases. For example, despite having a material advantage, a certain plan or exchange might not be suitable because it would lead to a theoretically drawn position.

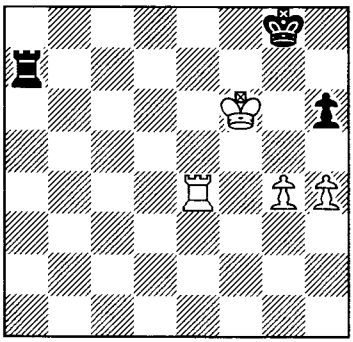


Example 106 (W)

If White goes for the black rook by 1 Kg7 Kxe6 2 Kxh8? (2 Ng5 Ke7 3 Nh3, followed by Nf4 and Ng6 still wins) 2...Kf7!, a known drawn endgame is reached.

Instead White can win easily by 1 Ng5 followed by 2 Nf7.

But be warned. Some players mistakenly think of endgames as consisting of only the theoretical endgames. They constantly lose games in the technical phase and hardly ever reach the theoretical endgames. And even when reaching a theoretical endgame, they think it is enough to "know" that it is a theoretical draw, without knowing how to prove it over the board. Of course, if you don't know how to draw the position, you will risk losing it.



Example 107 (B)

V.Kramnik-V.Topalov, Las Vegas 1999

In this theoretically drawn position, no less than Topalov erred with 1...Rg7?, enabling White to force an exchange of rooks by 2 Re8+ Kh7 3 Re7, winning.

Even though this was a clear oversight, Topalov would not have played ...Rg7 if he knew the way to the draw by heart.

You should make a list of all theoretical endgames you have to or want to know by heart, taking the time to understand them and the mechanisms involved. You will also have to rehearse them from time to time.

Here are some endgames every chess player needs to know:

- Checkmating with a queen
- Checkmating with a rook
- Winning and drawing when only one pawn is left
- Winning a pawn endgame when a pawn up
- Winning and drawing with a queen against a pawn

There are many, many others you need to know to become a strong player:

- Advanced concepts in pawn endgames
- Rook against pawn
- Rook and pawn against rook
- Other simple rook endgames
- Bishops of opposite colours
- Queen endgames
- Bishop endgames
- Knight endgames

I would love to go through all the most important ones, but this is not a book on endgame play. Please refer to recommended reading later on.

Imbalances

If we put aside the possibility of winning on time, there is really only one way to win in chess: delivering checkmate. If your opponent resigns, it is in all reasonable cases because he thinks you will ultimately checkmate him.

So why do we care about other factors like material, pawn formations, open files and so on? Because those factors affect our ability to deliver checkmate.

There are basically two ways of delivering checkmate. Either you attack the opponent's king directly, usually in the middlegame, or you continue on into the endgame and by pushing a pawn to queen, create the power needed to checkmate the king on an emptier board. In both cases you overpower your opponent, either locally around the king or globally, and that is why you can deliver checkmate.

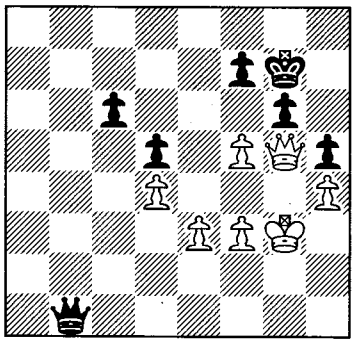
This is why beginners quickly learn the approximate value of the pieces and this is why the player grabbing most material will eventually win in rookie games. The fact that having power makes it even easier to create more power (i.e. if you already have more pieces than your opponent it is easier to win even more pieces) only helps to prove the point.

Nature

So chess is basically a game of imbalances, where the ultimate imbalance is checkmate. Other imbalances, such as material or positional ones, are significant because they can be nurtured, grown and eventually converted to more important imbalances and finally to checkmate.

But thinking too much about imbalances might waste your precious time, and if treated improperly can even make you choose an inferior move. This is because we tend to forget that attack, initiative and substantial material gain most often make the smaller imbalances we often concentrate on, like pawn formations or different minor pieces, insignificant.

Another way of saying this, and what to remember when thinking about imbalances, is that tactics will always trump strategy. It does not matter if you have a fantastic plan based on present imbalances if you displace your pieces or forget a mating threat.



Example 108 (W)

White intends to bring his king into play via the dark squares by 1 Kf4?, not checking even the most obvious forced moves.

Black simply answered 1...Qb8 mate.

On the other hand, when both players avoid the tactical pitfalls, the player using the imbalances to his advantage will wrest the initiative and slowly build up a winning position.

Imbalances come in two different flavours:

- Static
- Dynamic

A static imbalance is an imbalance that is either eternal or at least hard to change, like a destroyed king shelter, a backward pawn or a material imbalance. Static imbalances are either connected to material or pawn formations.

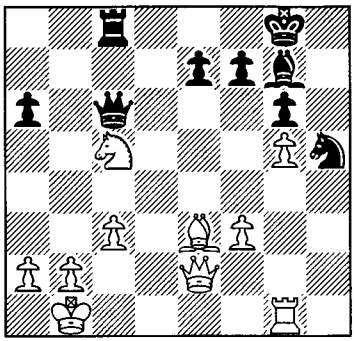
A dynamic imbalance will change, or at least can be changed, during the game. A dynamic imbalance is all about the pieces and their power. For example, an open file is not really an imbalance, since both players have the same open file, but control over the open file is a dynamic imbalance that can be challenged. Likewise, a poorly defended king with an intact pawn shelter is most probably also a dynamic imbalance, at least if pieces are able to sooner or later join in his defence.

In other words, there are dynamic imbalances if one player can say "if only I had time to make this or that move". Needless to say, both a lead in development and having the initiative are dynamic imbalances.

Imbalances can be created and converted into other imbalances, like when you give up a bishop pair to inflict doubled isolated pawns on your opponent, or when you give up material to regain some initiative.

Since imbalances are so important, and since static imbalances are hard to get rid of, the logical conclusion is that if you find yourself in a position where the opponent possesses the important static imbalances, you have to either find a way to

change this or start playing for dynamic imbalances.



Example 109 (B)

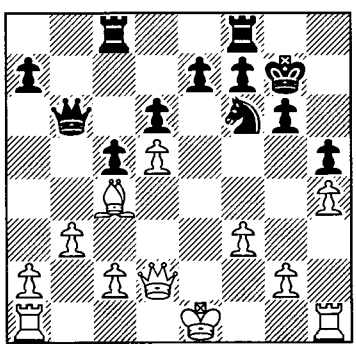
White has a sound extra pawn, a passed one, and no real weaknesses. Therefore Black has to play for dynamic compensation.

He tried 1...Qd5, hoping for 2 Nxa6 Qf5+ 3 Qc2 (if 3 Ka1 Rxc3 or 3 Kc1 Bxc3 4 bxc3 Rxc3+ 5 Kb2 Qe5 6 Kb1 Rxe3) Qxf3 with some counterplay.

But White played the stronger 2 Rd1 Qf5+ 3 Ne4 Ng3 4 Qg2 Nxe4 5 fxe4 and Black had to continue his quest for dynamic play.

It is important to realize when imbalances are about to be created or changed. When you or your opponent threatens to capture or exchange a piece or to push a pawn or make a pawn break, you should take some extra time to evaluate how the imbalances are about to change.

You will usually only have a few critical moments like this in your game, and many players realize too late what has happened, so late they have to spend time on saving the position instead of avoiding it.



Example 110

V.Anand-G.Kasparov, New York 1995

White can start pressuring the black e-pawn along the e-file, or even build up an attack by Qg5 and g2-g4. Black needs to change the imbalances.

By 1...e5, he secured the e-pawn and grabbed space, making an attack harder to achieve. White chose to open up in front of his uncastled king by 2 dxe6 d5 3 Be2 (if 3 Bxd5 Rfd8) 3...c4 and lost quickly after 4 c3 Rce8 5 bxc4 Rxe6 6 Kf1 Rfe8 7 Bd3 dxc4 8 Bxc4 Ne4.

Since your time is precious and since it is vital you spend time on tactics, selection and verification (in other words, calculating variations), most handling of imbalances is, and should ideally be, subconscious. We know we should occupy open files and avoid doubled pawns, we know what the king shelter should look like, and we know when we are behind in development. We also know how to treat these imbalances.

But to even begin handling imbalances in that way, you have to build up your knowledge about them to a level where you immediately recognize them, immediately know how to handle them, and of course know how to avoid them. You should develop a sense of when they are about to change and that is when you should spend time on them.

Imbalances can be divided into five natural categories:

- King
- Pieces
- Pawns
- Board
- Time

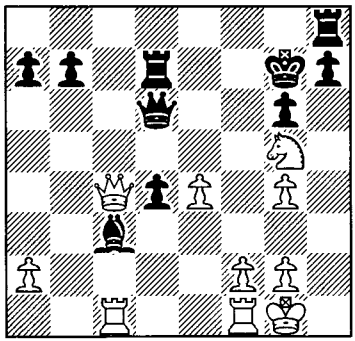
The Time category is obviously all about dynamic imbalances and the Pawn category is about static imbalances, but the other categories can be both static and dynamic, depending on the nature of the imbalance.

King

Imbalances regarding the king are usually the most crucial and are often the direct reason for decisive results. This imbalance is most often worth exchanging another imbalance for.

Irreparable Pawn Shelter

Having an irreparable pawn shelter around the king is the most dangerous static imbalance you can have in the middlegame, especially if the queens are still on the board. Also, since it is static, it won't go away, unless you can transfer the king to the opposite wing or manage to enter into the endgame.



Example 111 (B)

The diagonals towards the black king are wide open. Black has sufficient control over the situation, but he will always have to look out for his king.

To take advantage of this imbalance, you should avoid exchanging the queens, and you should take the time to build up the pressure until you see you can release it decisively. As with all imbalances, you should not be in a hurry to convert it as long as your moves increase your pressure faster than the opponent's decrease it.

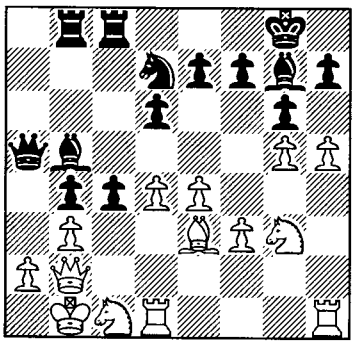
Sometimes you even find yourself in a position where the opponent can only sit and wait, going back and forth with his pieces. In that case you should build up your pressure to the absolute maximum before releasing it.

Opposite-Side Castling

When you and your opponent castle on opposite sides, you can regard it as a static imbalance, even if it is possible to transfer your king to the other side.

But contrary to other static imbalances, it is imperative that you quickly try to use this imbalance in your favour, since your opponent will most probably start an attack on your king, using a pawn storm if piece pressure is not enough. The player who gets to the opponent's king first usually wins.

To take advantage of this imbalance, you usually have to launch a pawn storm. The pawns are used to break up the king's shelter and convert this imbalance to the previous one. Since time is so crucial, and since the final objective is checkmate, material considerations are usually less important, especially when it comes to the pawns thrown at the opponent's king.



Example 112 (W)

Both sides have launched a fierce pawn storm. White is planning to open up the h-file and bring in the queen to break through.

But after 1 hxg6 hxg6 2 Qh2 cxb3 3 Qh7+ Kf8, it is evident that White needs more than that. Instead, Black's attack breaks through along the a- and c-files.

Poor Piece Shelter

Poor piece shelter is a dynamic imbalance, unless the opponent's pieces are forever cut off from the king, which is rare. This means that time to exploit this can be short. Nevertheless, you cannot start an attack with too few pieces and it is often worth the extra time to bring in the reserves if they are close by.

To get through the pawn shelter, it is often necessary to sacrifice a piece, which means you cannot really launch any reasonable attack unless it involves at least three of your pieces: one to be sacrificed, one to deliver checkmate, and one to protect the checkmating piece. More on attacking the king later.

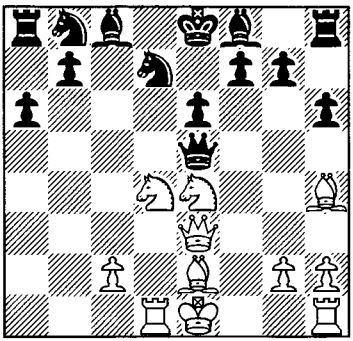
Pieces

Imbalances regarding pieces are about difference in material. Even if pieces are the essence of a lead in development and usually of initiative, those imbalances are described as part of Time.

Material

The value of material is directly proportional to its power, present or future. But material as such is a static imbalance, and the player with more material will often, as an effect, have the greater power in the long run.

This means that the player with less material must have a more important imbalance working in his favour, like a destroyed pawn shelter in front of the enemy king, or has to work actively to gain and keep dynamic imbalances, like the initiative or a king attack, to be able to steer off the impending power of the opponent's extra material.

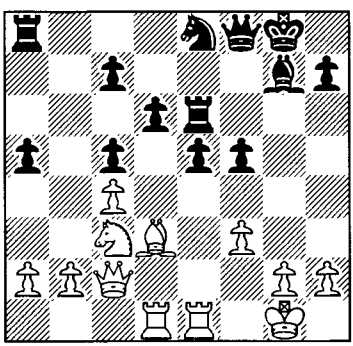


Example 113 (B)

White's development and initiative is vastly superior, but if Black can wrest the initiative, his three extra pawns will soon decide the game.

If you have the extra material, you should as always make use of it. If you hide your extra material in a corner, you will effectively play without it until it is activated.

Of course sometimes when the material difference is small (most usually a pawn), less crucial imbalances, like a stronghold for a knight in the centre, can provide more than enough compensation.



Example 114 (B)

Black has a weakened pawn shelter and needs to play for activity.

With 1...e4 2 fxe4 2 Bd4+ 3 Kh1 f4 Black got more than enough compensation for the pawn, and subsequently also sacrificed the f-pawn.

As a general rule, the player with more material gains by piece exchanges, but should avoid pawn exchanges. The obvious example of this is that you should not trade queens and enter an endgame if you are a pawn down, unless you are under heavy attack.

The player with enough extra material to be decisive in the long run should usually consolidate his position, since this makes dynamic play more difficult for the opponent.

Different Minor Pieces

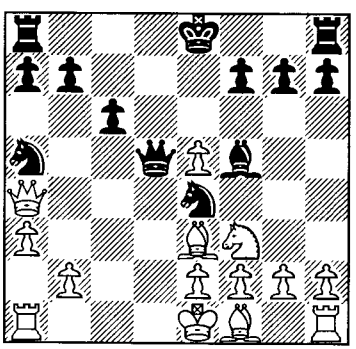
A bishop against a knight is one of the most common imbalances. It is also an imbalance that will usually work out well for the player who knows best how to treat the position to make his piece stronger than the opponent's.

The most important thing for knights is to have good strongholds – squares in the centre or one or two rows into enemy territory from where they cannot be pushed away by pawns. With a good stronghold, a knight can easily be more valuable than a bishop. This means that if you have the bishop, you should try to deprive the opponent's knight of any good squares near the centre.

Knights also thrive in closed positions, where their ability to jump over other pieces and to reach both square colours increases their power.

You often hear that bishops like open positions, and as a rule they are more powerful in open positions because of their reach. But they thrive even more in stable positions, where they can be used to slowly increase the pressure, often in combination with pawn advances.

Knights can actually be quite formidable attackers in open, unstable positions, if they are brought into enemy territory.



Example 115 (B)

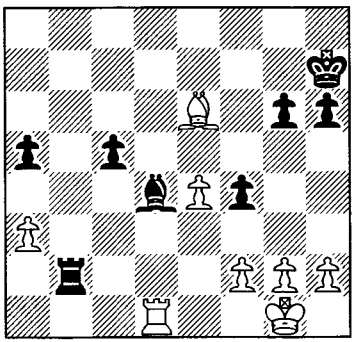
Here the black knights work together in an unstable position, not allowing White to mobilize and harmonize his position for the two bishops.

Play could continue 1...Nc4 2 Rd1 Nxb2 3 Rxd5 Nxa4 4 Ra5 Nac3 5 Rxa7 0-0, with an edge for Black.

As we already know, in the endgame the bishop's reach makes it more powerful than the knight if there are pawns on both wings, whereas the knight is often stronger with all the pawns on one wing. If your opponent has the bishop pair, his two bishops complement each other, so as a rule try to exchange one of them.

Different minor pieces can also mean different bishops, either of opposite colour or with different pawn formations. You always hear that bishops of opposite colours usually end the game in a draw, but this is only true in endgames, and even then it all depends on the position (then again, all the rules mentioned here depend on the details of the position).

In the middlegame, the opposite is closer to the truth. The player with the initiative often has a crucial advantage if there are opposite-coloured bishops, simply because he effectively has an extra piece on the colour complex the opponent's bishop can never reach. In these situations, try to develop play on the colour complex of your bishop.

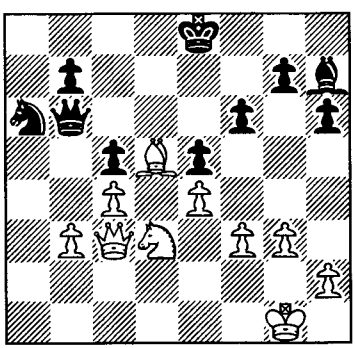


Example 116 (W)

Even in a position with this few pieces, the opposite-coloured bishops prove a crucial advantage for the attacking black forces. White has no good way of both protecting f2 and freeing his game.

A bishop with the same colour complex as its central pawns is called "bad", simply because its path is blocked by its own pawns. There are three ways to treat this:

- Exchange the bishop
- Move the central pawns, even at the cost of material
- Bring the bishop in front of the pawn chain



Example 117 (B)

G.Stahlberg-R.Wade, Marianske Lazne 1956

White's bishop is "bad", but its position in front of the pawn chain means it can still make its power felt.

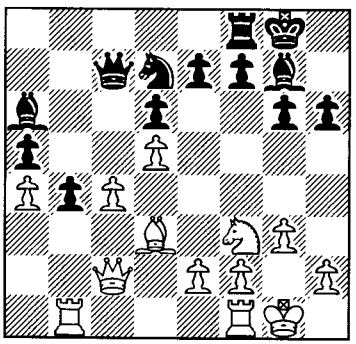
But be aware that a "bad" bishop sometimes performs an effective task by protecting "good" pawns. Having the bad bishop does not necessarily mean having an inactive one. It is the inactive bishop you have to do something about.

Exchange

Another common imbalance is a rook for a minor piece, the so-called "exchange". Since trading a rook for a minor piece (an exchange sacrifice) loses material, it can have a very surprising effect and can easily catch your opponent off guard.

A rook needs open files to show its power. Without open files it is often worth less than a minor piece. Obviously, if you have the rook, you should open files for it.

Even then, a strong bishop ruling long diagonals can easily be worth a rook, especially when bearing down on the enemy king. A knight with a central stronghold deep into enemy territory can also easily be as strong as a rook.



Example 118 (W)

A.Selezniev-A.Alekhine, Triberg 1921

In this classic example, Black has just sacrificed the exchange by ...Rb8-b4; Bd2xb4, ...cxb4.

But Black's position is better. His dark-squared bishop is now unopposed, the white rooks have no open lines, and c5 is ready to host the black knight.

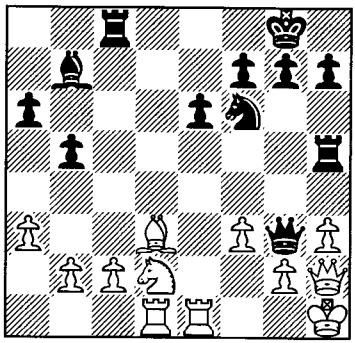
If your opponent has managed to open a file for his rook, make sure you protect the rook's entry squares into your camp. This way the rook might find itself shooting into thin air, unable to exert any power.

Gaining from a Queen Exchange

It is commonly known that you should not exchange queens unless you like the resulting endgame. Nevertheless, many players don't reflect upon who would gain from a trade of queens unless they are actually faced with the direct choice, and even then some players don't stop to reflect on how it will alter their chances.

You should always have a sense of who would gain from an exchange of queens. Most often, this is the player with more material or the sounder pawn structure. And you should only offer or accept an exchange if you have first evaluated the resulting position without queens as more advantageous to you than the alternative.

Too many players trade queens either to play for a draw or to try to save themselves from a complicated position, only to find that the resulting position favours the opponent.



Example 119 (B)

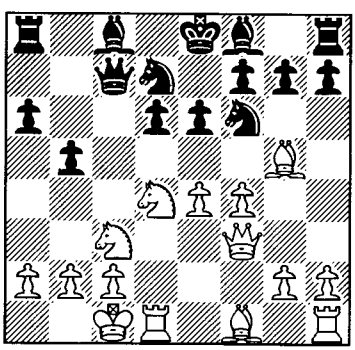
White has just about managed to bring Black's attack to a halt with 1 Qg1-h2, but Black would do best to hold on to the queen by 1...Qh4.

Instead, he exchanged queens, but after 1...Qxh2+ 2 Kxh2 Rhc5 3 Nb3 Rd5 4 Rd2 Rcd8 5 Red1 g6 6 Be2 Rxd2 7 Rxd2 Rxd2 8 Nxd2 he realized that the queenside pawn majority was a strong imbalance for White.

Pawns

Pawn imbalances are static, since pawns can never go back to where they were. As such, these imbalances are often decisive in the endgame. But they are also very important in the middlegame, since the pawns form the foundation and the landscape of the pieces, and since pushing them can make them vulnerable to further attack.

As a rule, try not to move pawns where you are weak, since they can become excellent "hooks" for the opponent's pawns to use to break up the position.



Example 120 (W)

In this Sicilian Najdorf, White is weak on the queenside and Black is weak on the kingside. Both players have chosen not to create any hooks by playing a3 or ...h6 respectively.

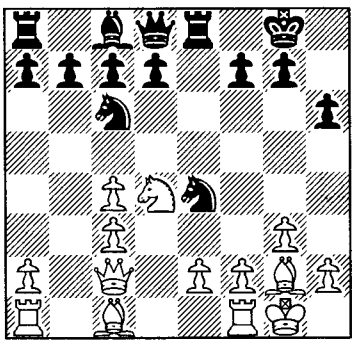
If White plays a3 it could be attacked by ...b4, while if Black plays ...h6 White would attack it by g4-g5.

It is important to realize that imbalances are not worth much if you cannot take advantage of them. So a pawn weakness is really not a weakness unless you can exploit its drawbacks.

Doubled Pawns

Doubled pawns are usually considered to be weak. This is primarily because they are inflexible standing on the same file.

The front pawn is most often harder than usual to protect, and the square it occupies is often a weak square. This means that even when the pawn is exchanged, it may leave an excellent outpost for the opponent's pieces, something many players forget.

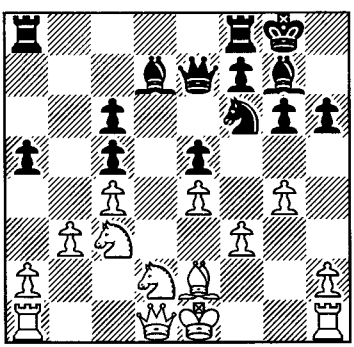


Example 121 (B)

G.Kasparov-A.Karpov, World Championship, Seville 1987

Black voluntarily exchanges the doubled white pawn by 1...d5, but after 2 cxd5 Qxd5 3 e3 Na5 4 f3 Nd6 5 e4 Qc5 6 Be3 Ndc4, he instead has a stronghold on the square where the pawn once stood.

But doubled pawns do have some advantages which shouldn't be forgotten. If they are centre pawns, they help to control more centre squares. Also, an indirect effect of doubled pawns is that you gain an extra open file for your major pieces.



Example 122 (B)

Revisiting the position in Example 11, we can see that Black's doubled pawns on the c-file cannot be effectively attacked, and they control vital squares in the centre.

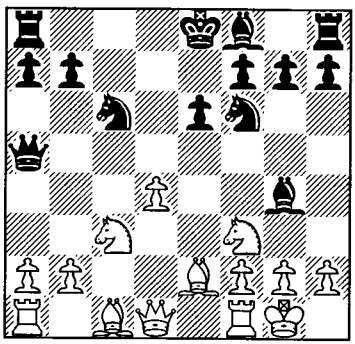
Isolated Pawns

Having an isolated pawn is in itself not a good imbalance, but they often bring indirect advantages in shape of other imbalances.

In the openings in which they most usually appear, the isolated pawn is often a

pushed central pawn which can give you a lot of space in the centre. If you have a pawn like this, use it to activate your pieces, either as a foundation for them or for opening up the position by pushing it forward and potentially even sacrificing it.

An isolated pawn also has an open or half-open file on each side of it, unless it is a rim pawn. Try to use these files to your advantage.

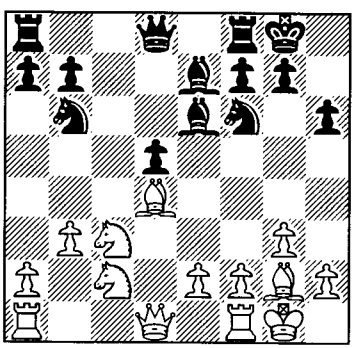


Example 123 (W)

White has an isolani on d4. Depending on how the game develops, He can push it to d5 or use it to support a knight on e5. He also has both the c-file and the e-file to work on with his major pieces.

If your opponent has the isolated pawn, first make sure it will not move forward. Since the square in front of it is weak, placing a piece on that square effectively blocks the pawn.

Then start building up pressure against it. It is often effective to exchange minor pieces, as generally the weakness of the pawn is accentuated after every exchange, and to pile up major pieces on the pawn's file.



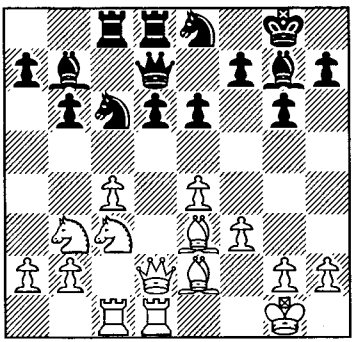
Example 124 (W)

White has control over the important d4-square and is building up pressure against the black isolani. He will continue with Ne3 and, if necessary, transfer rooks to the d-file.

Backward Pawns

Backward pawns are often hard to exploit unless they are on half-open files. Many times the square in front of the pawn is a much greater weakness. Also, be aware that they often give excellent support to pawns in front of them on adjacent files.

If a backward pawn is able to advance, it will cease to be backward. But if this advance can be prevented, it suffers from many of the same weaknesses as the isolated pawn. It is sometimes pushed to get rid of the weakness, even if it means sacrificing it to open lines.



Example 125 (B)

A.Alekhine-Cisar, Czechoslovakia 1925

White has established a so called Maroczy bind, where the backward pawn on d6 cannot advance on the half-open d-file because of the two white pawns on c4 and e4. The d6-pawn is considered to be "backward" whether the e-pawn is on e6 or e5; in the latter case, the d5-square would be very weak.

Passed Pawns

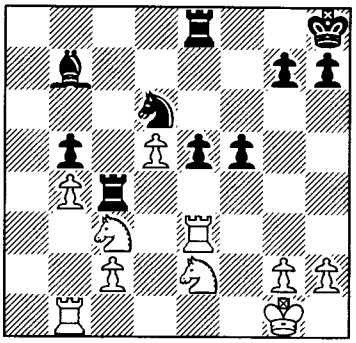
The imbalance of a passed pawn can be created from another imbalance not further mentioned here, the pawn majority.

A passed pawn is usually a big advantage in the endgame, especially when protected by another pawn. In the endgame, you should do everything possible to push it to promotion.

Likewise, in the middlegame you should try to push the pawn forward, of course carefully watching that you don't lose it, at least not without very good compensation. A passed pawn that is able to move forward easily creates panic and disorder in the enemy camp.

In other words, it is imperative for the player fighting against the passed pawn to block it. This means the square directly in front of the passed pawn is the most important square to control for both players.

If firmly blocked, a passed pawn can even become a weakness, blocking important lines. The most efficient blockading piece is the knight, which can often exert the same power as it would otherwise. In this scenario the pawn should not even be feared.



Example 126 (B)

The black knight is the true dominator of the board, not only blocking White's passed d-pawn, but at the same time controlling all the important light squares in the position.

Queens, and usually rooks, are pretty poor defenders, as they can be chased away. For this reason, if you have the passed pawn, you should try to exchange the potentially blocking minor pieces. It is usually also a good idea to keep the queens on the board, since this makes the opponent's king an unlikely blocker.

Board

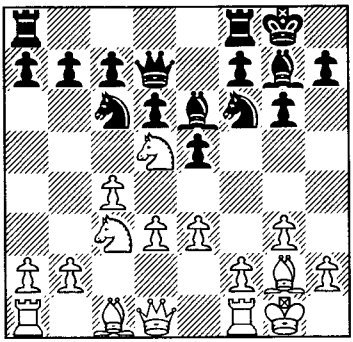
Board imbalances are imbalances concerning squares or files, including rows and diagonals. They are structural and are directly linked with the pawn chains.

Weak Squares

A weak square is a square that cannot be protected by a pawn. For the opponent, it is obviously considered a strong square. The strongest variant of this is a square in front of an isolated pawn or a backward pawn, since then it cannot be attacked down that file.

If you have a strong square, especially one in the centre or in enemy territory, it is usually an excellent home for your minor pieces, especially the knights, who are almost dependent on them to be really effective. Ideally, the square should be protected by one of your pawns, to fix the imbalance, and by another piece, ready to take the occupying piece's place should it be exchanged. If you have to recapture with a pawn, the square is no longer considered weak.

But be wary of locking a knight for too long just to protect another knight. The knights are much stronger if they cover different squares. This is an important detail to remember for the player dealing with a weak square in his position. You should often not exchange a knight protected by another knight. If instead you avoid the exchange, one of the opponent's knights will be stale.



Example 127 (B)

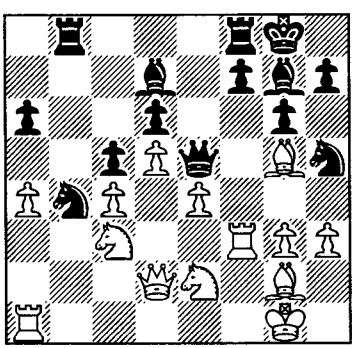
After 1...Ne8, White's knights, by the very fact that they protect each other, step on each other's toes.

If your opponent has a weak square you want to exploit, it can be a good idea to exchange the opponent's bishop of the same colour as that square.

Colour Complexes

A whole complex of weak squares of the same colour is usually a huge disadvantage, since the opponent's pieces can move on these squares unchallenged. But it is worse than that, because from these weak squares the opponent can easily attack the squares of the opposite colour, leading to a total breakdown of the defences. This is a dangerous imbalance in the hands of an attacker.

When your opponent has a weak colour complex, if possible exchange the bishop of that colour, since it is the strongest defender of the weakness. Then control the squares in the weak colour complex and start placing your pieces on them, exerting pressure on the opposite colour.



Example 128 (B)

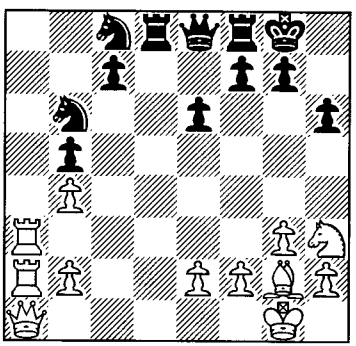
Y.Nikolaevsky-E.Geller, Tbilisi 1966

With 1...Nc2 2 Bf4 Nxa1 3 Bxe5 Nb3 4 Qd1 Bxe5, Black exchanged White's dark-squared bishop and took control over the dark colour complex. His rook and bishop are as strong as White's queen.

Open and Half-Open Files

Open files are not an imbalance, since both players can use them. But control of open files is a dynamic imbalance, an often decisive imbalance.

Rooks need open files to show their power, so you need to open files for them. But be careful not to find yourself just opening files for your opponent. You should either be able to control an open file or at least challenge your opponent for it, often leading to major exchanges. But even when controlled, an open file can be almost worthless, if all penetration squares are firmly controlled by enemy pieces, or if it can be efficiently blocked by a minor piece. On the other hand, if a rook is able to penetrate to either of the last two ranks, it can easily be decisive.

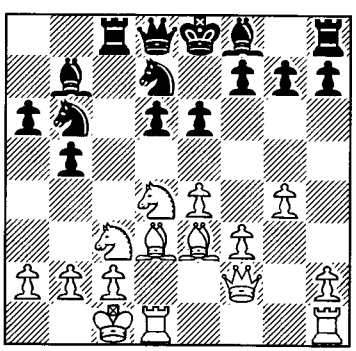


Example 129 (W)

White completely controls the open a-file, but it is still of little use to him since the entry squares at a7 and a8 are controlled by the black knights.

Half-open files are a bit different, since there's no risk that the opponent will control yours. On the other hand, if you have one, he often has another, and they are proper static imbalances.

If you have a half-open file, you should put pressure on the enemy pieces or pawns at the other end. This will ultimately decide how useful the file will be to you.



Example 130 (W)

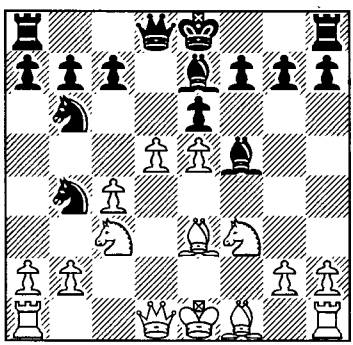
A typical set-up in the Sicilian. Black has moved his rook to the half-open c-file and advanced a pawn to b5, ready at any time to force the knight on c3 to move and potentially expose the white pawn on c2. Another common strategy is to sacrifice the exchange by ...Rxc3.

Space

Pieces need squares to move to, and they need space. This means that the player with more space has more potential mobility for his pieces and therefore greater control and freedom of choice.

Space is about controlling squares, most usually with your pawns. By pushing pawns you expand your territory and your space.

That is assuming your opponent cannot break through your shield, because that would mean he could start controlling your territory behind the pawns. Since pawns can only control squares in front of them and can only move forward, the squares behind them are potentially very weak.



Example 131 (W)

White has a big, far-advanced pawn centre and plenty of space, but Black is fighting for the squares left behind the pawns.

After 1 Nd4 Bg6 2 a3 c5 3 Nxe6 fxe6 4 axb4 cxb4 5 Na4 0-0 the chances are about equal.

So if you have more space, especially if you have pushed your pawns far or are thinking of pushing them, you must restrict your opponent's possibilities to break through and undermine your position. This means you should avoid opening files you cannot control, and should block the ones leading into your position. You should also control the squares in front of potential pawn breaks.

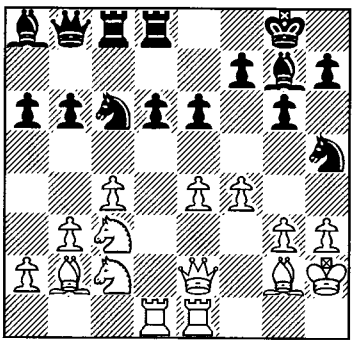
Space is a static imbalance and you should not be in a hurry to utilize it. Manoeuvre your pieces according to a plan and slowly strangle your opponent. The player with less space usually has far fewer possibilities to develop his play.

Since less space means less manoeuvrability, attacking two or more points in the opponent's camp simultaneously can be very effective, and switching between different plans can easily decide the game.

Many players will tell you to exchange pieces if you have less space than your opponent, since fewer pieces don't need as much space to do their job efficiently. This is definitely true if you don't think there is any way to change this state.

But remember, your main task if you have less space is to break up the opponent's

shield and prove he has overextended the position. So when you make that pawn break, possibly even by a pawn sacrifice, and open those files, all your pieces can spring to life like a coiled spring. This is your chance to win, and if your intention is to win, you might very well avoid exchanges.



Example 132 (B)

M.Vukic-M.Suba, Vinkovci 1977

Black has been in a bind for a long time, but was just waiting for the right moment for his pieces to spring to life via pawn breaks.

After 1...b5 2 cxb5 axb5 3 Bf3 Ne7 Black wrested the initiative and gained the advantage following 4 Nd4 b4 5 Na4 Nf6 6 e5 dxe5 7 fxe5 Bxf3 8 Nxf3 Nfd5.

Time

The Time imbalance could easily comprise all non-static imbalances since it is all about piece power and piece activity, but it makes sense to group open files with half-open files, and all imbalances exposing the king into one category.

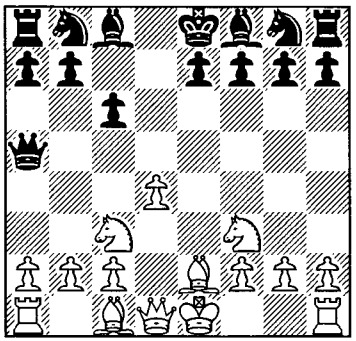
The nature of imbalances depending on time is that they will evaporate sooner or later if you don't either convert them or keep refilling them.

They are the essence of dynamic play, where players create highly charged but dynamically balanced positions, altering the different balances between the pieces until they can tip the scales to their advantage.

Mobilization

As you know by now, mobilization is about the placement and the power of your pieces. If you have the upper hand in mobilization, it means your pieces occupy better positions and exert greater power, individually or by harmoniously working together.

The simplest example of this is when you get a lead in development, since this most often means more of your pieces have reached good positions than your opponent's, and that they are ready to battle an enemy force still in disarray.



Example 133 (B)

White has a substantial development lead, having already developed three minor pieces. In two more moves, he will be fully developed.

As all opening books will tell you, if you have a lead in development, it is important to strike before the opponent can catch up, especially if his king is still not safe.

Mobilization can also be uneven later on in the game, especially in the form of local imbalances where you have better mobilization in one area of the board, whether it is in the centre or on one of the wings. As mentioned previously, if you are better mobilized locally and can bring even more power to this area, it's often very effective to continue building up your advantage before releasing the tension. It all depends on whether your opponent is able to pull in resources faster than or as fast as yourself, or whether he can launch an effective counterattack elsewhere.

Initiative

Having the initiative means you are controlling the events on the board, usually by continuous threats, direct or indirect, immediate or long-term.

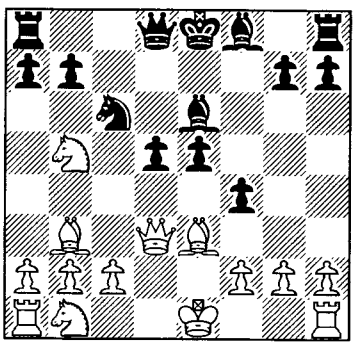
Since being in control means you can steer the game into positions of your choice, having the initiative is one of the most important imbalances. This is why grandmasters value the initiative so highly and why they can happily part with pawns and even pieces just to sustain it.

But it is a narrow path to walk upon, because missing a small tactical detail in one of the variations, or wrongly evaluating an end position, can easily shift the initiative to the opponent.

So strive for the initiative, but be careful if you have to give up something to gain it, and beware of initiative that is doomed to peter out, like the beginner's love for pointless checks.

If your opponent has the initiative, always challenge his threats and sacrifices. Do your best to outsmart him, either by finding equal or stronger threats so you don't have to play by his rules, or by accepting sacrifices that you consider to be insufficient to win or unsound.

Accepted sacrifices are like money in the bank, and you can use the gained material either to win when the initiative shifts or for a counter-sacrifice, a very common weapon among grandmasters.



Example 134 (W)

Black has sacrificed a knight for a pawn to get a dominating initiative in the centre. After 1 Bd2 a6 2 N5c3 Nd4 Black actually has quite good compensation for the material deficit.

White can instead choose to give back the material by 1 Bxf4 exf4 2 0-0, creating an uncomplicated position with White having the advantage and an easy way forward.

Combinations

Even though combinations are probably the most important part of chess knowledge, the knowledge you actually need is the knowledge of thousands of standard combinations and combinatorial patterns.
This enables you to subconsciously handle basic combinations in the same natural way you handle the simple movements of the pieces, which in turn means they become an integral part of your selection and your verification, leading to accurate calculations.

Since the myriad of combinations you should study are outside of the scope of this book, I will instead introduce you to the mechanics of a combination, so you can understand them better and know what to look for.

We will return to the topic of specific combinational knowledge when we talk about training.

Definition

There are many definitions for what a combination is. In our context, it is sufficient to treat a combination as a series of forcing moves leading to an advantage for the player initiating it.

Of course, there are combinations leading to bad positions, but no one executes them unless in error and they are not interesting to us. And yes, a simple capture or a favourable exchange also falls within this definition, but this is actually quite natural because in a simplistic way they are the simplest cases of a combination.

Most of us have a sense of a combination being more than a favourable series of forcing moves, since we feel it should be something out of the ordinary. For this reason a combination is often said to include some form of sacrifice, mostly in the form of a temporary material sacrifice. Again, for us this is not very interesting, since all sacrifices should be part of the forcing moves we look for anyway.

Some theorists even add the importance of surprise, but your opponent might see the combination and yet allow it, even when it is advantageous for you, because no better defences exist. Or the combination may be just a persistent threat, preventing your opponent from pursuing any moves which would enable your com-

bination. So surprise should not be part of the definition. Rather, you should try to make combinations as natural a part of your calculations as any other moves. This is why in this book combinations are part of what you should know by heart.

Even if there are combinations leading to other advantages, almost all decisive combinations create either a material advantage or lead to checkmate, or at least create a position in which one of them is inevitable.

If we for a second forget about stalemate, checkmate is equal to capturing the priceless king. This means most if not all of the mechanisms in checkmating combinations are the same as in material combinations.

The only combinations really deviating from the pattern of creating a material advantage are the drawing combinations, especially the ones leading to stalemate or perpetual check. But even these combinations share many of the same mechanisms in that they still consist of a series of forcing moves leading to an advantage, an advantage compared to the original position that is.

Threats

A threat is an intended move that will create an advantage unless it is adequately met by the threatened player. Threats are very closely related to forcing moves, in that forcing moves are the moves creating threats. For example, if you move a pawn so it can capture the opponent's queen on the next move, it is a forcing move creating the threat of winning the queen.

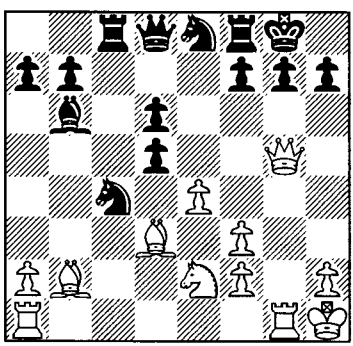
We have already touched on the importance of forcing moves in your calculation. The very nature of their force and the limited choice they leave your opponent make them prime candidates for creating an advantage.

Always evaluate all forcing moves for both yourself and your opponent, however unsound they might look at first sight, and always calculate a series of forcing moves through to the end. You should do this for all series of forcing moves, not just series of exchanges.

Simple Threats

Simple threats are those threatening only one thing, such as a winning a piece or checkmating the king. There are only a limited number of simple material threats:

- Capture. By capturing an opponent piece, you create the threat of winning material. Usually, the material balance is immediately restored by a recapture, but until then it is a threat.
- Attacking a more valuable piece. This includes checking the king.
- Attacking an unprotected piece or adding a further attacker to a defended piece so that the number of attackers is greater than the number of defenders.
- Attacking or removing a defender by means of capture, deflection or even interference.
- Threatening to trap a piece so it cannot escape capture.
- Threatening to promote a pawn.



Example 135 (W)

White wins by the simple chain of threats 1 Qxg7+ Nxg7 2 Rxg7+ Kh8 3 Rg8+ Kxg8 4 Rg1+ Qg5 5 Rxg5 mate.

The nature of a simple threat is such that even if the opponent has to meet it, it is often not dangerous, simply because the opponent just meets it with his next move. The threat still has the power of force, but unless the threat cannot be met, it does not win the game.

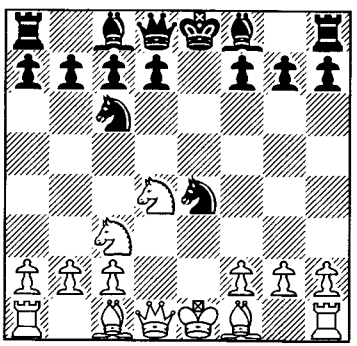
It is when you start combining simple threats that their true force is unleashed. Many combinations, especially mating combinations, are simply a series of threats, one after the other, until one of them cannot be met. In this case we only use the power of the simple threats to reach an advantage.

But more often than not, simple threats can be met, one after the other. The alternating moves of the two players give the opponent a chance to always meet your latest threat.

Desperado

Few tactical devices have more potential for surprise than the desperado. The typical situation arises when one player makes a capture and his opponent, instead of making the obvious recapture, makes another capture or creates another threat.

The piece which is left uncaptured, the so-called "desperado", suddenly has the potential to continue capturing or creating threats. Since recapturing this piece at the second chance normally loses material, the opponent is usually forced to continue capturing with his capturing piece. The first player running out of captures, or having to recapture, loses this chicken race.



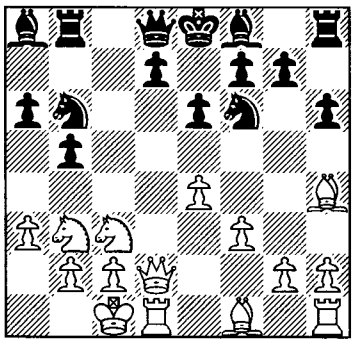
Example 136 (W)

Black has just captured a pawn with 1...Nf6xe4 and plans to regain the piece after 2 Nxe4 Qe7 3 f3 d5.

But White chose 2 Nxc6. If Black now captures with 2...bxc6, he loses the piece, since 3 Nxe4 Qe7 is countered with 4 Qe2.

Instead, Black continued in the desperado way, 2...Nxc3 3 Nxd8 Nxd1 4 Nxf7 Nxf2 (4...Kxf7 was also possible) 5 Nxh8 Nxh1, unable to bail out until most possible captures were exhausted by White.

Since the desperado is outside our normal recapture habit, it is very easy to overlook or to miscalculate the consequences. When entering this type of tactical sequence or letting your opponent do so, be very sure to have calculated all possible variations.



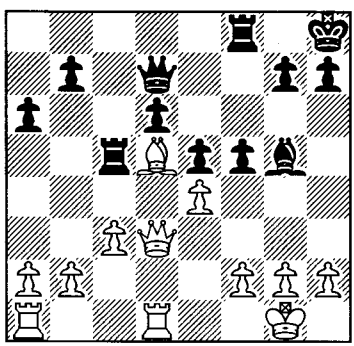
Example 137 (W)

After 1...Nxe4, White entered a desperado by 2 Bxd8 Nxd2 3 Bxb6. Since 3...Rxb6 loses to 4 Rxd2, he thought he could keep his bishop after 3...Nxb3 4 Ba7 Rb7 5 Bf2 Na5 with a slight edge, despite being a pawn down.

But 3...Nxb3+ is check and after 4 cxb3 Rxb6, it is instead Black who has a substantial advantage.

Deflection

Deflection is when you force a piece to move away from what it is protecting. A special case of this is the overburdened piece (or overloaded piece), guarding against two threats at the same time. If one threat is executed, the piece is forced to move away from the other threat.

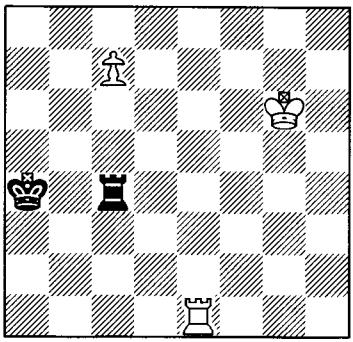


Example 138 (W)

Black has just played ...f7-f5, but now the queen is overburdened.

After 1 exf5 Rxf5 2 Bxb7! Black has to lose the pawn, because if the queen is allowed to be deflected by 2...Qxb7, Black loses the rook.

But of course a piece can be lured away in other ways. One of many common examples is when a rook attacking a nearly promoted pawn gets pinned on a rank and therefore has to leave the crucial file, letting the pawn promote.

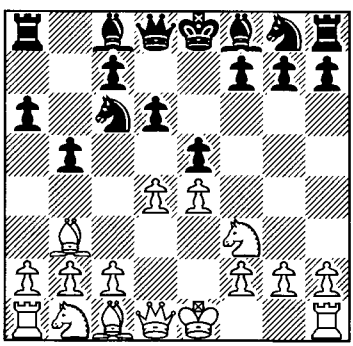


Example 139 (W)

With 1 Re4!, White pins the black rook and forces the pawn to promotion.

Trapping

Trapping is quite common in the openings. The trapped piece is often a bishop caught by the enemy pawns, or sometimes a rook that has moved in front of its pawn chain and has no way to get back. It is also not uncommon to see adventurous queens being trapped early on, especially when going pawn hunting in enemy territory.



Example 140 (B)

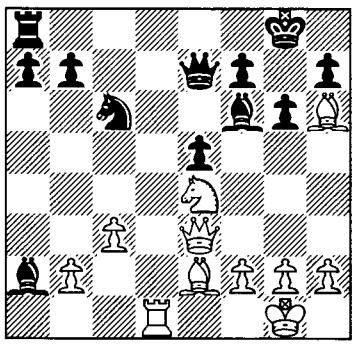
A typical trapping example from the Ruy Lopez. After 6...Nxd4 7 Nxd4 exd4, White should not continue 8 Qxd4, because of 8...c5! 9 Qd5 (or 9 Qd1 c4) 9...Be6 10 Qc6+ Bd7 11 Qd5 c4 and the bishop is trapped.

For some reason many players don't see a trapping coming. Maybe this is because there always seems to be so many squares for the pieces to move to. Even if a piece looks a bit restricted, we are often content with it having one more square to go to, not realizing how this square could also be easily taken out.

A special case of trapping is the trapping of the king, which we call checkmate. Given that checkmate is the ultimate objective of the game, it is natural that this trapping is not as commonly overlooked.

Decoy

Creating a decoy is basically the same as creating a deflection, but the objective is instead to force a piece into a certain situation where it can be exploited in follow-up tactics. A common tactic is to force a piece to a certain square, by capture, check or other device, where it is subjected to a fork.

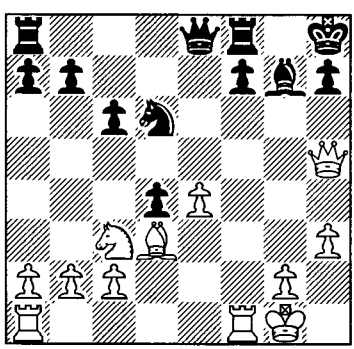


Example 141 (W)

Black has just made the mistake of capturing the pawn on a2. White wins by the decoy 1 Rd7! Qxd7 2 Nxf6+, or 1...Qe6 2 Bg4! 2 Qxg4 Nxf6+.

Obstruction

The purpose of an obstruction is the same as for a decoy, but the idea of luring a piece onto a certain square is to have it blocking the opponent in a decisive way; for example, forcing a piece to block the escape route for the king in a mating combination.



Example 142 (W)

R.Fischer-P.Benko, New York 1963

After 1 Rf6! Bxf6 2 e5, the black bishop obstructs its own army and prevents the liberating 1...f5, so White forces mate. White also wins after 1...Kg8 2 e5 h6 3 Ne2 followed by Rxd6, since the knight cannot move because of Qf5 and Qh7 mate.

Multiple Threats

So if simple threats are often not decisive, what if you could unleash more than one threat at a time? If you threaten two or even more things at the same time,

surely it will be much more difficult, if not impossible, for the opponent to meet them all? Of course! Since your opponent only has one move to counter all your threats, this kind of threat is often winning.

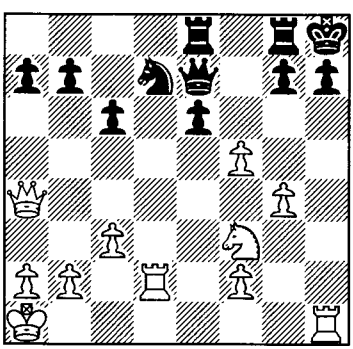
Again, there are only a limited number of multiple material threats:

- Fork
- Pin
- X-ray
- Discovered Attack
- Interference

Fork

Even though many people only use the term "fork" for a knight or a pawn simultaneously attacking two pieces, here we will refer to the fork as the situation in which one piece simultaneously creates two or more threats at the same time. For example, a queen simultaneously threatening checkmate and a capture would be a fork; likewise, a rook threatening two pieces at the same time along a rank or file.

Forks are commonly combined with decoys or deflections.



Example 143 (W)

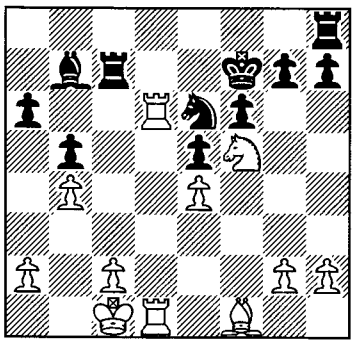
After 1 Rxd7! Qxd7 2 Ne5, the white knight threatens both the black queen and checkmate on g6. Black cannot meet both threats.

Pin

The term "pin" is usually only used for a piece being immobilized because moving it would expose a more valuable piece behind it.

We will also use this term for the so-called "skewer", in which two pieces are at-

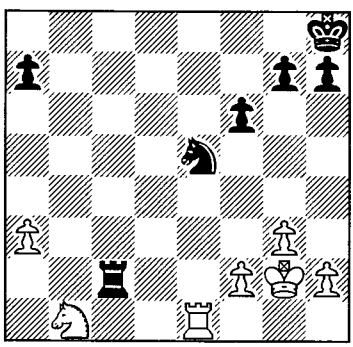
tacked at the same time, one indirectly by being on the same line as the piece directly attacked.



Example 144 (W)

After 1 Rd7+ Kg6 (1...Rxd7 2 Rxd7+ is instead a fork) 2 Rxc7 Nxc7 3 Rd7, the white rook is skewering the black knight and bishop.

Furthermore, we will also refer to the pin as any situation where a piece is blocking a line and moving that piece would enable the execution of a threat along the same line. For example, a knight blocking a rook from executing a back-rank checkmate would be in a pin.



Example 145 (W)

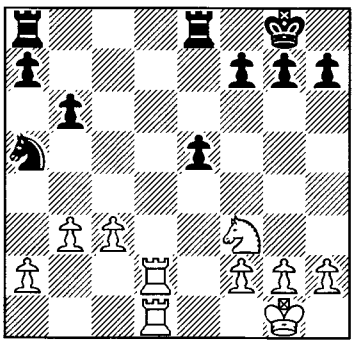
The black knight is pinned, since it cannot move without leaving the way open for a checkmate on e8.

X-Ray

Whereas forks and pins normally involve two or more enemy pieces and only one of your own pieces, the X-ray normally involves only one enemy piece and two of your own. It's a not-so-common tactical device where one of your pieces protects the other, even though the enemy piece is in-between. Other definitions of X-ray exist, but this is the one we will use in this book.

The whole idea with the X-ray is that one of your two pieces captures along the same line as the enemy piece, so if the enemy piece captures your second piece, your first piece can recapture.

The most common example is probably when you protect a rook challenged by an enemy rook on your first rank by returning your other rook to the same rank, but on the other side of the enemy rook. That way, both of your rooks protect each other even though there is an enemy piece in-between. This particular tactic is actually often overlooked when calculating combinations based on back-rank weaknesses.



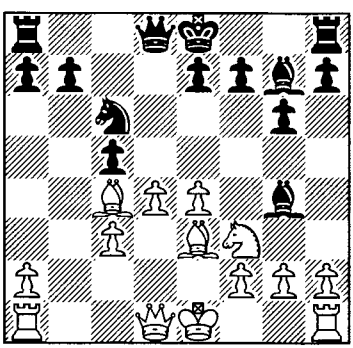
Example 146 (W)

It is a common mistake among rookies to believe that White can win a pawn by 1 Nxe5 in positions like this. They think that Black cannot recapture because of 1...Rxe5 2 Rd8+ Rxd8 3 Rxd8+ Re8 4 Rxe8 mate.

But of course Black just calmly replies 2...Re8, and the two rooks protect each other through X-ray.

Discovered Attack

In a discovery attack, one piece unleashes a threat from another by moving out of the way. In doing so, it can itself make a second threat.



Example 147 (W)

Black has just played 1...Bc8-g4 instead of 1...0-0. White exploited the mistake by 2 Bxf7+! Kxf7, followed by the combined check and discovered attack 3 Ng5+, winning back the bishop.

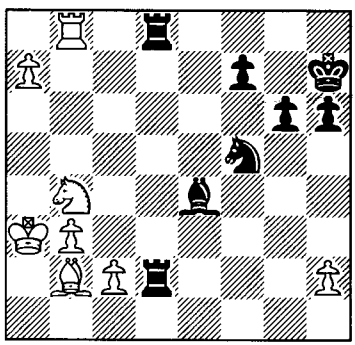
Of course, if one of the threats is a check, the second threat is usually impossible to meet. If the discovered piece is the checker, we call this a discovered check.

The most powerful example of this is the double check, where both pieces threaten the enemy king. Since both pieces cannot be captured or blocked at the same time, the king is forced to move. If it cannot, it is checkmate.

Interference

Interference is when a piece is placed so that it blocks one or more pieces from influencing important areas of the board. For example, if a rook protects against a checkmating threat, any piece placed between the rook and the mating square is interfering.

By interfering with more than one enemy piece, the interfering piece can effectively remove defenders and thereby create several threats at the same time. If the interfering piece is placed at the crossroads between two crucial enemy lines, even capturing the piece often does not help, because the capturing piece still blocks the second line.



Example 148 (W)

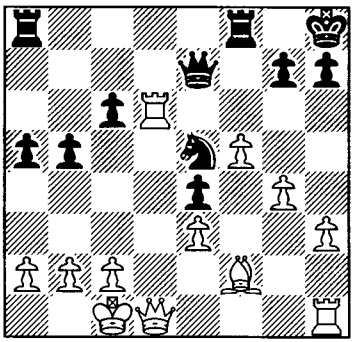
With 1 Nd5!, the white knight is placed at the crossroads between the rooks and the bishop, threatening both the rook on d8 and to queen the pawn.

Black cannot survive after 1...Bxd5 2 Rxd8 or 1...R2xd5 2 a8Q, and if 1...R8xd5 White plays 2 Rh8 mate.

It is also possible that the interfering piece only interferes with one enemy piece, but because in itself it creates a second threat, like a check, overall a double threat is created.

Most examples of interference are quite uncommon in practice, but there is at least one situation that is too often overlooked. Every time a piece protects another which is attacked, a protected enemy piece placed in its way can easily turn events around.

For example, if a queen protects a rook along a file, an enemy knight placed in its way so that it is protected by a pawn would be impossible for the queen to capture. Even if the enemy knight can be captured by a pawn, the pawn would still block the queen from protecting the rook.



Example 149 (B)

The white rook on d6 is protected, as is the d3-square. But 1...Nd3+! interferes with the queen along the d-file and after 2 cxd3 the queen's influence is still blocked. White loses the exchange.

Combinations of Threats

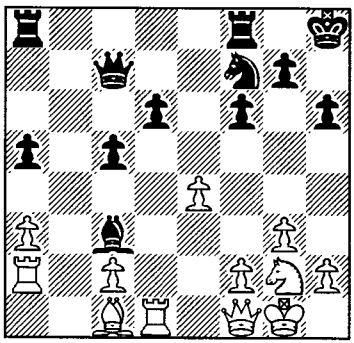
A combination is a series of forcing moves, which is normally equivalent to a series of threats, executed along forced paths until one of them cannot be met. Let us take a closer look at the mechanics of the combination.

Indirect Threats

By an indirect threat I mean "a threat to threaten". Of course, this is often much too subtle to actually be of much value, but when you realize that an indirect double threat – that is, when you threaten to make a double threat on the next move – has almost the same value as a simple threat, the indirect threat suddenly becomes quite interesting.

For example, a simple threat, like a check, combined with an indirect threat, like the threat of forking a queen and rook, is a double threat that often is just as strong as two simple threats combined.

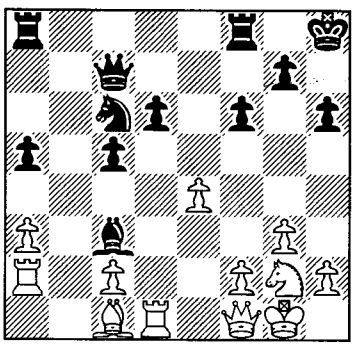
But before we get too excited about indirect threats, we should remember that an indirect threat is one further step from realization than a direct threat. Because of this, it is often easier for the opponent to find a move defending both threats. For example, if you try to combine two indirect forking threats into one double threat, it will often fail, if only because one of the indirectly threatened pieces in one threatened fork can protect against the other threatened fork, and the whole combination falls apart.



Example 150 (W)

With 1 Nf4!, White threatens not only 2 Ng6+ and 2 Nd5, but even 2 Ne6, thereby creating a triple indirect threat.

Although Black can meet two of these threats by moving the queen, he cannot at the same time meet the threat of Ng6+.



Example 151 (W)

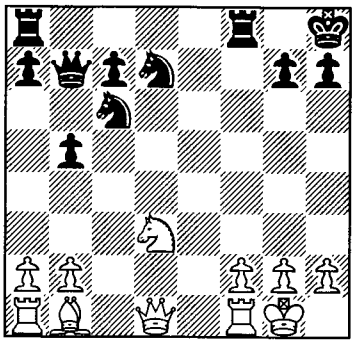
In this almost identical position, 1 Nf4 still combines the same three indirect threats, but this time they can all be met by 1...Qf7!.

Threats as Protection

When you realize you can execute a threat, you should ask yourself whether its execution gives you direct benefits, or whether it is actually more valuable to you unexecuted. You have probably heard the expression "a threat is stronger than its execution". In the same way, an indirect threat can also be stronger than its execution.

For example, if you see you can create a mating threat by moving your queen, maybe it is better to "save" that threat until it can be made part of a double threat.

A special case of this is to use a threat as a protective device. In Example 152, any square the queen attacks when threatening checkmate is indirectly protected. This means you can put another piece seemingly en prise on one of these squares. If the piece is captured, it can be regained with the fork created by the queen threatening checkmate.

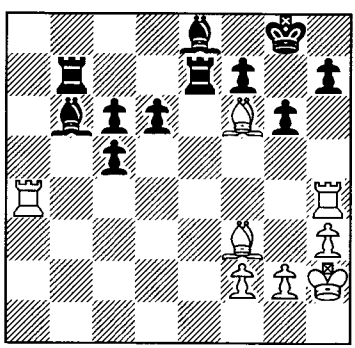


Example 152 (W)

White is able to play 1 Nc5, since the knight is protected by the mating threat 1...Nxc5 2 Qh5, winning back the piece.

Threat Paths

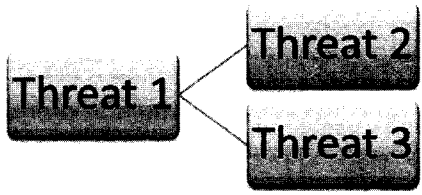
As we have already stated, the series of threats combining into a combination can be as simple as a series of simple threats executed until one of them cannot be met. This can be seen as one straight path of threats:

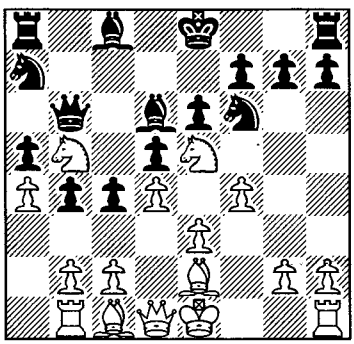


Example 153 (W)

With 1 Rxh7 White threatens checkmate, but after 1...Kxh7 2 Rh4+ Kg8 3 Rh8 mate, the result is the same.

A simple double threat would immediately split the path into two, whereas a fork following a forced move would be a path split at the second threat:



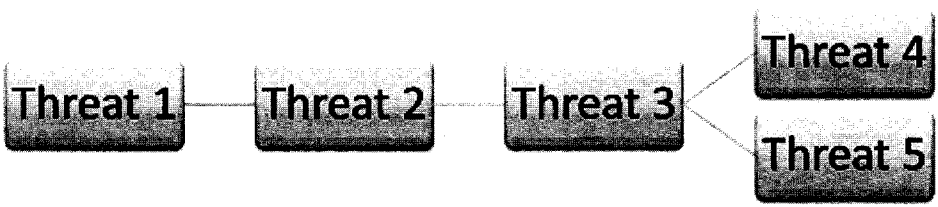


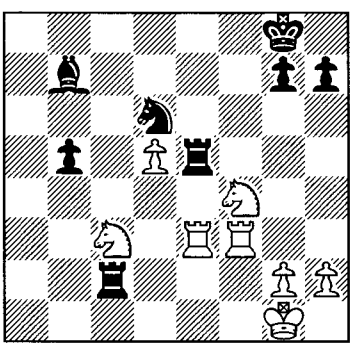
Example 154 (W)

After 1 Bxc4 White threatens to win the pawn (threat 1). If 1...dxc4, White forks the queen (threat 2) and the already attacked bishop (threat 3) by 2 Nxc4. The only way for Black to avoid this is to accept the loss of the pawn.

1...Bxe5 2 fxe5 dxc4 (or 2...Ne4 3 Bd3) 3 Nd6+ Kd7 4 0-0 does not help.

One of the most common threat paths in a combination is a longer series of threats ending in a double threat:

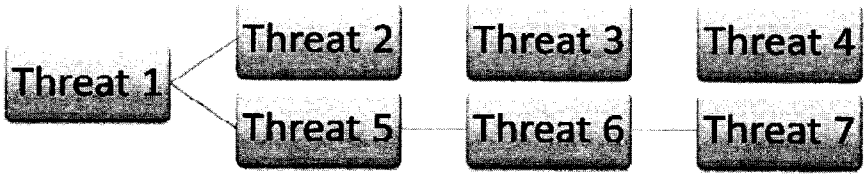


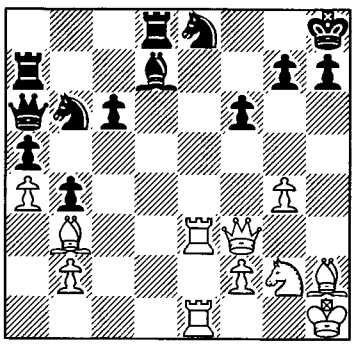


Example 155 (B)

Black wins by 1...Rxe3 2 Rxe3 Rc1+ 3 Kf2 Rxc3 4 Rxc3 Ne4+, forking king and rook.

Normally, once a double threat is achieved, the combination has reached its goal, but the threats in the double threat do not have to be one-movers – they can in turn be a series of threats, like a series of exchanges, so the threat paths do not have to stop after the junction:





Example 156 (W)

With 1 Qe4, White threatens 2 Qxh7+ Kxh7 3 Rh3+ Kg6 4 Nf4+ Kg5 5 Rh5+ Kxg4 6 Bd1+ Qe2 3 Bxe2 mate, but also 2 Qxe8+ Rxe8 3 Rxe8+ Bxe8 4 Rxe8 mate.

Black can try to protect both threats by 1...h6, but a third threat 2 Qe7 (not shown in the threat diagram), threatening 3 Qf8 mate at the same time as 3 Qxd8, decides the game.

Of course, it is easy to realize how these threat paths are just a special case of the calculation of variations. Even more so, they are actually the easiest calculations to perform, since they all consist of a limited number of forced paths with a few junctions.

So why is it we often miss these combinations, if not when they are immediately before our eyes, then more often when we look just a few moves into the future?

The answer is usually one of two traps we fall into. The first one is that we do not look at all the forcing moves, and if we do, we do not see them all the way through to the end. Again, always look at all forcing moves, and always look at the position resulting from the possible series of forcing moves and try to see at least one move further.

Even when we learn to look at all forcing moves, we are usually sloppy when it comes to looking at them a few moves ahead. Countless games have been won by

the player who looked at surprising forcing moves just a couple of moves into the future.

The second trap is to consider chess as just a thinking game. There are many players who believe that if they are just logical and intelligent enough, they will be able to find the combinations, either by brute force calculation or by creativity. Yes, the silicon monsters are very successful at brute force calculation, and yes, grandmasters seem to create great ideas out of nothing. But remember that the human mind cannot calculate millions of moves per second, and remember that there is a reason why grandmasters can play "bullet" chess with 60 seconds for the whole game.

The answer is that in order to see combinations quickly and effectively as part of our calculations, we need to immediately and almost subconsciously recognize them. Chess is a thinking game, but it is also a game of pattern recognition. The more patterns you know, the more time you can save and use to see further than your opponent.

Specifics

Specifics are about knowing your combinations. There is no shortcut to this knowledge. You have to study thousands of combinations and repeat them to make them stick. Remember, you are trying to make the combinations part of your subconscious knowledge. This means it is more important to learn them than to solve them. Of course, you will remember them better if you first try to solve them, but if you can't, just look at the solution, understand it and ask yourself why you couldn't solve it. Then remember it.

Since repetition is the mother of learning, you should return to combinations again and again. You might, for example, start out with 1000 combinations and when you have gone through them the first time, repeat them in shorter time frames two, three or even four times. Then move on to the next 1000.

Don't get me wrong, it is very fruitful, even necessary for becoming a strong player, to analyse complex positions involving complex combinations. But that is not what you are after when we are talking about combination knowledge. Instead, we are talking about simple and medium difficulty combinations that can become part of your subconscious knowledge.

Even repeating seemingly very simple combinations makes sense, because even they might not be an integral part of your calculations. It might instead be a waste of time to learn complex combinations by heart, because they are not common enough to be likely to appear in your games and your calculations.

Attack

How is the concept of attack different from exploiting the imbalances of a weakened king position, especially combined with the concept of time and dynamic play, and even with combinations?

Well, in chess as in life, everything tends to be interrelated, and it is the human mind that needs clearly defined and mutually exclusive concepts to make sense of it all. In reality, an attack often takes place in a weakened king position, and time and dynamic play is paramount to and almost equivalent to attack in its broader sense. And since tactical play is vital when breaking through, combinations are also an important ingredient.

The reason for making attack a special area of knowledge is because of its importance and its special features. By attack, we mean an attack on the king, even if many of the features can be equally used when not explicitly attacking the king, most notably in dynamic play.

The important difference between an attack against the king and other areas of chess is the difference in objective and the implications of the objective. Attacking the king means that you go for checkmate and no means are too extreme, no sacrifice too big, if you can achieve this objective. Because of this, the characteristics of attack are quite different from the other areas.

The attacker should have the mindset to "do or die", that is he should do everything in his power to reach his objective, and play as if the game is lost if he cannot reach it. In reality of course, it is not uncommon for a strong attack to gain material, and if the attack starts running out of power, the attacker can often fall back on this to win or get a draw. The important thing is the mindset, and not to settle too soon for small material gains.

Area

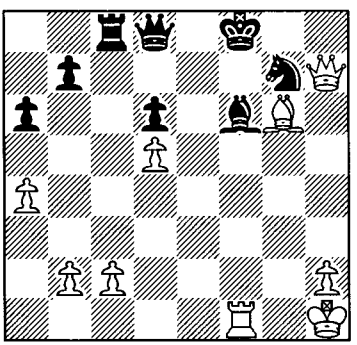
Since you are playing the attack as a "do or die" mission, it is only what is actually affecting the attack that is important. This means you are concentrating only on one area of the board, the area where the enemy king resides.

King Location

Since we focus our efforts in the area of the enemy king, it is important to understand if and how it can actually change.

If you are attacking an uncastled king, it will understandably try to escape to one of the corners, ideally by castling. This means your first objective has to be to make castling impossible or at least very hard, and keep the king in the centre by any means possible. Then, and only then, can you start the actual assault.

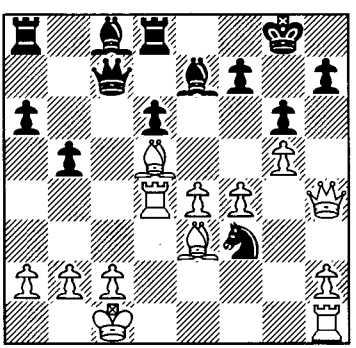
To a large extent the same is true for a castled king. If the king's position cannot be held, the king will try to evacuate the area and flee to the other flank. It is important you prevent this by shutting off the king's escape. If you succeed in doing so, the king will most probably succumb to your forces. This is the secret of why so many so-called "quiet moves" prove to be so powerful. They don't seem to help attacking the king, but they keep him imprisoned.



Example 157 (W)

With 1 Re1!, White cuts the black king off from its escape route and forces checkmate after 1...Be5 2 Qh8+ Ke7 3 Qxg7 mate.

If you cannot prevent the enemy king escaping, you can often make its escape costly. It is not uncommon for the whole flank to be obliterated when the king flees.



Example 158 (W)

S.Dvoirys-G.Kasparov, Vilnius 1975

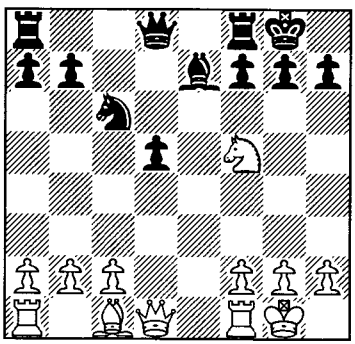
After 1 Bxf7+ Kg7 2 Qh6+ Kxf7 3 Qxh7+ Ke8 4 Qxg6+ Kd7, all the black kingside pawns are captured. White continued the attack by doubling rooks on the d-file, but the game was eventually drawn.

Decentralization

Kings usually hide on the edge of the board because it is harder for the attacker to get to that area. But this is also true for the defender, who can face serious challenges when trying to bring in his reserves.

To get to a castled king, you need to start focusing on the edge of the board instead of the centre, at least partially, and concentrate your forces on the edge. This is where the greatest risk lies.

If your attack fails, even if material is still the same, you will often find your forces in the wrong place, passive bystanders when the enemy forces take control of the centre and the game. This is why a thrust in the centre can be a very effective way to remove the sting from an attack.



Example 159 (W)

White started an attack with 1 Qg4 g6 2 Nh6+ Kh8, thereby decentralizing his forces. After 3 Re1, Black killed the attack by 3...f5 and simultaneously trapped the white knight.

Weakness

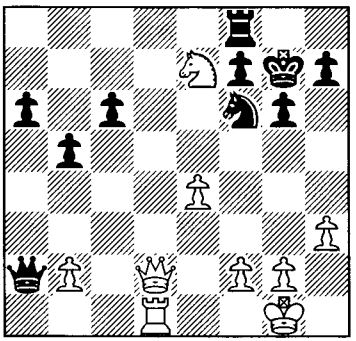
One of the cornerstones of warfare is to attack your enemy at his weakest point. This is also true in chess and can hardly be overstressed. You should attack where the king's position is the weakest. But remember, a weakness is really not a weakness unless you can get at it.

Attacking Points

The most obvious plan is to start putting pressure on one specific weak square in the king's shelter, for example f7, g7 or h7 in front of the king. The aim is to either break this point down and invade with your pieces, or force your opponent to further weaken the position, giving you new weaknesses to attack.

In his highly recommended classic work *Art of Attack in Chess*, Vladimir Vukovic talks about so-called "focal points", from which your pieces checkmate the oppo-

nent, and of secondary focal points, used by the attacking pieces. Of course, what you call them is not important, but you need to identify where the weak squares are and how to exploit them.



Example 160 (W)

White launches his forces on the focal point g7 by 1 Nf5+! gxf5 (or 1...Kh8 2 Qh6 Rg8 3 Rd8) 2 Qg5+ Kh8 3 Qxf6+ Kg8 4 exf5 Qb3 (if 4...Rb8 5 Qg5+ Kh8 6 f6 or 5...Kf8 6 f6) 5 Rd4, forcing Black to resign.

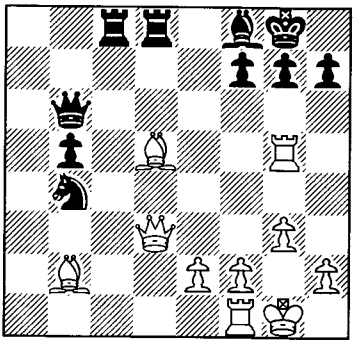
Colour Complexes

A weakness can be a single square, whether empty or not, whether protected or not, but it can also be a whole colour complex, meaning many squares of the same colour are weak around the enemy king.

It's important to realize that in an attack, a weak colour complex does not depend entirely on pawns being placed on the opposite colour. If you look at bishops and pawns, it is obvious that they are biased towards one colour. But if you look at the knight, it is as biased as the pawn because it only covers one colour at a time. Also, the queen inherits half of its mobility from the bishop, and in some situations even the rook at close range and the king are biased in this way.

So again, a weak colour complex is a set of weak same-coloured squares – weak because the pawns and the pieces around them are limited in their ability to cover that colour of square.

If you think in terms of colour complexes, you will often find that by eliminating a single pawn or forcing a certain single weakness, the king's position becomes one big weak colour complex, ready for your forces to invade.



Example 161 (W)

V.Inkiov-T.Liberios, Plovdiv 1982

Black does not have a weak colour complex yet, but after 1 Bxf7+! Kxf7 2 Qxh7, White has created one by eliminating the pawns protecting the light squares.

Black resigned after 2...Qh6 3 Qf5+ Kg8 4 Rg6 Qd2 5 Qe6+ Kh7 6 Rg4 Rc4 7 e4.

Power

To succeed in our attack we need power. A common mistake is to start attacking with too few pieces. Often this is because you recognize some of the necessary elements of an attack and you want to grasp the opportunity before it disappears. Many beginners start attacking the king with two or even one piece, not realizing that the number of successful attacks with fewer than three pieces is low.

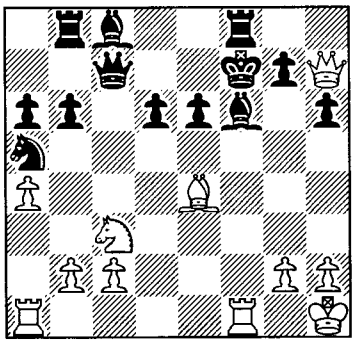
Unless the situation is very special, and the opportunity truly will disappear if you don't act immediately, mobilize your pieces fully before attacking. Remember, for every piece you mobilize, your opponent will at least not be able to mobilize more pieces in the same number of moves, and if you have the upper hand in the attacking area, your mobilization will be swifter and easier.

Of course, if one or even several of your pieces have to overcome great challenges to get mobilized into the crucial area, it is usually not worth pushing their mobilization, and you should probably continue the attack without them.

What is special about attacking is that we need the power in a certain area, and since the attack is "do or die", it is the power in that area alone that we are interested in.

This means that it doesn't matter what the total material balance is, as long as it is to our advantage in the area around the king. It is very common to sacrifice one piece and then bring in a second one with a tempo. This way, your number of pieces in that area remains the same, but you have eliminated something in your opponent's defence when sacrificing.

One of the most common examples of this is when you sacrifice a rook for a minor piece or even a pawn, just to bring the other rook to the same location with a check, a rook that otherwise would have taken at least two moves to mobilize.



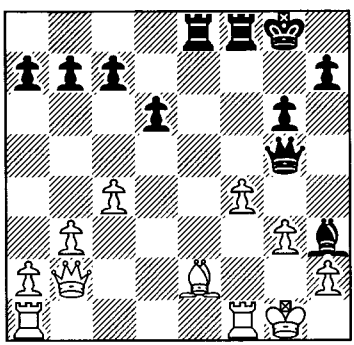
Example 162 (W)

P.Mross-R.Teschner, Berlin 1949

By playing 1 Rxf6+! Kxf6 2 Rf1+, White eliminates a defender but still keeps a rook on the f-file.

He won after 2...Ke5 (if 2...Ke7, then 3 Qxg7+ Ke8 4 Rxf8 mate) 3 Rxf8 d5 4 Qg6 Kd4 5 Bxd5 Kc5 6 Qd3 exd5 7 b4+.

An interesting fact is that numbers are often much more important than size. Since in the attack a few squares or open lines are often what is important, any piece attacking the square or influencing the line is as important and as powerful as any other, no matter what size it is.



Example 163 (B)

V.Alatortsev-I.Boleslavsky, Moscow 1950

With 1...Bxf1! 2 fxg5 Rxe2, Black creates a majority of pieces. The white queen can do little to help its king.

After 3 Qc3 (3 Qd4 Bh3 4 Qh4 Rg2+ 5 Kh1 Rxa2 6 Rc1 Bg2+ 7 Kg1 Bc6 is still losing) Bg2 4 Qd3 (4 Rb1 Rxa2 would have put up more resistance) 4...Bf3 5 Rf1 Rg2+ 6 Kh1 Bc6 7 Rxf8+ Kxf8 8 Qf1+ Rf2+ White resigned.

A pawn covering a weak square on h7 and also covering a king escape via f7 is often more powerful than any piece, and rooks could be almost worthless if no open files are available. On the other hand, the unchallenged mobility of the queen and its ability to cover all adjacent squares when close makes it an invaluable piece in the attack, as we all know.

Time

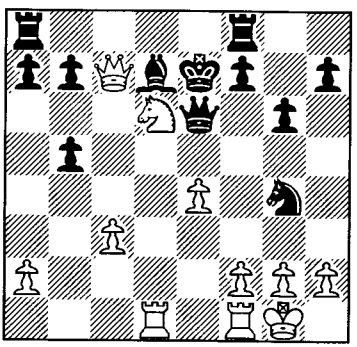
Time is almost always a crucial part of an attack. The main reason for this is that our "do or die" mission is all about overpowering our opponent in one area of the

board. The more time the opponent has, the more he will not only be able to coordinate his local defence, but also bring in reserves from the rest of the board.

Momentum

Momentum is about constantly moving forward, building up your attack and executing it, never letting your opponent save his breath or catching up with you.

Every move should have a purpose in an attack, if possible threatening something the opponent must lose time defending. If you feel you don't know what to do next, think harder, because every move has to count for something. Even quiet moves have a specific purpose and can be extremely strong. Losing the momentum means losing your attack.

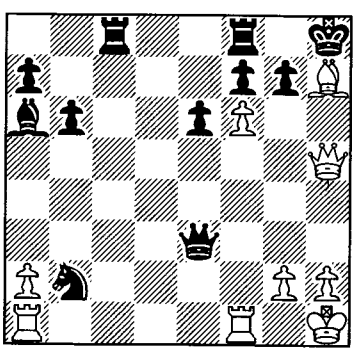


Example 164 (W)

R.Fischer-O.Celle, Davis 1964

White keeps the momentum of the attack by further sacrifices: 1 Nf5+! gxf5 (if 1...Kf6 2 Rd6) 2 exf5 Rac8 (or 2...Qxf5 3 Qd6+ Kd8 4 Qxf8+ Kc7 5 Qxa8) 3 Rxd7+ Qxd7 (3...Kf6 4 fxe6 Rxc7 5 Rxc7 also wins) 4 f6+ Nxf6 5 Re1+ Ne4 6 Rxe4+, with an easy win for White.

As long as you feel your advantage is increasing move by move, and as long as your opponent must spend more and more time defending, you know you are on the right track. If not, you should spend time evaluating ways of getting the attack moving in the right direction again, or decide if you have overestimated the attack and need to try bailing out.



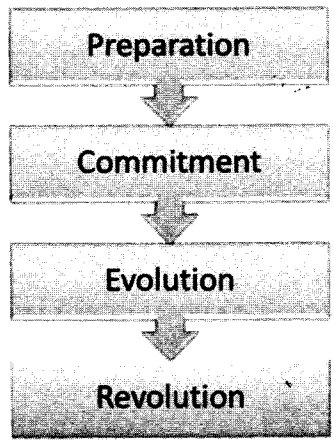
Example 165 (W)

White has sacrificed a piece to get an attack against the black king, but Black has just played ...Qa3-e3 and can meet all threats against his king by intercepting on h6.

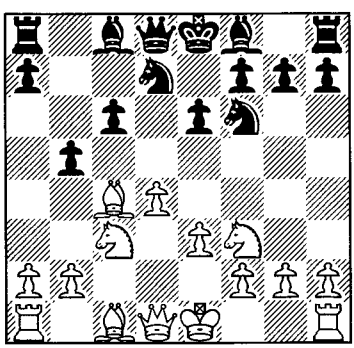
Instead, White bailed out and regained most of his material by 1 Bd3+ Qh6 2 fxg7+ Kxg7 3 Qg4+ Kh8 4 Bxa6.

Phases

An attack usually moves through different phases:



The first one, the preparation phase, is non-committal. The moves you make are aimed partially towards the enemy king, but maybe just as much towards the centre. Of course, the centre is an excellent springboard to either flank, and controlling the centre is still a good way of restricting your opponent's space and freedom of movement. At this stage, you can discontinue the attack at any time.



Example 166 (W)

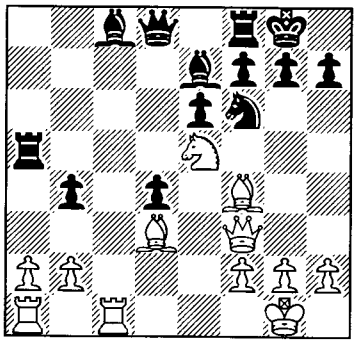
J.Capablanca-G.Levenfish, Moscow 1935

With 1 Bd3, White aimed the bishop at the future location of the black king. After 1...a6 White followed up with 2 e4 c5 3 e5, controlling the centre and putting pressure on the important defending knight.

The preparation continued with 3...cxd4 4 Nxb5 Nxe5 5 Nxe5 axb5 6 Qf3 Ra5 7 0-0 b4 8 Bf4 Be7 9 Rfc1 0-0.

When you think you have reached the point of no, or at least little, return, which is when you feel you have to start decentralizing your forces in order to continue the

attack, take some time to evaluate the risks and the potential for success. This is something you should always do before making a commitment, be it an attack, a sacrifice, a creation of an imbalance, castling, or a simplification into an endgame.



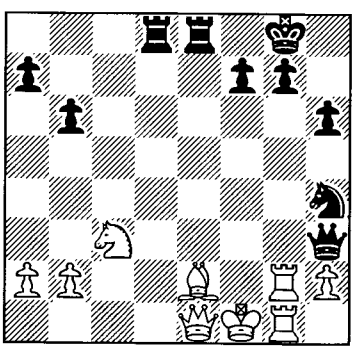
Example 167 (W)

J.Capablanca-G.Levenfish, Moscow 1935

Continuing from the previous example, with 1 Qh3 White starts to decentralize his forces and continues with 1...Rc5 2 Rxc5 Bxc5 3 Bg5 h6 4 Ng4.

The game ended after 4...Be7 5 Bxf6 gxf6 6 Nxh6+ Kg7 7 Qg4+ Kh8 8 Qh5 Kg7 9 Nxf7 Rh8 10 Qg6+, when Black resigned.

If you decide to go for the attack, start building it by identifying weaknesses and accumulating pressure by decentralizing and focusing your forces. This is the building or evolutionary phase, and you can continue to build up the pressure as long as you feel your power is increasing faster than your opponent is able to bring in defences.



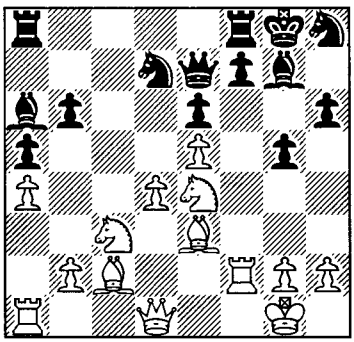
Example 168 (B)

E.Magerramov-G.Kasparov, Baku 1977

Black built up the pressure until White was totally helpless, by 1...Rd3 2 Qf2 Nf3 3 Rh1 Rde3 4 Rhg1 Kh8 5 Rh1 b5. White resigned, since on 6 a3 there follows 6...a5 followed by ...b4.

Sometimes the opponent reaches a point where no further defences can be brought in and he cannot really improve his position. He can do nothing but wait for you. The consequence of this is that you can continue building up the pressure until it is maximized, so you will have the best conditions possible before releasing it. It is a common mistake to release the pressure too quickly.

Sooner or later it is time to release some of the pressure and cash it in for some form of breakthrough. In its simplest and least committal form this can be a piece exchange or a pawn break, but often it takes the form of a sacrifice. This is the breakthrough or revolutionary phase, and the true point of no return.



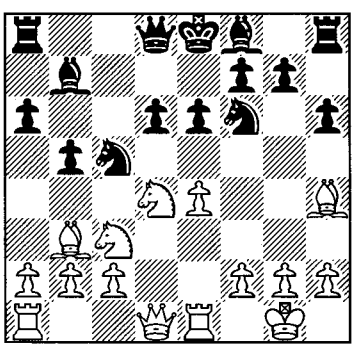
Example 169 (W)

G.Kasparov-S.Palatnik, Daugavpils 1978

White broke through by 1 Bxg5! hxg5 2 Qh5 f5 3 Nxg5 Rf7 4 Bxf5 Rxf5 5 Rxf5 exf5 6 Nd5 Qe8 7 Qh7+ Kf8 8 Qxf5+Kg8 9 Qh7+ Kf8 10 Ra3 Rc8 11 Rf3+ Nf6 12 h3 Qg6 13 Rxf6+ Bxf6 14 Ne6+ Ke8 15 Nxf6+, and Black resigned.

It is important to know that you don't have to go through all these phases. Sometimes you feel you have enough to commit to decentralizing your pieces right away, or you might even feel this is the only way you can start the attack. Sometimes you get an opportunity to strike out of nothing, starting the whole attack with an immediate sacrifice. There are plenty of stock sacrifices for starting attacks.

A common misunderstanding is that once you have started the revolution, you have no alternative but to push the attack by forcing events all the way to its conclusion. This is not always true, even though you have raised the odds by starting the revolution. Often an attack can start with a sacrifice and continue with a new build-up, maybe followed by a second sacrifice and a second build-up.



Example 170 (W)

R.Fischer-J.Rubinetti, Palma de Mallorca 1970

After the initial sacrifice 1 Bd5 exd5 2 exd5+ Kd7, White creates a long-lasting initiative and builds up more pressure before trying to break through by force.

Play continued 3 b4 Na4 4 Nxa4 bxa4 5 c4 Kc8 6 Qxa4 Qd7 7 Qb3 g5 8 Bg3 Nh5 9 c5 dxc5 10 bxc5 Qxd5 11 Re8+ Kd7 12 Qa4+ Bc6 13 Nxc6 and Black resigned.

Breakthrough

It is unusual for the attack to go from build-up straight to checkmate. There is almost always a point where you need to break through the defences to get to the king, and even when this is not strictly needed, it is often the fastest way to reach the destination.

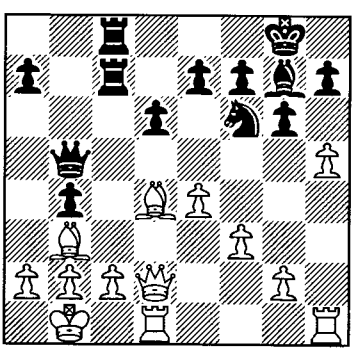
The main characteristic of a breakthrough is that it changes the nature of the position. It opens up other weaknesses, probably not covered by the defending forces, which is why it often leads to quick wins. It is like all dams burst and there is nothing stopping the flood.

But a breakthrough can also leave you without knowing how the end will appear. The important thing is that you believe the position you reach is more promising than the one you left. Your breakthrough may leave your opponent confined to the corner without any pawn cover, or put a monstrous pawn wedge into the king position, leaving the opponent defenceless. You believe in the breakthrough and are committed to finding the right path.

Opening Lines

One of the most efficient ways to break into a position is by opening lines. Lines are opened by exchanges or sacrifices of pawns or pieces, and they can be directed directly towards the king and its weakest point, or they can be opened to cut off the king's escape.

A common example is the opening of the h-file for the queen and one of the rooks, which is almost impossible to meet unless you have an intact pawn chain that cannot be broken up by pawn breaks or piece sacrifices.

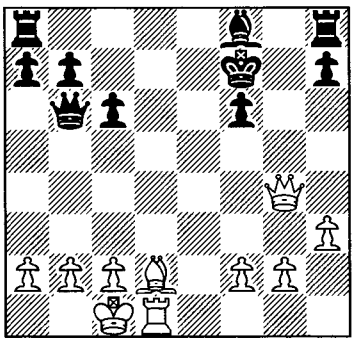


Example 171 (W)

R.Fischer-B.Larsen, Portoroz 1958

With 1 hxg6 hxg6, White opened the h-file for his forces. Play continued 2 g4 a5 3 g5 Nh5 (3...Ne8 4 Bxg7 Nxg7 5 Rh6 e6 6 Qh2 Nh5 7 Bxe6 fxe6 8 Rxg6+ Ng7 9 Rh1 wins) 4 Rxh5 gxh5 5 g6 e5 6 gxf7+ Kf8 7 Be3 and the White attack soon came crashing through.

But diagonals can be equally strong if the defences are in disarray. Many kings have met their fate because of long-distance checks on the a2-g8 diagonal, which can sometimes come as a bolt from a clear sky.



Example 172 (W)

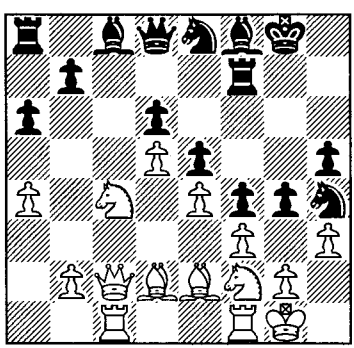
White wins by using the a2-g8 diagonal: 1 Qc4+ Kg6 (if 1...Kg7, then 2 Be3 Qb4 3 Rd7+ Kg6 4 Qf7+ Kf5 5 g4+ Ke4 6 Qxf6, or 2...Qc7 3 Qg4+ Kf7 4 Rd7+) 2 Qe4+ Kf7 3 Ba5 Qc5 (or 3...Bh6+ 4 Kb1 Rad8 5 Qc4+ Kg6 6 Qg4+ Bg5 7 Bxb6) 4 Rd7+ Be7 5 Bb4 Qg5+ 6 f4, etc.

If there is any way you can open up lines towards the enemy king, do it. When the king is stuck in the centre, it is the obvious and truly efficient way to continue the attack, but it is also one of the most powerful tools to get to a castled king.

Pawn Breaks

The obvious way to open a line is to exchange pawns in front of it. This can be as powerful as it is simple. Advance your pawns towards any opponent pawn "hooks", because once you exchange that pawn, it breaks up the position.

Pawns are of course the cheapest material to sacrifice, even if a pawn on the right square can be very powerful. This means you can and should use pawns to break up the enemy defences, even if it means sacrificing them. It is important that by sacrificing a pawn, you either open up lines or break up the king's cover. A common mistake is to sacrifice a pawn only to find that it actually helps the opponent.



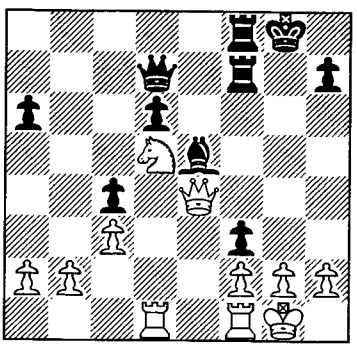
Example 173 (W)

Black has launched all his kingside pawns towards the white king.

After 1 hxg4 hxg4 2 fxg4 Rh7 3 a5 f3 4 gxf3 Ng6 Black has sacrificed his pawns but has good chances along the h-file and on the weak dark-squared complex.

Pawns are especially important when you and your opponent have castled on opposite sides, since the typical and usually the most efficient way to attack is by launching a pawn storm, advancing the flank pawns all the way to the king's pawn cover and breaking it up piece by piece. When doing so, you should again choose and latch onto pawn "hooks". Remember that a pawn defence in front of the king is strongest when none of the pawns have moved.

A pawn can also become a wedge in the enemy position, untouchable and controlling vital squares close to the king. You usually get a wedge either by exchanging or sacrificing a piece, or by advancing the pawn all the way, just to find your opponent advancing his pawn to avoid a trade when you get there. An example would be advancing the f-pawn all the way to f6 and the opponent answering with ...g6.



Example 174 (W)

Black has just played 1...f3. White answered with 2 g3, but the pawn wedge proved decisive after 2...Qh3 3 Ne3 Rf4! 4 gxf4 Bxf4. White cannot avoid checkmate without losing material.

Piece Breaks

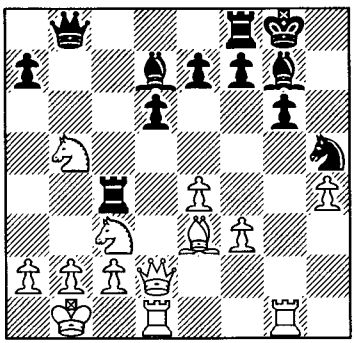
By piece breaks we usually mean piece sacrifices. Piece sacrifices can be of three different types:

- The piece captures a protected pawn
- The piece is placed so it can be captured
- The piece is exchanged for a lesser piece

The first type is probably the first one we think of when we consider sacrifices. The purpose is usually to remove one of the defending pawns in front of the king. Sometimes the piece is captured by another piece and sometimes by a pawn, and sometimes that piece or pawn is in turned captured. In either case, the sacrifice

has created new weaknesses in the form of weakened squares and possibly opened files.

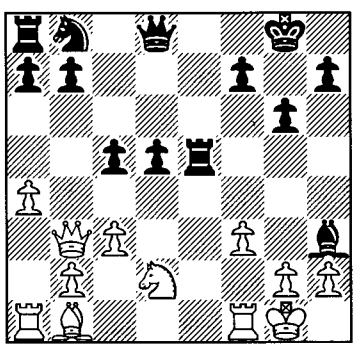
The whole point of the sacrifice is of course to gain something for the piece, so you should carefully note what new weaknesses have been created and figure out how best to utilize them in your attack. Place your pieces on the created weakened squares and aim your long-range pieces into the created gaps.



Example 175 (W)

Black seems to have the White attack under control, but after 1 Rxg6! Bxb5 (if 1...fxg6 then 2 Qd5+ Kh7 3 Qxc4) 2 Rxg7+ Nxg7 (after 2...Kxg7 3 Bd4+ f6 4 Qg5+ Kf7 5 Qxh5+ Ke6 6 Nxb5 White wins even more material) 3 Rg1 f6 4 Bh6 Rf7 5 Qg2 Qf8 (5...Kf8 6 Bxg7+ Ke8 7 Bh6 wins) 6 Nxb5, Black's position falls apart.

The second type of sacrifice can often be declined, but if the sacrifice is well planned, the piece can safely be left where it is, which most probably is closer to the enemy king than before it moved, meaning it is exerting more power. Sooner or later your opponent will have to accept the sacrifice.



Example 176 (W)

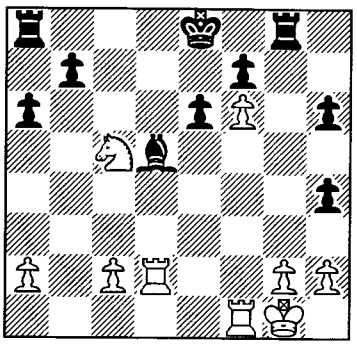
Black has just played 1...Bc8-h3, but White cannot accept the sacrifice because of 2 gxh3 Qg5+ 3 Kh1 Re2 4 Rg1 Qxd2.

However, after 2 Qxb7 Black can safely leave the bishop on h3 and play 2...Nd7 3 f4 Re2.

Depending on the position, this kind of sacrifice can be a little more risky, not only because it can be declined, but because you don't necessarily get even a pawn for the piece. You should be very sure about the positives you gain from the sacrifice before executing it.

In this category there also falls the decoy sacrifice. This is used quite often in the mating attack, to lure the king to the mating square.

The third type is when you either capture a lesser piece, or place or leave your piece to be captured by a lesser piece. In either case, the positive effects of the sacrifice can easily outweigh the negatives, especially since you at least have as many pieces left as your opponent. And as we know, "bigger" is not necessarily "more powerful" in an attack.



Example 177 (W)

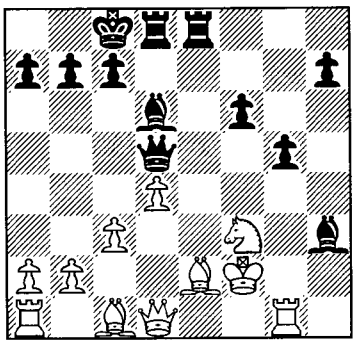
Black has just played ...Bc6-d5, believing that the last remnants of White's attacking efforts were finally put to rest.

But White opened up the roads to the black king again by 1 Rxd5 exd5 2 Re1+ Kd8 (2...Kf8 is met by 3 Nd7 mate) 3 Re7 b6 4 Nb7+ Kc8 5 Nd6+ Kd8 (5...Kb8 6 Rb7 is again mate) 6 Nxf7+ Kc8 7 Ne5 d4 (after 7...Kd8 8 Nc6+ Kc8 9 f7 Rf8 10 Kf2 Black is literally paralysed) 8 f7 Rf8 9 Ng6 Kd8 10 Rb7 Kc8 11 Nxf8 Kxb7 12 Ne6 followed by 13 f8Q, winning.

What is important is to remember why you sacrificed your piece. You sacrificed it to fuel the attack, and to be consistent this is how you should continue to play. You should be ready to go all the way to make the attack successful and you should be ready to sacrifice even more pieces if it is needed to win.

A common mistake is to regain material as soon as you can. It is natural that we feel inclined to do so, because of course we are nervous about the sacrifice we made, and would feel much more secure after regaining the material. But unless you can do so without slowing down the attack, resist the temptation and look for the best way to continue attacking.

If you are defending after your opponent has sacrificed a piece, evaluate whether the sacrifice was incorrect, in which case you should keep the piece, trust your calculations and reject the attack. Or if you think the sacrifice was justified, look for ways to counter-sacrifice. This is usually the most efficient way to survive a justified sacrifice.



Example 178 (W)

W.Steinitz-E.Lasker, London 1899

Black has sacrificed a bishop and has a strong attack. White tried to save the situation by counter-sacrificing with 1 Bxg5 fxg5 2 Rxg5.

In the end, he still lost after 2...Qe6 3 Qd3 Bf4 4 Rh1 Bxg5 5 Nxg5 Qf6+ 6 Bf3 Bf5 7 Nxh7 Qg6, etc.

Typical Attacks

As with any other aspect of chess, pattern recognition is paramount in attacking play. There are so many attacking patterns repeated, game after game, in modern chess – too many to try listing them all in this book.

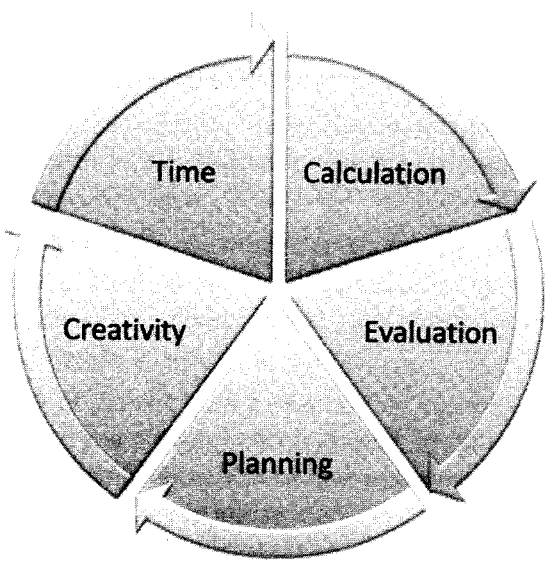
You will need to build a knowledge base of typical attacking patterns by studying attacking games and make an extra effort to identify the typical mechanisms to use, and in what kind of position to use them. Pay attention to what the prerequisites are and what makes the attack successful or not.

I recommend you keep a list of the most common and successful attacking patterns you identify, study them and play games using them regularly, and add further patterns once you feel you have mastered those already on your list.

Part Four
Skills

Knowledge alone can only take you part of the way towards your goal of selecting your best move. By just repeating what you know from experience or from studying grandmaster games or theoretical works, you may very well play decent blitz games, but even then you need something more. You need the skills to be able to create something new from that knowledge, and you need the thinking process to govern how to use these skills.

I have identified five distinct skills of particular importance:



Central to being able to create that something is the skill of position **evaluation**. Without being able to evaluate a position, it is impossible to really form any opinion over the strength of a candidate move.

But just evaluating the position resulting from making a candidate move is not enough either. True evaluation can frequently only be achieved by using the skill of **calculation**, where you look several moves into the future and evaluate the end positions of the variations.

In order to guide you in quiet positions and sometimes even in highly tactical positions, you are helped by the skill of **planning**, where you form short- or long-term plans on how to reach your objectives.

And to have enough time to use these skills and to reach a good conclusion, it is vital you have the skill to handle the allotted **time** you have on the clock.

There is also the concept of **creativity**, which is the skill of creating something – be it unusual plans or brilliant moves – from seemingly nothing, sparking magic into a position.

Calculation

Calculation is the skill of calculating variations several moves ahead.

Many people that don't play chess seem to be fascinated by the question of how many moves ahead chess players can see, and how deep they can calculate variations.

But the fact is that stronger players don't necessarily calculate more or deeper than weaker players. Instead they seem to calculate the most relevant variations, sometimes to the extent that they almost immediately know which move is the "best" and they just have to validate it.

Stronger players also seem to know when they have to calculate and when they can select their moves according to other criteria.

To understand this, let us first remember why we do any calculation at all.

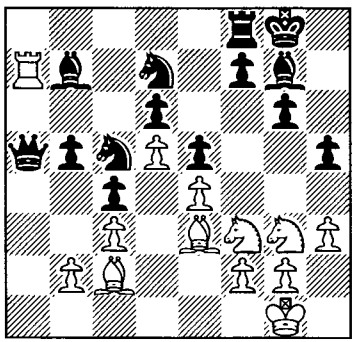
It is not because we always need to see into the future of the game. And as humans, our ability to see far ahead is very limited, no matter how strong we are. So even if we needed to, we could not foresee everything.

But even if we realize this, sometimes our curiosity drives us to want to see all the way. Some of us might even think we should look as far as we possibly can, because then we have seen more than our opponent.

So it is easy to get caught in the fascinating world of calculation, which is why it is so important to remind ourselves that the sole purpose of calculation is to help us evaluate which move is "best".

This means that if there is one move that stands out as clearly better than all others, there is little or even no need to calculate other moves or to try to see all future consequences of the move. Instead, save effort and time and make the move. You only need to make one move at a time.

The greatest risk of making such a move is that you might have missed a severe drawback because you did not look far enough into the future, so verification is always needed. But only to the extent that you are convinced the move is better than any other, or at least not worse.



Example 179 (W)

Black has just captured the white queen on a5. Short of any check or checkmate threat, White has to recapture. 1 Rxa5 is obviously the strongest candidate.

And of course, calculation is not the only way to evaluate a move. A move can easily be evaluated on its own merits, like a mighty knight landing on a strong outpost, or it can be evaluated in accordance with a plan. Hence, many moves can be selected without any calculation at all.

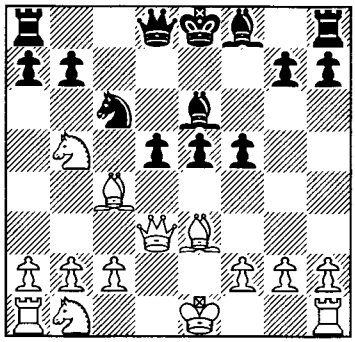
Theory

In theory, calculation is simple. You just start out by looking at all possible moves, then at all possible opponent replies, then at your next possible moves, and so on. You continue this way until one of the players is checkmated or the game is drawn. The move that leads to the best result with best play by both players is selected.

You can visualize this as a tree of variations, where every move is a new branch and the end positions are the leaves. The branch to choose is the one leading to the most valuable leaf.

Of course, this way of brute force calculation is impossible to achieve, even for our silicon monsters, so several shortcuts are needed to come to a conclusion.

Before we look at the shortcuts, I would like to stress the importance of always basing your evaluation on the assumption that your opponent will choose the strongest reply in any position. Never count on your opponent's mistakes. Ever!

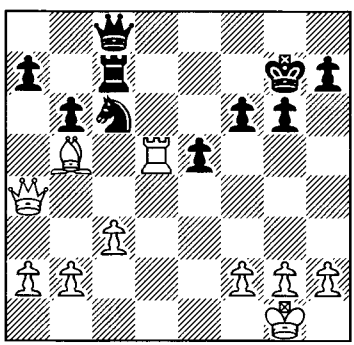


Example 180 (W)

We have already encountered this position when we looked at verification (Example 16).

White saw the combination 1 Bxd5 Bxd5 2 Qxd5 Qxd5 3 Nc7+, but verification revealed the stronger reply 1...Nb4. It would be foolish of White to count on his weaker opponent not to find the refutation.

The first shortcut is to terminate a certain variation when it is possible to make a good evaluation without going deeper. For example, a variation can easily be evaluated when it leads to a position with a substantial material advantage and no counterplay for the opponent, or when no forcing moves exist and the evaluation can be made by weighing up the resulting imbalances.



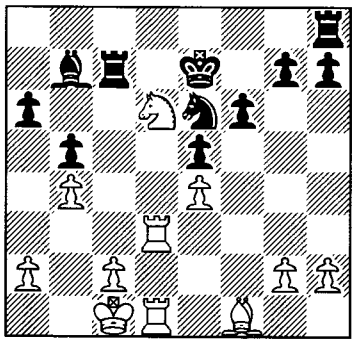
Example 181 (B)

Black, evaluating the branch starting with 1...Ne7 2 Rd7, calculates 2...Rxd7 3 Bxd7 Qc7.

At this point no threats or realistic forcing moves remain, and the variation can be terminated by realizing the position is quiet and level.

The second shortcut is to filter out or prune moves that don't have any potential of being "best". This is not an easy task and is one of the most common ways of missing strong surprising moves, but without this shortcut you will easily drown in variations.

A good way to avoid missing decisive moves is to never discard forcing ones.



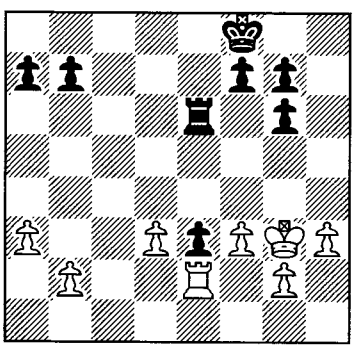
Example 182 (W)

White is looking at the variation 1 Nf5+ Ke8 2 Rd6. When considering the opponent's replies, moves not forcing or not meeting the threat to the knight can immediately be pruned.

After a quick look at 2...Rc6 3 Nxg7+ Nxg7 4 Rd8+, and 2...Kf7 3 Rd7+ Kg6 4 Rxc7 Nxc7 5 Rd7, only 2...Bc8, 2...Nd4, 2...Bxe4 and 2...Nf8 remains as candidate replies.

The third shortcut is discarding moves at the earliest possible moment. If you have evaluated a first option and are now considering a second, and if when looking at your opponent's replies you find one that makes this second option inferior to the one you've already evaluated, then you can discard the second option. There is obviously no reason to look for even stronger replies when you know they will only decrease the value of your move.

This might sound a bit complicated the first time you read it, but most of us do this subconsciously anyway.



Example 183 (W)

White has just calculated the variation 1 f4 Ke7 2 Kf3 Rc6 3 Rxe3+, but is asking himself whether the move 1 Kf4 would be better.

At first 1 Kf4 Ke7 2 Rxe3 looks strong, but when verifying the variation White found that it loses to 2...g5+.

Since this makes 2 Rxe3 inferior to 1 f4, there is no need for White to look for even stronger replies for Black after 2 Rxe3.

The assumption of best play and these three shortcuts are the basis of all classical chess programs and should also be the foundation for human players.

Visualization

Let us return to the reality of the human mind. You have probably heard of how Alexander Kotov in his famous and important books wanted us to calculate the way a computer does, visiting every variation only once and calculating the variations depth-first.

You have also probably heard some of the well-founded criticism of his recommended approach. The human mind needs to revisit variations, especially the main lines, to reach some form of clarity and to apply ideas and moves found in later variations. It is also hard to know how deep to look if you haven't looked whatsoever at the other moves, so depth-first is not an optimal way of calculating.

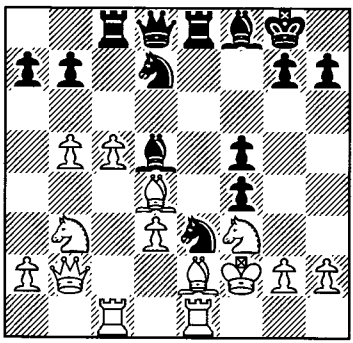
That said, one of the hallmarks of a strong player is that he doesn't have to go all the way back to the beginning for every single variation. If you think of the way you calculate, you will probably find that you often feel the need to restart at move one when you look at a new variation.

If you could instead return to the point of branching and visualize that position, you could start your calculation of that variation at that point, which would save you time and effort.

An aid in doing this is to establish certain fixed positions, or stepping stones, at strategic points in the calculation, and to make a special effort to visualize them. When you start calculating a new sub-variation, you only return to the fixed position, visualize it again, and start calculating.

Apart from sheer speed, visualization is probably the greatest difference between computers and the human mind when it comes to calculation. Computers have perfect visualization, whereas the human mind blurs the picture of the position more and more the deeper you calculate.

Because of this blurred vision, it is often a good idea to try to visualize the main lines very clearly, trying to iron out any errors.



Example 184 (B)

At first the pawn on c5 seems adequately protected, but does Black have something after 1...Nxc5 2 Nxc5 Bxc5 3 Bxc5 Bxf3, based on the check on h4 and the overloaded rook on c1?

Visualize the fixed position after 3...Bxf3 and start looking at variations:

a) 4 Bxf3 Rxc5 5 Rxc5 Qh4+ (another fixed position) 6 Ke2 (if 6 g3 Qxh2+ 7 Bg2 Qxg2 mate, or 6 Kg1 Qxe1 mate) 6...Nc4+ and Black wins the queen.

b) 4 Kxf3 Qd5+ 5 Kxf4 (5 Kf2 Qxg2 mate) 5...g5+ 6 Kxg5 Qxg2+ and there is no way the white king will survive.

Blindfold chess has always fascinated amateurs, and it is astonishing how accurately strong players can play without seeing the board. But when you think of it, it is not at all strange. The ability to play blindfold chess makes use of exactly the same visualization power needed for accurate calculations.

In fact, some grandmasters even perform their calculations not looking at the board, since the board can actually fool the mind into errors when it tries to make sense of what the eyes see and what the mind is trying to visualize.

Needless to say, visualization is necessary for calculation. Without it, we would not be able to look into the future. The stronger your visualization power, the clearer you will see and the more accurate your calculations will be.

Termination

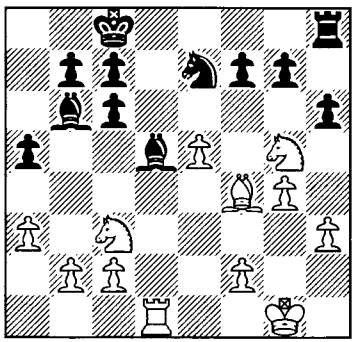
The calculation of a variation can be terminated when the resulting position can be evaluated to a certain extent. How accurately the value of the position has to be determined depends on several factors.

Clear-Cut

The easiest evaluation is the evaluation of a forced checkmate or draw, or a clear-cut material gain in a position with no opponent initiative. In this kind of position,

the only risk is to miscalculate.

You can avoid miscalculation by thorough move verification, but also by following the rule to always look one move further when calculating forced variations. Visualize the end position, when the forced moves you have considered are all executed, and ask yourself what the next move would be. You will be surprised how many games this simple rule will win for you.



Example 185 (W)

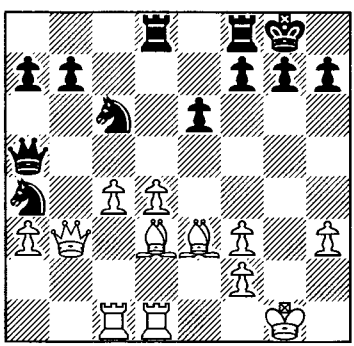
At first sight 1 Nxd5 Nxd5 2 Nxf7 Rf8 looks like a bad variation for White, since Black is threatening two minor pieces and wins one after 3 e6 Nxf4.

But looking just a little bit deeper, it becomes evident that Black actually is lost after 4 e7 Re8 5 Rd8+.

Imbalances

The next straightforward termination is when you reach a position with no more possible forcing moves. You then have to evaluate the position by weighing up the different imbalances, possibly even by evaluating how they can be exploited.

The evaluation might not be simple, but at least the variation can be terminated.



Example 186 (B)

W.Stanka-M.Al Sayed, Oberwart 2002

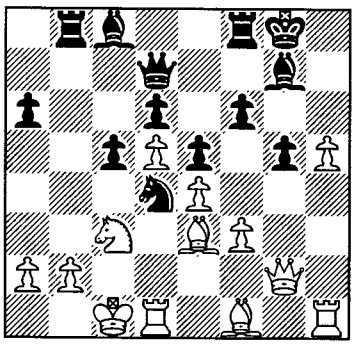
Black is evaluating the deep and highly tactical variation 1...Nxd4 2 Bxd4 Rxd4 3 Bxh7+ Kh8 4 Rxd4 Qg5+ 5 Kh2 Qe5+ 6 Kg2 Qxd4 7 Qxa4 Kxh7.

In the resulting position there are no immediate threats, but White's kingside pawn structure remains broken.

Black evaluated his chances as no less than White's, and evaluated 1...Nxd4 as the strongest continuation.

Worst Case

You can also terminate a variation in a position with an unclear value, if you can see that whatever the true value is, it will not be greater than the value of another variation you have already looked at.



Example 187 (W)

White's candidates are h6, Kb1, Rd2 and Bc4.

After 1 h6 Bh8 it is not obvious what the value is, or even what the best continuation is. But looking at the other candidates, White realizes that they will all be met by 1...Bh6, blocking the vital h-file and thereby the attack.

All these variations can be terminated because 1...Bh6 makes their value less than the value of 1 h6 Bh8.

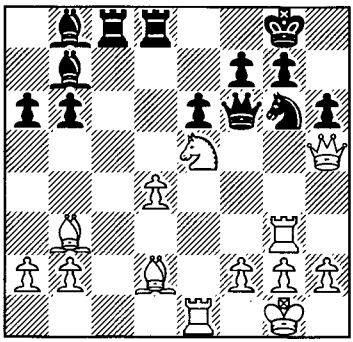
In the same way, you can also terminate in an unclear position if you can see that the minimum value is at least as high as any other variations you have found. Of course, if later on you find another variation with a potential value as high as the earlier position, you might have to revisit that position to try to make a more accurate evaluation.

Expectation

We all have an expectation of the position at hand. We expect it to have a certain value, to be good, bad or even. This expectation, whether subconscious or not, can be used as a minimum value to compare our variations against.

For example, if you think your position is superior, you would terminate all variations as soon as they lead to positions not meeting your expectation, regardless of whether or not you have actually found a variation that does.

This a very common way for strong players to search for the best move, simply because they usually have a very good feel for what they should be able to expect from the position. Many players describe how they "knew" there had to be a winning move in the position, simply because their position was so superior.



Example 188 (W)

N.Riumin-S.Belavenets, Leningrad 1934

White was convinced there had to be a winning continuation and was looking at candidates like 1 Bxh6, 1 Nxg6 and 1 Ng4 followed by 2 Nxh6+.

After evaluating them all without finding the winning continuation, he thought he was wrong and played 1 Bc3. He then faced serious difficulties after 1...Nf4 2 Qg4 h5.

But White's feelings were right! After 1 Nxf7! Qxf7 (1...Bxg3 2 Nxh6+ gxh6 3 Bxe6+ Kf8 4 Bxh6+ Ke7 5 Bxc8+ and 1...Nf4 2 Bxf4 Qxf4 3 Qg6 Qxf7 4 Bxe6 also win for White) 2 Rxg6 Bd5 3 Bxh6 Bxb3 4 Rxg7+, Black is lost.

Of course, the move you think should be there might not exist. This usually means you have spent too much time trying to find it, and may forget to actually find the best move. Disappointed, you risk choosing just about any move.

The correct way, of course, is to stop the search for the elusive move in time, take a deep breath, realize your expectations were too high, and start the usual selection process to find the best move.

Intuition

Many strong players have a well-developed intuition. It is my firm belief that human intuition is little more than subconscious knowledge and condensed wisdom, but whatever it is, it seems to help to shortcut calculations.

It is amazing to realize how few variations some very strong players calculate and still choose the right move, simply because they terminate variations earlier than weaker players would think was possible. Their intuition simply tells them what value a certain position has, or what move has to be right in a certain position.

That said, it is also important to be wise enough to realize when accurate and deep calculation is needed. Be wary of trusting your intuition too much before you have reached a certain strength, because you might confuse it with wishful thinking.

Pruning

Pruning is discarding moves and their variations from your calculation.

Evaluation, termination and pruning are closely related. To terminate we need some form of evaluation of the end position, and to prune a variation you need an early sense of what the evaluation would be.

As we have already concluded, pruning is absolutely necessary not to drown in variations, but it is also the greatest source of miscalculation.

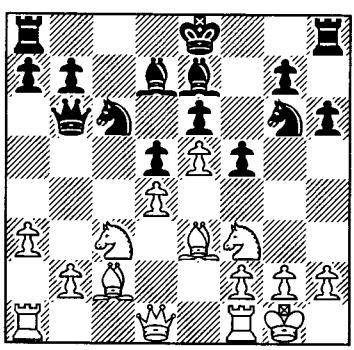
Candidate Value

The usual way to prune variations is to discard candidate moves making no sense, simply because we see no gain from them – they are not improving our position and are not part of any plan. In fact, many of the possible moves in a position would seriously harm us and simply lose.

Which candidates make sense is usually up to our subconscious knowledge, but we should always make sure we do not prematurely discard forcing moves. Always convince yourself they really make no sense.

You might also prune candidates that do make sense, because you have already found a good candidate and you can immediately see that some candidates will not be able to match the value of that candidate.

For example, if you have found a candidate giving you a clear material advantage and a winning position, you might discard all quiet positional moves, even if they make perfect sense and are part of a verified plan, because you know their value will still be less.



Example 189 (W)

White has the obvious positional candidates b4 and Rc1, as well as the more aggressive Na4.

But he also has the unusual blow 1 g4 which, after 1...0-0 2 gxf5 exf5 3 Nxd5 Qd8 4 Bb3, is winning.

It is easy to see that the values of the other candidates do not come close to the value of g4, and they can all safely be pruned.

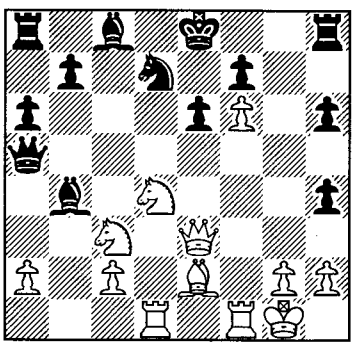
Effort and Uncertainty

Sometimes you will find a candidate move plunges into an abyss of variations, which will take a lot of effort to evaluate accurately.

Whether you should invest the time it takes to calculate all variations, or instead choose another strong move, depends on the time you have left on your clock, how big you think the potential gain is compared to other strong moves and how big you think the risk is.

Obviously, calculating myriads of variations will use up more time than you probably have. So if your time is short, or if the move is not likely to crucially alter the outcome, you either steer clear of the move, or evaluate it using intuition.

The potential gain and the involved risk are also crucial. If the move can lead to a winning position and you have no other move to give you the same advantage, or if it has the potential of saving a lost position, then of course you should try to find out its value.



Example 190 (B)

White has just offered Black the chance to capture the knight on c3, obviously to continue with sacrifices on e6.

If White's sacrifices are incorrect, Black will obviously win, but otherwise a capture on c3 could lose the game. The choice is crucial.

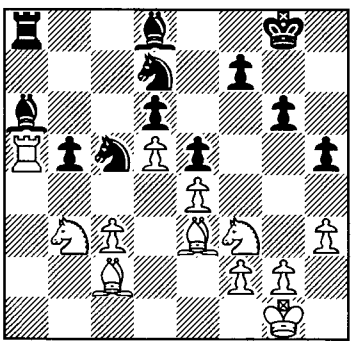
After the painstaking calculation of 1...Bxc3 2 Nxe6 fxe6 3 Qxe6+ Kd8 4 Qe7+ Kc7 5 Qd6+ Kd8 6 f7 Bg7 7 f8Q+ Bxf8 8 Rxf8+ Rxf8 9 Qxf8+ Kc7 10 Qd6+ Kd8 11 Bg4 Qb5 12 h3 Qc6 13 Qf8+ Kc7 14 Bxd7 Bxd7 15 Qxa8 Qxc2 16 Rxd7+ Kxd7 17 Qxb7+, Black decided the outcome is probably a draw, but any chances are White's.

Instead, he played 1...Qg5.

However, if the potential gain is not much greater than that of other moves, moves easier to evaluate, then it might not be worth your time and effort, especially if the outcome is likely to be the same.

For example, if you have reached a winning position after strategically outplaying your opponent, it is probably not a good idea to go down the path of a complex variation, even if the potential value might be high.

The key in a winning position is clarity. If you clearly see the outcome of a forced variation, then by all means choose it. But if you don't, prune the variation and try to find another way to victory.



Example 191 (W)

White has two main candidates, the quiet Ra1 and the tactical Nxc5.

The complications after 1 Nxc5 Bxa5 2 Nxd7 Bxc3 are not clear, even if 3 Bh6 b4 4 Nf6+ looks promising. Basically, 1 Nxc5 is far from clearly winning and will take a lot of effort to calculate correctly.

Evaluating 1 Ra1 as having roughly the same potential value, White saved himself time and effort and chose this simple and good move.

In a losing position, where you know that you will lose if you don't drastically alter events, you should be much more inclined to take risks if the reward might be a saved game. Again, be warned, because too many players show too little patience when having to defend. Defending is not the same as losing, even if it is a bad sign.

Order

One thing many players don't reflect upon is in what order they look at their candidates and in what sequence they calculate their variations.

Many players just start out with the candidate that interests them the most. This is quite natural, since people want to enjoy themselves and strive to satisfy their curiosity. This usually also means they happily dive deep down in interesting variations evolving from that candidate.

Often this is still efficient, since the reason they found the move and the variations interesting is usually because it looks good, at least at first sight. Only if they find the move less satisfying do they consider alternatives. This is very human, but there are more efficient ways.

Highest Potential Value

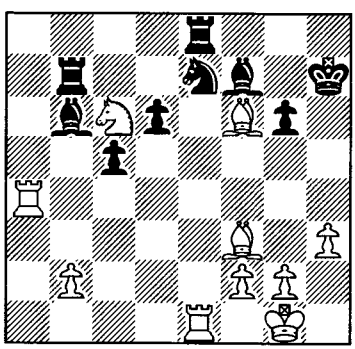
We have already established that efficient pruning and termination rely on comparing a variation's potential value with an already established value for another variation. It is not hard to realize that the higher the first established value is, the more candidates can be pruned and the more variations can be terminated.

This tells us that we should look at the candidate with the highest potential value first. But isn't that impossible? If we already knew which candidate had the highest value, we wouldn't have to calculate. True, but the key is that we are talking about potential, not real. So the better we can guess which candidate has the highest potential value, the more efficient our calculations will be.

Luckily for us, there is one category of moves that almost always has a very high potential value and that is again the forcing moves. The very nature of these moves, forcing the opponent to meet or counter, means they all have the potential of establishing an advantage.

So, again, the first candidate you should look at is the most forcing one. If there are any checks or checkmate threats, look at them first, then look at captures and then at other forcing moves. You might find all of them having a low or even negative value for you, but if any of them bear fruit, you don't have to look much further.

Once you have considered forcing moves, you move on to other options in the order of decreasing highest potential value. This often means now is the time to look at the move you found so interesting.

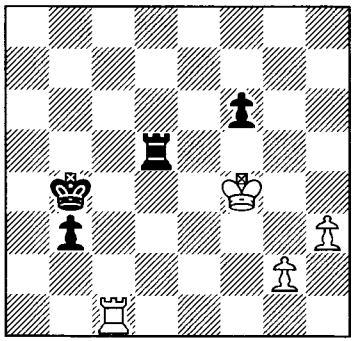


Example 192 (W)

Even though candidates like 1 Nxe7 would win for White, the obviously strongest move 1 Rh4+!, followed by 1...Kg8 2 Rh8 mate, immediately prunes every other variation.

Successive Deepening

Establishing an accurate value for a candidate can take a long time and might involve deep calculation. But do we really want to invest all that effort before we know anything about other candidates?



Example 193 (B)

V.Salov-S.Gligoric, Belgrade 1987

1...b2 is a forcing move and an obvious candidate. But many strong players looking at the position get stuck trying to make this move win. In fact, after 2 Rb1 Kc3 3 g4 Kc2 4 Rxb2+ Kxb2 5 h4 Kc3 6 g5 fxg5+ 7 hxg5, Black cannot win.

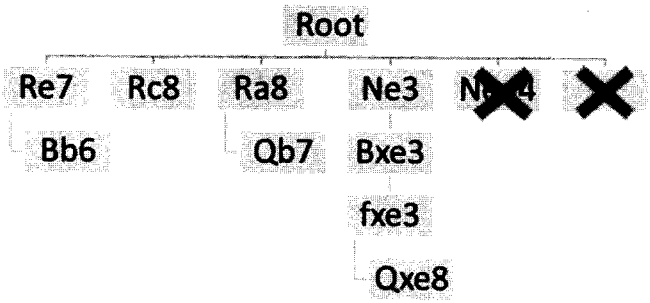
Had they first had a quick look at all candidates, they would have found what Gligoric did, the prophylactic and winning move 1...Rh5!, and probably started analysing it as soon as 1...b2 looked dubious.

The game ended 1...Rh5! 2 Rb1 Kc3 3 Rh1 b2 4 g4 Ra5 5 Rb1 Ra1 6 Rxb2 Kxb2 7 Kf5 Rf1+ 8 Kg6 Kc3 9 h4 Kd4 10 h5 Ke5 11 h6 Rg1 and White resigned.

Say you have a candidate with a decent potential value. Looking two moves ahead, you see it has a firm maximum value, but you are still not certain about its true value. You could go deeper trying to find out more. But what if you instead look at another candidate, possibly with not so high a potential value, and just by looking one move ahead, you realize it actually has a minimal value at least as high as the other candidate's maximum value? Well, obviously you could save yourself a lot of effort if you don't follow the rule of going depth-first.

This is the idea of successive deepening, which is so successfully used by the latest and strongest chess programs.

In its simplest form we probably all already use it, because consciously or subconsciously we discard most moves by either classifying them as pointless or by evaluating their effects in a split second. This first scan is the first level of successive deepening.

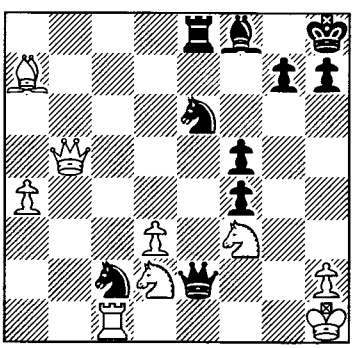


First scan

I am sure you will find that if you follow this first scan by a second level, where you look at the remaining candidates just a bit deeper, you will find your calculations to be more effective as well as more accurate.

After this second level, you are well equipped to try to see the variations to the end, starting with the candidate with the highest potential value.

If the calculations are very complex, and the candidate you are looking at is not standing out as the best one, you might even want to add yet another level, to see far into the future and really establish which candidate is the best.

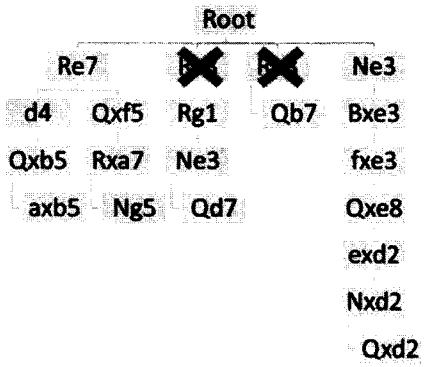


Example 194 (B)

After the first scan, Black decided the possible candidates were, in descending order of possible value, ...Re7, ...Rc8, ...Ra8 and ...Ne3.

He positioned ...Ne3 last, because the shallow variation 1...Ne3 2 Bxe3 fxe3 3 Qxe8, losing the exchange as well as the mating threat on g2, seemed unpromising. Instead he dived deep into the complications of 1...Re7 2 Qxf5 Rxa7 3 Ng5 Qh5 4 Ndf3.

A second scan would have revealed that 1...Ne3 2 Bxe3 fxe3 3 Qxe8 exd2 4 Nxd2 Qxd2 is much more promising and probably winning.

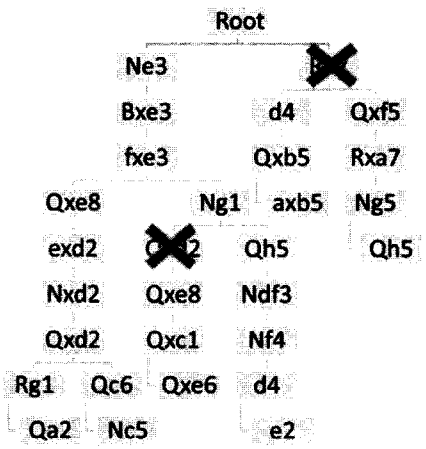


Second scan

Depth First

It is important to point out that even though successive deepening is the most efficient way to sort candidates, the human mind is usually much more comfortable with going depth first. We want to consider one candidate at a time, look at the most likely reply by the opponent and then at the strongest-looking follow-up for us, and so on.

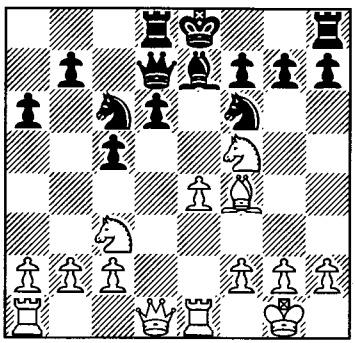
Only when we have reached an end position, where we are reasonably comfortable with the end value, do we trace our steps back and consider other opponent replies, first those closest to our end position and then successively working our way back to the start position, having considered all potential candidates for both ourselves and the opponent.



Depth first

Going depth first is especially effective for humans when it comes to establishing a main variation. This main variation can then be visualized clearly and used as a backbone for the calculations, with shorter variations branching out from it.

The main variation usually contains the moves which are consistent with the idea of the candidate move, for example the motif of a combination, as well as the expected opponent replies. The most important branches off the main variation then become the opponent replies that could potentially shatter this idea. We know this as move verification. Only if such a shattering reply is found do we look for improvements to our own moves.



Example 195 (W)

White is looking at the main branch 1 Nxg7+ Kf8 2 Bh6 Rg8 3 Ne6+ Ke8 4 Nxd8 Kxd8 5 Bf4 Qg4 6 Bg3, which leads to a decisive advantage.

But when verifying the variation, White finds a stronger variation for Black with 4...Qh3 5 g3 Ng4.

Backtracking his steps in the main variation, White finally finds 3 Nf5+ Ke8 4 f4 to be much stronger, preparing 5 Bg5.

Generally, successive deepening and depth first can and should be used together. Use successive deepening for at least a first quick scan, and ideally also for a second shallow evaluation, before establishing a main line and then working your way depth first.

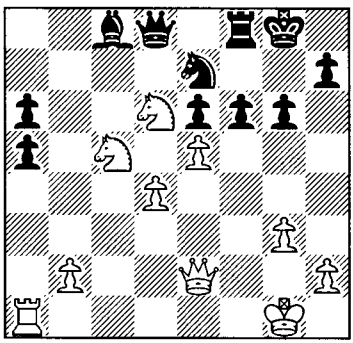
Amendments

In perfect calculation, you wouldn't need to change your variations. But we are far from perfect and during our calculations we often find ideas and moves that we didn't consider in earlier variations, but that are perfectly viable. We then can, and should, revisit the variations affected.

Most of us also revisit the main variations again once we have completed our calculations. If you have the time for this, it might be a good idea, because the second time you look at it you know which moves are part of the main variations and you

can more clearly visualize the variations. This leads to greater accuracy.

A common amendment among strong players comes into play when a promising idea seems to be shattered by something they find during calculation. Instead of just giving up on the idea, they start looking for improvements, for anything preparing the idea, so that it works on their next move.

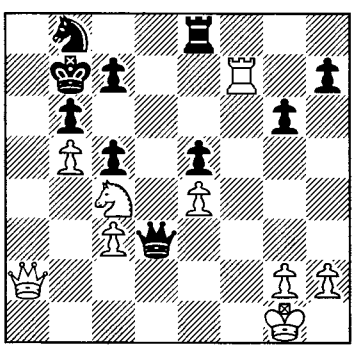


Example 196 (W)

White first looks at 1 Nxc8 Qxc8 2 Rxa5, but realizes Black has the stronger 1...Qxd4+ 2 Qf2 (or 2 Kg2 Rxc8) 2...Qxf2+ 3 Kxf2 fxe5+ 4 Ke3 Rxc8.

Instead, White played 1 Qe4, protecting d4 and threatening 2 Nxc8 followed by 3 Rxa5. The game continued 1...fxe5 2 Nxc8 Qxc8 3 Qxe5.

Yet another way to improve ideas which aren't working is to change the order of the moves that are part of the variation. Often you know which moves you need to make, and usually you have some idea about the move order. But it is not uncommon to find that another move order is much more efficient and can even be crucial for the idea to work. This is especially true when calculating combinations.



Example 197 (W)

White has been looking at 1 Rxc7+ Kxc7 2 Qa7+ Kd8 (if 2...Kc8 3 Nxb6+ Kd8 4 Qxb8+) 3 Qxb8+, but it is not clear if this is winning.

But changing the move order leads to a quick win after 1 Qa7+! Kxa7 2 Rxc7+ Ka8 3 Nxb6 mate.

Evaluation

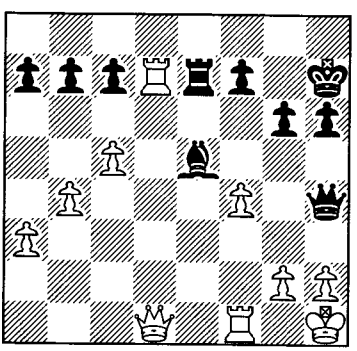
Evaluating a position means estimating some form of value of the position, whether consciously or subconsciously, accurately or within a range.

Dynamic Value

There are several reasons to evaluate a position. The most obvious reason is to put a value on the end position of a variation. This value is also used as the value of the variation. Each of our candidate moves gets the value of the variation chosen with best play from both players.

When we have found a value for all the candidates, or at least know that those candidates we could not accurately evaluate do not have a maximum value greater than the best candidate, we can safely choose the candidate with the highest value as the best move. This is also the value of the start position and is called a dynamic value.

Do not confuse dynamic value with dynamic imbalance. A dynamic value is simply the product of surfacing end position values using calculation.



Example 198 (B)

A static evaluation would just see the extra exchange for White, but the dynamic value is different.

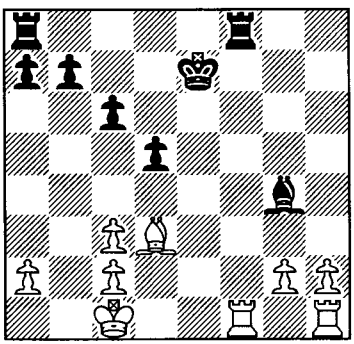
After 1...Bxf4 2 h3 (2 Rxf4 Rxd7 3 Qf1 Qxf4 wins for Black; or 2 g3 Bxg3 3 Rd2 Bf4 with enough compensation) 3 Qg3 3 Kg1 (3 Rxf4 Rxd7 4 Qxd7 Qxf4 is advantageous for Black) Qh2+ 4 Kf2 Qg3+ 5 Kg1 Qh2+ it is evident that the dynamic value is a draw.

Static Value

However, when the end position is evaluated, we actually perform a static evaluation. That is, we evaluate the position without any calculation. To be able to do

this, we analyse imbalances, consciously or subconsciously, weigh them against each other, sum the values, and come up with a total value of the position.

Often one or a few of the imbalances easily outweigh the others and more or less become the value of the position. This is of course the case when the position is a known win or draw, but also when we reach a quiet position where one of the players has a substantial material advantage or a crushing attack.



Example 199 (W)

No special tactics exist in this position. White concluded that he had a lasting advantage, evaluating his extra pawn and his connected passed pawns as more valuable than his broken pawn chain and doubled pawns.

The static evaluation is also used to evaluate start positions. This is usually done in quiet positions, when there are few and only weak forced moves. In these positions calculations are futile, since there are usually too many viable candidates to choose from, both for you and for your opponent.

To get a true static value it is usually not enough just to analyse the different imbalances. It is also necessary to evaluate how they can be exploited. In a sense, this too is a kind of dynamic value in that the plan to exploit the main imbalances involves visualizing a future. But let us call all values not based on calculation "static".

Expectation

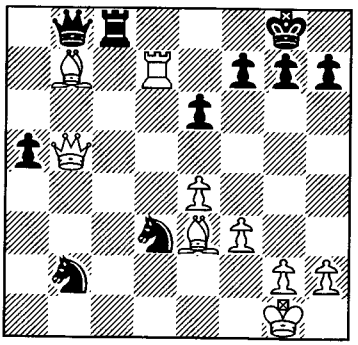
The value of the start position, whether static or dynamic, is used to set expectations. As discussed earlier, expectations can be a help when pruning variations.

It is also important for us to know when the position demands attack and when it demands defence. Accurate evaluations, leading to realistic expectations, help us realize and focus on what we need to do. This way we can start looking for a suitable plan and for candidate moves meeting our expectations.

Your expectations are also one of your biggest enemies, since in many positions you don't expect any lethal combinations. And yet they always arise, even in the quietest of positions. The danger is that they arise and disappear suddenly, and

often when you least expect it.

There are numerous examples, not only of games lost because of this, but also of games where both players miss a winning combination, simply because neither of them expected it.



Example 200 (B)

W.Fairhurst-S.Reshevsky, Hastings 1937

These two very strong players both expected White's initiative to be the only important factor, and completely neglected to look at Black's possibilities.

The game saw 1...h6 2 Qh5 Rf8, but Black missed not one but two opportunities to play 1...Rc1+! 2 Bxc1 Qa7+ 3 Kh1 Nf2+ 4 Kg1 Nh3+ 5 Kh1 Qg1 mate.

By now you should hopefully be tired of hearing me warn you about forgetting forcing moves. If you are, I have succeeded in the most important lesson in this whole book.

Uncertainty

Of course, obtaining a true value of a position is only possible if it is clearly winning, losing or drawn. There is little to say about these evaluations, since they are absolute. The only question is how a player should react when realizing a position has such a value.

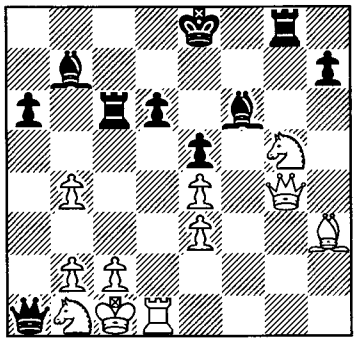
For the player with the winning position, or for the player content with a clear draw, the most important thing is to not allow any surprises. This is accomplished through great accuracy and by not allowing any counterplay.

For the player with the losing position, or for the player needing or seriously wanting more than a draw, the most important thing is instead to create dynamism, imbalances and counterplay, to complicate the position and to set cunning traps.

But in most positions, we can only estimate the true value of the position. Sometimes we can be confident this estimate is as close to the true value as we need to serve our purpose, but sometimes, even after extensive calculation and thorough analysis of the imbalances, we are at a loss.

Even then, often we don't really need to know the true value, but only the minimum and maximum possible values. For example, if a candidate has a minimum

possible value greater than the maximum possible value of another candidate, it is still clear the first candidate is preferable.



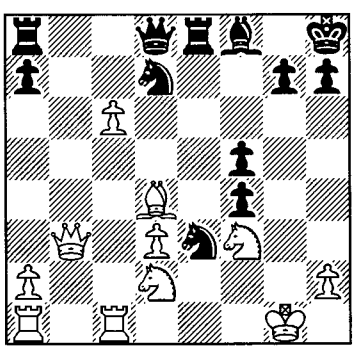
Example 201 (B)

Black's situation is serious. Both 1...Bc8 2 Qh5+ Kd8 3 Qf7 Re8 4 Qxf6+ and 1...Rxg5 2 Qe6+ Be7 3 Qd7+ Kf8 4 Rf1+ Kg7 5 Qxe7+ are clearly losing.

Black's best chance is the blow 1...Rxc2+ which still might lose, but might also save the game after 2 Kxc2 Qa4+ followed by ...Rxg5, since now d7 is protected. Black does not need to know whether this move is enough for equality, since all other moves lose.

The defence was not enough: 3 Kd2 Rxg5 4 Qe6+ Be7 5 Nc3 Qc6 6 Nd5 Rg7 7 Nxe7 Rxe7 8 Qg8 mate.

Minimum possible value is usually the value a candidate has in a worst-case scenario, which is usually the resulting value should your combination, attack or other plan fail. Maximum possible value is usually the potential value a candidate has if everything works out.



Example 202 (B)

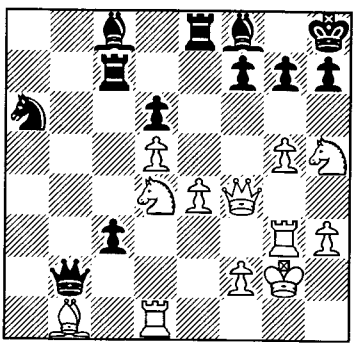
At first Black thinks he has to play 1...Nb6, but then he starts to examine 1...Nc5 2 Bxc5 Bxc5 3 Rxc5 and the possibility of a double attack by 3...Qf6.

Clearly, the minimum value (the worst-case scenario) is that Black loses a piece, whereas the maximum value is to win the exchange if the double attack holds.

It turns out that 3...Qf6 wins after 4 Rb1 (or 4 Kh1 Qxa1+) 4...Qg6+ 5 Kf2 Qg2+ 6 Ke1 Qh1+ 7 Ke2 Ng4+ 8 Re5 Qg2+ 9 Kd1 Nxe5.

A really difficult situation occurs when the minimum value is clearly less than that of other candidates, but the maximum value is also considerably higher. This is the case with most intuitive sacrifices, but is also not uncommon in many other, usually highly dynamic, situations.

Some players rely heavily on intuition to evaluate candidates like this, but usually the candidate is chosen after careful consideration of the risk involved, how big the potential gain is, and how badly the player wants or needs the outcome.



Example 203 (W)

V.Anand-V.Bologan, New Delhi/Teheran 2000

With his passed pawn and aggressive play on the queenside, Black seems to have a small edge.

To wrest the initiative, White played 1 Nf6, the true value of which is hard to see. The minimum value is realized if the piece sacrifice turns out to be faulty, but the maximum value is very high, with an attack crashing through.

Black wisely turned down the sacrifice, since 1...gxf6 2 gxf6 h6 3 Ne6 would have won for White (3...fxe6 4 f7).

Planning

We have already stated that you need some form of plan to direct your moves. The reason for this is that a move should make sense not only by itself, but also together with the moves before and after. Your moves will become much stronger if they have a common purpose and a common direction.
One might argue that if you look several moves ahead and select the move leading to the most promising position, the moves of that variation do work together to reach that position and can therefore be called a plan. This is absolutely correct and is in fact the reason the silicon monsters nowadays can outplay us all without having much of a formalized plan.

But the human mind finds it difficult to look at too many alternatives, and to prune the myriads of variations we need something to direct our choices towards a goal.

Of course it is important to know why you select a move and that reason is part of at least a simplified plan. If you capture a piece to win material, the plan, or rather the objective, is to win material, and if you mobilize your pieces to their best squares, your plan might be development and board control. You just haven't put the plan into words.

This subconscious planning is the reason for including the imbalances and their treatment in the knowledge section of this book, and why it is so important to know the overall plans of your openings and the common plans in their variations. This way, simple plans become an integral part of your selection.

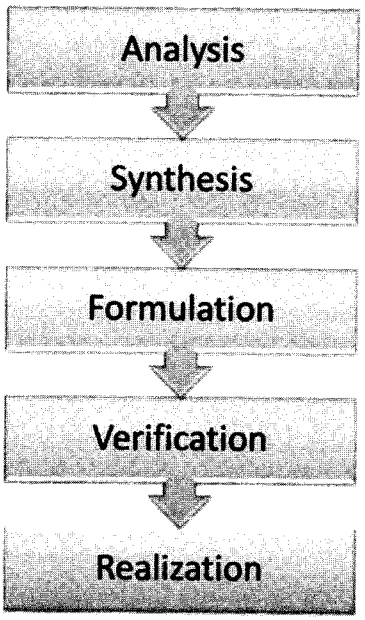
But knowledge only takes you so far. You need to be able to formulate a plan of your own and that plan has to meet the demands of the position.

Planning is especially important in the endgame, since it is almost impossible to play it well without constantly following a plan. This is because tactics play a lesser role in endgames, and because most manoeuvres take several moves to execute.

It is crucial to realize that since a plan needs to meet the demands of the position, it has to change whenever the position demands a change. For this very reason, it is common in contemporary chess to have quite short plans, constantly evolving depending on the opponent's choices.

There is a reason why so many grandmaster examples of long-term plans are from many years ago. Nowadays opponents are much less likely to allow you to follow a plan through unopposed, and therefore you will most probably have to change it or amend it at some point.

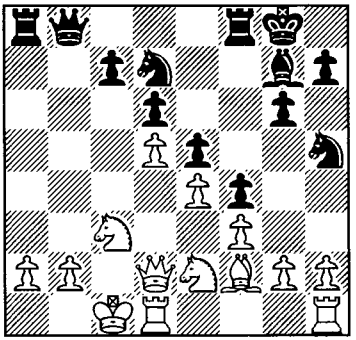
Creating a full plan normally involves the following steps:



Analysis

To meet the demands of the position, you need to understand the position. The first step of planning is to analyse the specifics of the position. Especially important in this analysis is the understanding of imbalances.

You need to recognize and identify which imbalances are present and how prominent they are in the position. Knowing your imbalances also gives you a hint of how they should be treated to work in your favour. For example, a backward pawn can be fixed and the square in front of it can be used as an outpost. If the pawn is on a half-open file, it is also vulnerable to a heavy piece build-up on the file.



Example 204 (W)

Black has sacrificed a pawn to open up lines towards the white king, leaving White with a passed pawn on the a-file.

The most important imbalances are the potential attack along the open lines and the long-term potential of the passed pawn.

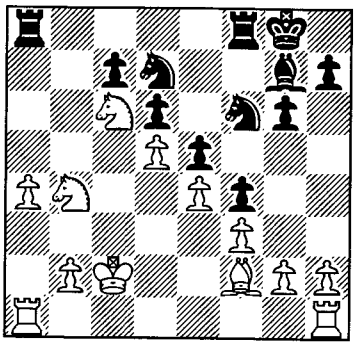
The goal of your analysis is to decide which imbalances are the dominating ones. They usually coincide with the greatest weaknesses in the enemy camp, or in your own camp if you are on the defence.

Synthesis

From the dominating imbalances you then synthesize your objective, so that you can direct your forces towards a common purpose. If the dominating imbalance is the weakness of a backward pawn, your objective might be to attack and win the pawn, or it might be to control and occupy the weak square in front of it. Continuing Example 204, White decided the objective was to simplify into an end-game, where the attack is negligible and the passed pawn is a winning advantage.

Formulation

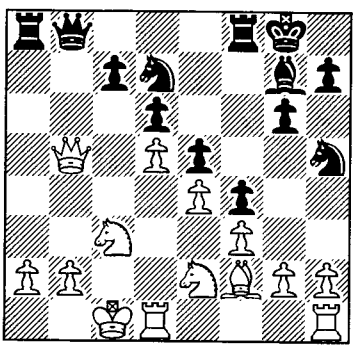
It is only when you have a clear objective that you can start formulating an actual plan to achieve it. The formulation of a plan ideally starts by imagining the position you would like to achieve. This position is the final position where you have or are just about to realize your objective.



Example 205

Continuing from Example 204, White imagines his ideal position, where the queens are exchanged, the weak c6-square occupied, and the a-pawn cannot be stopped until it is deep into the enemy camp.

Once you know the position you would like to achieve, you should look at what moves can make it come true. At this point it is not too important to figure out in what order to play the moves, or which moves the opponent will play during that time. Of course, obvious opponent moves like recaptures would have to be taken into account.



Example 206

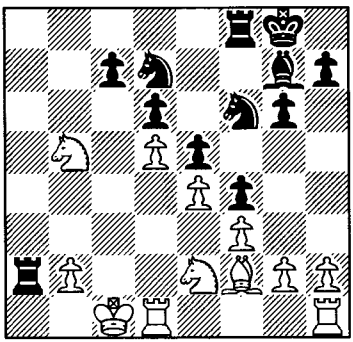
Continuing from Example 205, to reach the ideal position White first needs to exchange queens. The simplest way to offer the exchange is by Q(d2)-d3-b5. If Black avoids the exchange, the white queen will instead become a powerhouse on the queenside.

Once the queens are exchanged, the moves Nb5-a7-c6 would form part of the plan, as would Kc2, Ra1 and a4.

Verification

In the same way you have to verify a selected move during move selection, your formulated plan needs to be verified for soundness. This means you have to look for ways your opponent can stop its implementation. It doesn't matter whether he can stop it by passive defence, by counter-attacking or by tactical means.

But in the same way you don't give up on a move during move verification without trying to improve on the variations, you should not give up on your formulated plan without first asking yourself whether there is a way to improve it.



Example 207

Continuing from Example 206, it becomes apparent that White's plan to exchange the queens without delay can be met by ...Rxa2 once the knight on c3 recaptures the queen on b5.

But White does not want to give Black too many chances of ruining the plan by ...Ra5 or ...Qb4 followed by ...Rfb8.

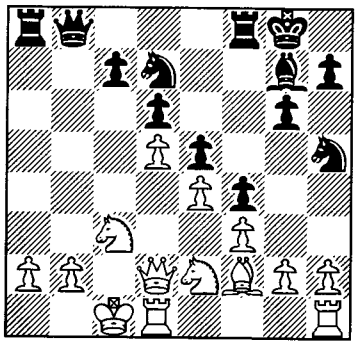
Looking at the position after ...Rxa2, White can switch his objective to dominating the queenside and pressuring the weak pawn on c7. It is obvious that Black will have problems after Nec3, Kc2 and Ra1.

It is important to realize the difference between plan verification and move verification. The verification of a formulated plan is primarily about looking for ways for your opponent to prove that your plan is unsound, whereas move verification is primarily about looking for tactical refutations or surprising replies from the opponent.

Realization

When your plan has been successfully verified, it is ready for realization. While planning is primarily done during the move preparation (the Prepare step), the actual realization is done as part of the move selection and move verification processes.

The formulated plan and the plan verification is vital input to this process, simply suggesting moves that should be part of selection and verification. Realization is all about proving the viability of the chosen plan by calculating concrete variations and visualizing concrete end positions.



Example 208 (W)

White's obvious main candidate is 1 Qd3, with the main variation 1...Nhf6 2 Qb5 Qxb5 3 Nxb5 Rxa2 4 Nec3 Ra1+ 5 Kc2 Rxd1 6 Rxd1 Rc8 7 Ra1, and it is clear that White is dominating the position.

An alternative candidate, protecting the a-pawn, is 1 Kb1, but this gives Black the opportunity 1...Qb4 2 Qd3 Rfb8.

After 1 Qd3, 1...Qb4 can still be answered by 2 Qb5. Black could avoid the exchange by 1...Ra5, but after 2 Qc4 the white queen enters the battlefield with force, creating possibilities like b4 and Qc6.

White chose 1 Qd3.

Creativity

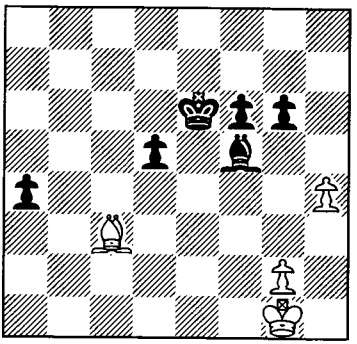
I was first uncertain whether I should include creativity as a central skill, especially since I am convinced the closely related concept of intuition is mainly just subconscious knowledge.
But creativity definitely plays an important part in chess, and there are plenty of examples of creative ideas that would be very hard indeed, if not impossible, to come up with by just using rational thinking and conscious or subconscious knowledge.

That said, if intuition can be acquired from experience and knowledge, pure creativity is much harder to define and also to acquire or train. I can only urge you to always keep an open mind and to actively try to create new and unique patterns in your play. I do think creativity can be acquired, but only by active choice, and only by breaking free from accepted rules and stereotyped patterns.

There are many ways of increasing your creativity and your lateral thinking outside of chess. Numerous books and training courses are available on the subject, usually concentrating either on business or personal development. Acquiring a creative attitude and thinking outside of the box will help you in all areas where creativity is essential, and chess is no exception.

There should be a balance between using the patterns in your knowledge base to build up your understanding on one side, and breaking away from stereotypes and having a completely open mind towards new ideas on the other. We must not forget the extremely important part that pattern recognition plays in chess, and throwing it away for the sake of an open mind will more often than not prove disastrous.

Creativity in chess can take many forms. The most obvious creativity is when you suddenly and for no obvious reason start looking at a candidate move that you or most people would immediately dismiss as bad. Of course, by scanning all moves during the selection, you would see the move, but you would normally not look any further.



Example 209 (B)

V.Topalov-A.Shirov, Linares 1988

After analysing the position for a long time, Black realized that all normal continuations lead to a draw, since the white king reaches e3, for example 1...Be4 2 g3 Kf5 3 Kf2.

He continued with the truly remarkable 1...Bh3! and after 2 gxh3 (2 Kf2 Kf5 3 Ke3 Bxg2 is no better) 2...Kf5 3 Kf2 Ke4, the black king was suddenly in a position to help the pawns in their pursuit for promotion.

The game ended 4 Bxf6 d4 5 Be7 Kd3 6 Bc5 Kc4 7 Be7 Kb3 and White resigned.

This kind of creativity is usually triggered by a hidden and subconscious pattern, or by a creative idea of an unusual plan or combination.

It is only natural that creativity is not only close to intuition, but also the sort of rule independence some theorists and authors describe in modern chess. The basic idea is that yes, patterns and rules are good suggestions to you during selection, but never let them rule you. Your best move or plan might very well seem to contradict some of them. Always be open to ideas that seem suspicious or even bad at first sight.

So let your open mind inspire you to look at unusual ideas and moves, but always let calculation be the final judge of your creativity. Or if the position is too complex to calculate, let your intuition guide you.

Creativity will take your play to new levels, but without thorough analysis of its consequences, it serves you badly.

Time

There are ultimately only two ways to lose a game (if we don't count tournament rules like losing if your mobile phone rings). The obvious way is the whole purpose of the game. If we are checkmated, or if we resign because we see no way of avoiding checkmate, the game is lost.

But the second way is just as much a part of modern chess. In all competitive chess you have only a certain amount of time in which you have to make your moves; either a time for the whole game or for a certain number of moves, or a combination of both.

If you run out of time you lose. This rule is perfectly clear to us at the start of the game and so we should take it just as seriously as what is happening on the board.

There are still many players not really taking this in, blaming their loss on lack of time and their bad moves on time pressure. But lack of time is never an excuse, just an explanation like any other explanation for bad move choice.

It is absolutely crucial you learn how to handle your time. And make no mistake, this is obviously a hard discipline. There are countless examples of grandmasters losing in time trouble because they spent too much time earlier in the game. Players that really should know better.

Distribution

Some players argue that it is more important to spend time early in the game, because later on it might be too late. If you get a bad start, time will not be enough to save you. While this is true, the argument suffers from the same logic as the amateur telling you that the opening is so much more important than the endgame.

The truth is that, as important as it is to have knowledge of all phases of the game, it's just as important to distribute your time among all the moves you have to make.

First of all, you need to know how much time you have for the number of moves you know you'll need to make (or at least think you'll need to make). This will allow you to calculate the average time you have for each move. This is of course

important information, since at least you'll know if you are spending more than the average time on a move, or even if you play too rapidly.

For example, if the time limit is 40 moves in two hours it means you have three minutes per move. Alternatively, if you have 5 minutes for the whole game, you can start out by planning for the game to be a certain number of moves, like 40, and conclude you have about seven seconds per move.

Don't misunderstand me, you should not try to spend the same amount of time on every move, but you should keep a close eye on how your average time is tracking.

If you know your opening theory, you will also realize that your first 5-10 moves (or possibly even more) will take you almost no time, so your available average time can be increased. So in our example with 40 moves per two hours, in reality you might have a whole two hours for 30 moves, or four minutes per move.

Of course there is no reason or need to spend more time than necessary on each move, so forced or natural moves, such as recaptures, should not take much time.

That said, if you have a reasonable average time per move, you should always try to complete the whole thinking process circle every move, possibly with the exception of the Prepare step, which inherently looks at more than one move at a time. And do not just blindly accept moves you think are forced or natural. Forced moves and calculations have to be rechecked every single move.

In blitz chess you really don't have time for much of anything, but even in rapid-play you should always look at threats and forcing moves for both sides.

If during your game you find your average time remaining per move decreases too much compared to your initial plan, you should start to get a sense of urgency, not by skipping thinking steps, but maybe by avoiding too much complication. Remember, later moves are usually just as important as earlier ones and deserve as much attention and effort from you.

You'll have a perfect distribution of time if you make the known opening moves immediately, forced and natural moves reasonably quickly, and average moves in an average amount of time. In this way you'll have sufficient time left over for the few critical moments in your game.

Some points in the game are potential turning points and demand more time. But even then, if you find yourself spending more than maybe five times the average time on one single move, ask yourself whether you are doing the right thing.

When Time is Running Out

Sometimes time does run out, whether it's due to spending too much time on earlier moves or for other reasons. If you find you have just half your original average time left per move, start being pragmatic and have a slight bias towards low calculation candidates, especially if their value seems close to the more complex candidates. Do not stop performing Update, Select, Verify and Check and be particularly careful not to skip or rush verification. You will regret it, I guarantee you.

Of course, once you start moving into an average time comparative to rapid chess, it becomes increasingly important to save time and to be pragmatic, but continue checking threats and forcing moves for both sides.

And when you have less than half a minute per move and are close to the blitz chess average, you have crossed the line. This is when you have to start trusting your intuition and experience for just about every move. It might not sound too bad, but remember you have to be very strong to have such a good intuition, and if your opponent has more time left he will most certainly have the upper hand. You do not want to get into this situation. Intuition is good, but intuition and logic is much better, especially when combined with less stress.

An important aspect is what you do about notation. You should try to continue notating your moves until you get into blitz mode, and even then you usually need some way of recording how many moves you have left to reach the time control. In this case, just mark every move you make on your scoresheet, and then record the moves fully when you reach the time control or when the game is finished, whichever comes first.

If your opponent has more time than you, obviously you will try to think during his time, and sometimes this works pretty well, but what do you do when you are the one with more time on the clock?

I am convinced you play your best when you play according to your usual rhythm. So don't let your opponent's time trouble affect you too much. Use your time as usual and choose your move as you would in any normal situation, possibly with a slight preference for surprising and complicating moves – that is, if you have the time to figure out their consequences.

The idea, of course, is that if you present your opponent with a move he did not expect, or a move that is so complex it has to chew up his time, and if you have actually spent time considering and checking it carefully before he even knew you were going to choose it, then this move could be the final straw in his time trouble.

Finally, don't let yourself become stressed because your opponent is making his

moves quickly. He has to, and you can be sure he is more stressed about it than you, and much more likely to make serious mistakes.

The Big Think

You should be prepared to spend more time on certain moves, sometimes even a very long time. The important thing is that you are doing this when you actually have time to spend, and more importantly, that you spend it for the right reasons.

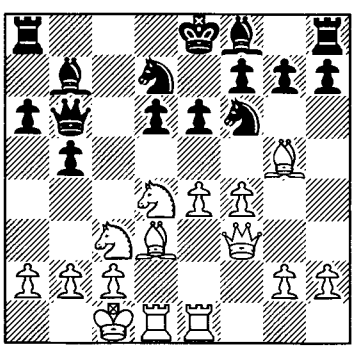
The moment to spend more time on a move is when the game is at a turning point. That is, when it potentially makes a big difference which move you choose.

Some critical moments are easy to identify. If you are evaluating a move that could decide an otherwise equal position, or save a lost position, then it is of course worth every second to figure out its consequences. But don't waste all your time and risk ending up in serious time trouble.

After the Opening

It is not hard to realize the importance of taking extra time right after your known opening moves, since at that point you have not established any thinking rhythm. But more importantly, you have not built up your understanding of the position, other than your home preparation that is, since you have not calculated any variations, looked at any forcing moves or other candidates or replies, and you have not built up any positional understanding.

In short, you have not done the Update, Select, Verify, Check or Prepare steps at all, just the Execute step. So take a deep breath and do a proper Prepare step, followed by thoroughly going through the other steps.



Example 210 (W)

Black has just played ...Qc7-b6, which takes White out of his known theory.

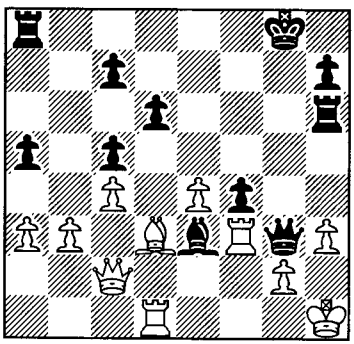
Using his general knowledge of this Najdorf Sicilian, White should now take some extra time to recall the plans and common moves and do a proper Update, Select and Verify.

White chose 1 Qe3, to avoid having to retreat the knight to b3, but the thematic 1 Nd5 exd5 2 Nc6 (or 1...Qxd4 2 Bxf6 gxf6 3 Bxb5) was also possible.

Entering the Endgame

Another absolutely crucial moment, when you have to make sure what you are getting yourself into, occurs when you are considering transforming the position into an endgame, often by trading queens. Endgames, as opposed to middlegames, follow their own rules and their own pace, and they are more often than not already decided once you enter them.

As I've said before, make sure your chances in the endgame are better than in the middlegame before entering into it, or before you let your opponent do so. This is not the time to be lazy. Make a thorough evaluation of the endgame position and calculate as far as you need to make up your mind.



Example 211 (B)

Black is aggressively placed and is closing in on the white king. He has the opportunity to win a pawn by 1...Rxh3+ 2 gxh3 Qxf3+.

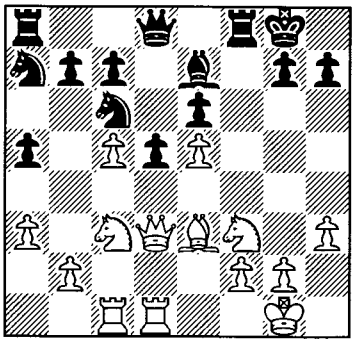
The challenge is that after 3 Qg2+ Qxg2 4 Kxg2, Black has entered an endgame with opposite-coloured bishops and only one pawn extra.

After careful consideration, Black evaluated his chances in the endgame as better and chose 1...Rxh3+.

Once you have actually entered the endgame, it is usually also a good idea to sooth your often fiery feelings from the middlegame, and get into a calm and planning rhythm for the endgame. If you can, take some extra time at this point.

Transforming Imbalances

You also have to spend some extra time whenever you are transforming other imbalances. This is also quite natural because when transforming an imbalance into something else, you need to establish whether the new imbalance is more valuable to you, taking into consideration any concessions you might have to accept.



Example 212 (B)

Black used a lot of time before entering 1...Rxf3 2 gxf3 Nxe5 3 Qe2 Qf8 4 f4 Ng6.

For the exchange, Black got a pawn and created weak doubled pawns for White on the half-open f-file.

This is especially important for static imbalances, since they rarely change. So every pawn move and every exchange need to be carefully considered. It is way too common for players not to care much about these two aspects, but the truth is they often lay the foundation for the outcome of the game.

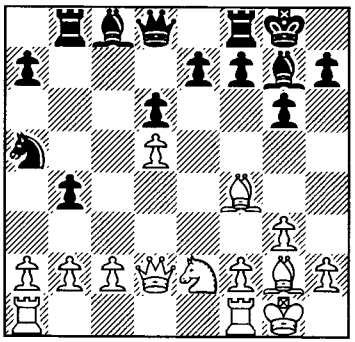
Changing a Trend

Have you ever felt the game slowly slipping away from you? This is a common feeling among stronger players, because when no obvious mistakes are made, small advantages tend to accumulate, creating a trend.

The first sign of a bad trend is usually that it becomes hard to find a good move. Once you have realized this, you will most probably also realize that your opponent actually has more than one good move to choose from, and that he has at least one natural and good plan. You might even get the sense that his game can virtually play itself.

It is crucial you pick up trends like this, and also crucial you are aware of how serious the situation is. If you find no way of changing a trend, you will most likely lose the game, even if you sometimes can prolong it substantially.

Obviously, the earlier you can identify a negative trend the better. Strong players can sense the danger in a position long before it materializes, a sense gained from experience and helped by suspicion.



Example 213 (W)

A.Ivanov-J.Silman, New York 1991

Black has just played ...Nc6-a5 and has increased his initiative over the last few moves.

White stopped the knight entering c4 by 1 b3, offering the exchange to turn the tables. After 1...Ba6 2 a3 Bxe2 3 Qxe2 Bxa1 4 Rxa1 bxa3 5 Rxa3, White was out of the woods and had the edge.

When you identify a negative trend or get that feeling of danger, something needs to change. You need to do whatever you can to break the trend, and you should be willing to spend time finding the means.

Indecisiveness

Sadly, the biggest creator of time trouble is not the well motivated big think, but rather spending too much time making your mind up.

Sometimes indecisiveness stems from trying to choose between two candidates. Maybe they both look promising, but you cannot make up your mind about which one you prefer. They might both be forcing or positional, or maybe one is quiet and positional and the other one complicated and tactical.

Whatever the reason for spending time making your mind up, once you have done your best to establish the value of each candidate and weighed the risks and potential gains, just make a decision. You will most probably not be any wiser ten minutes later. Do not jump back and forth between the moves just repeating variations. Remember, if you cannot make up your mind, the candidates are likely to have approximately the same value.

A close relative of this is when you cannot seem to establish an accurate value for a candidate or a variation. Some positions are just too dynamic and complex to be able to evaluate accurately, it doesn't matter if you are human or machine. It's important to realize when this is the case, do your best to establish a value, weigh up risks and potential gains, and let your intuition guide you. You really don't have much choice, as wasting time in vain definitely will put you in trouble.

Sometimes you are evaluating a promising candidate you really believe in, but

when you calculate the variations, you really cannot make it work. After a big think, you finally come to the conclusion that you have to pick another move. Looking at the clock and realizing how much time you have spent, you get stressed and almost panic, since you still don't know what move to make.

Many, many mistakes have been made in this situation, because people tend to pick a second move that just looks good, without verifying it. Accept the fact that whatever move you will choose in the end, it will have to be just as scrutinized as any other. The fact that you spent considerable time on another move does not change this. Remember, spending more time on a move you rejected than on the move you selected should be a warning sign.

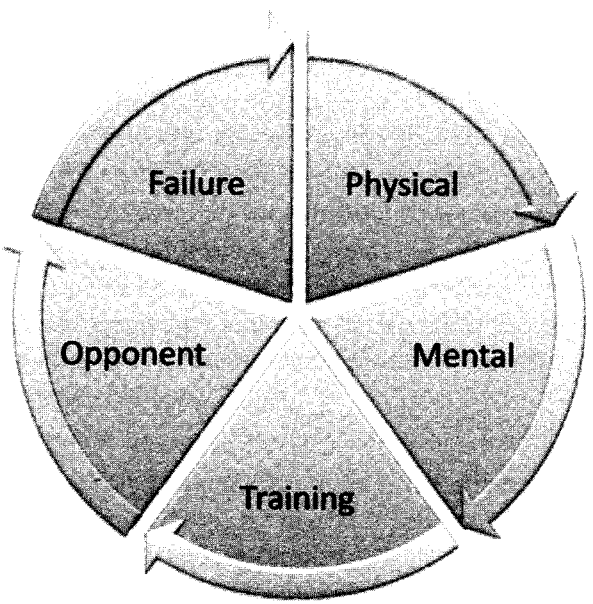
Many people also spend a lot of time because they simply can't find a move they like. This situation is closely related to being unable to find a move that meets your expectations of the position.

But you don't have to find a move you like – there might not be one, and your expectations might not be correct. Your task is to choose the best move, regardless of whether it meets your expectations or not. Just find that move and execute it.

Part Five
Preparation

How do you prepare in order to be successful in finding your best moves and ultimately winning your games and doing well in tournaments? How do you obtain the knowledge and the skills you need, and are there more aspects you should cover before you sit down in front of your opponent?

I have identified five distinct areas of particular importance:



The simple answer is doing lots and lots of **training** to build the necessary knowledge and to practise the necessary skills.

But it matters little how much you train if you don't have the **physical** ability to endure a long game or if you have the wrong **mental** mindset. If you cannot think well enough, no knowledge and no skill will be able to save you.

And you can prepare yourself even further by knowing your **opponent**, and also by knowing yourself well enough to be able to learn from your **failures**.

At this point I would like to stress that the recommendations I make in this section are purely based on what has worked best for me and the junior players I have trained, even though some findings are widely accepted and some even obvious. I advise the reader to try out the recommendations and vary them to suit his own individuality. Find out what works best for you.

Physical

Don't fool yourself. Even if chess is a game of the mind, your physical strength is important. Not that you need a lot of muscles, but you do need to be fit to endure a long game and to be able to stay alert and concentrated for several hours.

Remember that many games are decided because one of the players suddenly loses concentration, often several hours into a game. Well, an alert body serves an alert brain.

Most of what I will tell you about your physical ability should be a matter of course, but most players need to be reminded nonetheless.

Rest

Like with any other creative and logical use of the mind, it is important not to be tired. Make sure you get enough sleep the week before a tournament.

It is often most efficient to get into a routine, going to bed the same time and rising the same time each day, obviously with enough hours in between to give you a decent sleep each night. How much sleep is needed depends on the individual, but don't underestimate the number of hours you need.

Some players love to prepare, analyse and even play the same day as a tournament game. The downside to this is that the mind concentrates on details and is not saving its power for the game. You should already have prepared everything before the day of the tournament, and you should try to get some distance and rest before the battle.

I would even recommend settling down your mind the day before the tournament, not pushing too hard with preparation. The day before it is much more important to get into the right mindset than to look at details or play a lot of training games. Again, the hard preparation should already have been done. If possible, take the day off and just relax.

Exercise

To be fit for hours of playing chess you need endurance, keeping your thinking on an even level for as long as it is possible. This means you should try to keep your

body healthy and fit.

I usually prefer running at least three times a week, but exactly what you do is not important. The important thing is that it builds your fitness and your endurance. Knowing myself, it's even more important to do something you enjoy, since otherwise the risk of not keeping it up is usually too big.

You will get more energy by exercising, and more energy will help you stay concentrated longer. These are facts.

Food and Drink

When it comes to food and drink, again our aim is to stay evenly concentrated for several hours. This means you are really not after any energy kicks, since they are always short. So try to avoid energy drinks, coffee and sugar, unless you are at the end of the game and are struggling to maintain focus. Of course, a short energy kick is better than no energy, but when the energy kick is over, you usually get more tired than before.

You should also not eat too much before the game, or between games if you are playing more than one a day. Food needs breaking down, and the body will concentrate on this task enough to make you tired the following hour or two.

That said, concentration needs energy, so of course you need food. You should eat enough to not be hungry during the game, and you might eat something small between two games scheduled on the same day. And again, avoid sugar.

Mental

Your mental ability and your mindset are crucial for your overall ability to play well and to win. Remember that the very reason you need to be physically fit when playing chess is so the mind can stay focused.

If your ability to use that focus disappears, or if you lose your will or your hope, you will most certainly lose.

Goal Visualization

First of all you need to believe you are strong enough to win. If you are already among the top ten in the world, or if you for some other unfortunate reason only play people weaker than yourself, this will not be a problem.

But if you try to stretch yourself and constantly reach higher, chances are that you will play many stronger opponents, maybe even much stronger than yourself.

A mental method used among many top athletes is that of goal visualization. Using this method, you clearly and repeatedly visualize reaching your goal, for example winning the tournament. Try to visualize this as vividly as possible for it to become part of your belief and to affect your mindset. Then continue visualizing playing each of your opponents. The more you know them the better, because you can even visualize their weaknesses and how you might beat them.

Visualize yourself having a rating considerably higher, maybe a rating you think you will be able to reach within a year or two, and visualize how your strength is used to grind down your opponents, one by one, until the end.

Repeat this process daily for several days or even weeks before the tournament.

Attitude

Once you believe you can beat your opponents, you need to have the right attitude. First of all, you need to realize that you are as strong as your moves, not stronger, but nor weaker. This means that if you make grandmaster moves, you can beat a grandmaster.

But it also means that if you make weak moves, if you are shuffling you pieces, or if you are content with finding a good enough move, then you can lose to weak players, regardless of your rating. Don't fall into this trap. It is crucial that you be-

lieve it does make a difference which move you choose. Because it does!

Both you and your opponent will get chances to find a move that is clearly the strongest in the position, yet is hard to find. There is no one to tell you when you have to look for such a move, and more often than not it will be in a position where you least expect it. The conclusion is that you always have to try finding that best move. Always! It is the only way to excel.

You should always believe it is possible to win, even against a strong opponent. The goal visualization is an important preparation for this, but when you are sitting at the board, your attitude should be to win.

Some players convince themselves a bit too much, feeling almost invincible. This is naturally most common against weaker opponents. The effect is that they start believing the game will play itself because they are so strong. But again, you are only as strong as the moves you make.

So if it is important to believe you can win, it is equally important to realize that it will take hard work. You should tell yourself that you will only find the right moves if you put in the required discipline and hard work. You have to do your Update, your Select and your Verify, and you have to do your calculation and your planning when needed. There is no easy way to excel.

And since your attitude should be to win, you should be prepared to take well-informed risks. Well-informed is the key, because it is easy to take risks, but most risk-taking will only get you into trouble. And you want to win, not to lose.

A well-informed risk is a risk where you have done your hard work of calculation and evaluation, and weighed up the possible gains against the risk, and still think the move has good prospects.

Such a risk, even if it might feel scary to leave the comfort of an even position, actually should make you feel more secure, because there is nothing in an even position saying that you will not lose if you avoid risks. Be brave, but never foolish!

Another virtue in chess is patience, which seems almost contradictory to what we said about taking risks. But there are many situations where taking a risk is unnecessary, like when you already have a winning positional advantage, or when patient defence will wear down the attacker. Taking a risk in these situations would be misguided.

Never panic! Never take a risk without seeing potential gains greater than the alternatives. Be patient. Your turn will come. Always believe you will get another chance if you are defending. But you have to look for it, otherwise you will likely miss it, and you might only get one chance.

Training

Training is all about building your knowledge and strengthening your skills.

Armed with a solid knowledge, your mind will consciously or subconsciously lead you to good possible candidates and ideas, whether tactical or strategic, dynamic or static.

Your skills will then take you the rest of the way, by using what your knowledge has suggested. Your skills will enable you to fill in and figure out what your knowledge alone couldn't, evaluating variations and plans and reaching complex conclusions.

Governing all your skills is the thinking process, outlined in the beginning of this book. Of course, the thinking process in itself can be seen as a skill, the skill of how to combine the other skills, but we will treat it separately.

So to master chess, we need to master the art of selecting moves, and to select moves we need to master all the areas in both knowledge and skills. They are all crucial to your success, so I recommend you treat them as all equally important.

But how do we train our knowledge and our skills? Well, I am sure you have heard the expression telling us that repetition is the mother of learning. This is definitely true for knowledge, since the human brain seems to make less used knowledge fade away. And for skills, I think we can all agree practice is one of the main ingredients.

The conclusion is that you have to build your ability on repetition and practice. And for it to be effective and to help you not to slip, establish a training schedule and keep track of your training.

If you are ambitious, you should have an ongoing training schedule, which you increase substantially the weeks before an important tournament. Of course you should also take leave from your training, but don't let it slip.

Apart from explicit repetition and practice, it is also important to play a lot of games, both blitz games and long games. By doing so, you gain all the experience you would otherwise only get from your preferred tournaments. You will evaluate, calculate, plan and play so many more positions, and you will have the freedom to explore and to try out things you might not have done in an important tournament.

Playing blitz chess lets you experience many more positions than you could otherwise, and you can train your pattern recognition and your ability to handle time pressure. On the other hand, you need much more time to train your calculation, planning and thinking process, which is what you get in longer games. So don't overestimate the value of either form compared to the other. Play both.

You should also be careful not to overestimate the value of playing games compared to performing other training. Some players think the more they play, the better they will become. But this is usually only true up to a certain level.

Most players not also doing substantial and focused training stagnate and get stuck in the same patterns and the same old way of thinking. To move on, something needs to change, and if you have repeated less optimal patterns for too long, you might find it hard to get rid of them.

Process

The best way of training the thinking process is to start out by playing games where you have a lot of time for each move. Playing correspondence chess on the Internet is a good example. What you do is you explicitly make yourself perform all parts of the thinking process described in this book for every single move, regardless of whether you think it is a waste of time.

The idea is of course for you to cement the whole process, so that after some time you don't have to look it up or even try to remember the steps – you just know. And once you get to that stage, you will find it actually doesn't take so much time to be disciplined.

Of course, since your goal probably is to perform well in over-the-board play, you should try not to move any pieces around. And by the way, you might find that you still lose quite a few games to the correspondence enthusiasts. But don't despair, because your goal is not to play good correspondence chess. Correspondence is very different from over-the-board play.

Once you have grasped the thinking process well enough, you should start playing non-correspondence games. The Internet is still a good choice, but you should limit your time to what you would have in a real game.

Knowledge

Opening

Knowing your opening is about knowing the underlying principles, the most

common plans and tactics, but also all the main variations.

There is nothing like thoroughly understanding an opening. It is also extremely time and effort saving to know the main variations by heart.

First of all, you must decide on which openings you want to learn. Once you have done this, read and study books specializing in them. And when reading them, make a special effort to identify and remember the main themes, plans and tactics, especially in the variations you think you will use.

Make sure you play through plenty of grandmaster games featuring the critical lines of your chosen openings, noticing the common moves, the ideas behind them and their order. Also note the typical endgames resulting from the openings, so you can build specific technical knowledge around them.

Then build a detailed repertoire with all the variations you think are worth remembering. We have already discussed the size and detail of such a repertoire. Just remember that you want it to be both broad and deep – broad and shallow enough to cover just about any opening you might encounter, and deep enough to get you going far into the middlegame when playing the main lines.

Once you have built your repertoire, start remembering it by plain and simple repetition. It is a big job, and you will find it mundane, but once you have rehearsed it many times and realize you actually remember all the lines, you will have a foundation to last you for years.

Repeat this training now and then, especially before tournaments. But also remember to keep watch for important new findings, either by subscribing to chess magazines on the subject or by continuously checking the lines played by the top grandmasters. If they play your variations, you can expect more of your own opponents to follow suit, so watch out for novelties.

Endgame

Apart from the generic principles described earlier, knowing endgames is mainly about knowing the common theoretical endgames. There are some endgames all chess players have to know, many more very useful ones, and plenty of rare and not-so-useful ones.

If you don't already know the basic endgames, make it a priority to learn and rehearse them until you never forget them. Then make up a list of all endgames you think would benefit you, and don't make it a short list.

The list should have a large amount of pawn endgames and rook endgames: pawn endgames to give you a foundation for quickly assessing potential pawn end-

games in your calculations, and rook endgames simply because they are the most common endgames. Repeat these endgames now and then, especially before tournaments.

As part of both your knowledge building and your skill practice, to train your technical ability and your ability to calculate and plan in endgames, select training positions from books on the subject and analyse them.

Also take every opportunity to play endgames, even if they at first sight look dull or dead drawn. You will find not nearly as many of them will end in a draw as you might think.

Imbalances

To train imbalances, first of all understand and learn to recognize them and the generic ways to handle them, as described earlier.

Then select a large number of positional example positions from books on the subject or from other media. Analyse the imbalances and try to understand how they are created and sustained, and how to increase their value and how to neutralize them.

This training can be combined with practising planning, since the two are closely linked.

Combinations

The knowledge of combinations is the knowledge and recollection of thousands of common combinations, not necessarily complex ones. In fact, the complex ones are usually less common and therefore not as important, even if at first one might think they would be even better to know.

Also realize that even though solving combinations we have never seen before is good skill practice, it does not necessarily mean they build much knowledge, since you do not repeat them.

As mentioned earlier, to build your knowledge of combinations, you should select thousands of easy and medium combinations, and repeat them again and again. You can, for example, start with about 1000 combinations, either from one of the many books filled with combinations, or using digital training media.

It is actually not that easy to find the right level of complexity, since the combinations should not be hard enough to be useless knowledge, nor easy enough to be trivial.

Once you have selected the first batch of positions to solve, start out by solving them, one by one. If you solve all of them, they are too easy, but if you have a hard time solving more than half of them, they are probably a bit too hard to be optimal.

Give each position some time to understand and figure out, but when you get stuck, look at the solution, take a short pause trying to remember it, and move on to the next. It is often effective to repeat them say ten by ten, so when you have looked at ten positions and tried remembering them, you return to the first one and check that you actually did learn something before you continue with the next ten.

This way you continue until you have looked at all the positions and tried solving and remembering them. It is up to you how long you take for this. It depends on how much time you are willing to spend and how ambitions you are. Just remember that this knowledge base, the combinations, is probably the most important knowledge you will build.

When you have reached the end, start all over again. This time, spend less time on each position, but also be harder on yourself with the solutions you cannot remember. Make a special effort to remember them.

And when you are finished, you start again. Repeat the process, using less and less time, until you feel confident about remembering most if not all of the combinations.

Then select 1000 new ones and start again. If you have very high ambitions, you should keep on doing this for your whole career, or at least until you feel it really does not give you anything new anymore.

Attack

To gain knowledge of attack, play through explicit attacking games, notice the patterns and the means of gaining and sustaining the initiative, and try to understand the impact of the selected moves. There are books dedicated to the subject, containing not only the actual games but of course also explanations to ease your learning.

To further increase you knowledge and experience in attacking, play explicitly aggressive training games, where if possible you concentrate on attack, and where you take more risks than you might have done in an important tournament. This is one area where blitz or rapid chess can be very efficient in trying out different attacks and quickly building experience.

Skills

Calculation

To be able to calculate at all, you need to be able to visualize the positions in the variations. To practise your visualization, there is nothing better than playing blindfold chess.

At first it might not seem to give you much, but the more you do it, the more clearly you will see the positions in your mind, not only in the blindfold games, but also when you calculate variations in a normal game.

Another effective way to train calculation is to select complex positions (or even complex studies, even though they tend to be less practical), and start calculating the relevant variations. There are several books and digital resources filled with training positions, but you can also just select interesting grandmaster games, play through the game up to some critical point, and start from there.

When you calculate, make a special effort to practise successive deepening and efficient pruning. Make it a priority to know you have a sense of all possible candidates, both for yourself and your opponent, and try hard not to calculate many unnecessary variations. Remember, strong players don't calculate more variations, they calculate the most important variations, which is of course easier said than done.

As soon as you have a major branching a few moves forward, also make an effort to visualize the position clearly, and try not to return to the original position when you start calculating another branch.

The thinking process tells you of two different calculations: one for selection and one for verification. The selection is when you look primarily at your own candidates and try to make out which one you think is the strongest. You can look at this step as the first scans of successive deepening, and as building the main branches of the tree. You fill in details in the tree until you think you know which move to select.

Concentrating on the opponent's possibilities, the verification then fills in all the details needed to prove that the candidate you think is the strongest actually has the value you expected, and that no nasty surprises wait around the corner.

There is an interesting calculation training mode in the chess program *Fritz*, where you can make your moves without actually changing the diagram. When you are finished with your calculation, *Fritz* can then evaluate your effort. I highly recommend this way of training, whether you use *Fritz* or another program you know has this capacity.

You should of course also train your calculation by just playing games. Correspondence games are fine, just as long as you calculate without moving the pieces. Of course, once you have finished, you can check your visualization by moving them.

Evaluation

Evaluation is so tightly tied to imbalances and planning that you would practise them together. When you plan, you identify the imbalances, analyse them, and evaluate their value in relationship to each other. You then identify your objectives and form and verify a plan.

If the plan works out, including possible tactical variations, your evaluation of the imbalances and the position becomes complete. You have come closer to the true value of the position at hand.

Planning

To practise planning you should have plenty of time at your disposal, at least initially. You need the time to properly analyse and synthesize the imbalances, and to formulate and verify a plan to reach the objective.

Again, correspondence games on the Internet are a good way to practise. Be sure to go through all the steps of planning to cement the process and to make good decisions.

But remember that planning is only the Prepare step of the thinking process. Even if it makes your move selection and even your move verification easier, you still need to also go through all other steps in the thinking process.

Time

Practising time management is probably best achieved by playing games with the same or slightly less amount of time as you would normally have in a tournament. If you choose this method, be sure to note exactly how you use your time and try identifying potential issues in your handling.

Another way to focus on choosing a move within a certain time is to select complicated positions and give yourself a limited amount of time to choose a move. Since the positions are complicated, you should not give yourself too little time. Somewhere between 5 and 15 minutes is probably reasonable.

There is nothing like playing blitz chess to practise your handling of time pressure. Play a lot of blitz chess, even if your only goal is to become a stronger player in games with more time. It will make your play stronger.

Opponent

We have all heard the expression "know your enemy", which is central to all warfare. It is quite natural, since knowing your opponent will put you in a better position to foresee his actions and to use his weaknesses for your own benefit. Chess is no exception.

Opening

In modern chess, opening preparation is paramount for world-class players, and you constantly see grandmasters trying to out-prepare each other by preparing strong novelties in the opening variations most likely to occur in their games.

One might think it is a bit sad that even a weaker player can sometimes out-prepare a grandmaster by using powerful chess programs to find surprising novelties, but whether you like it or not, this is an important part of modern chess at higher levels.

This means you should try to find out who your opponents are likely to be before a tournament, and then try to find out which openings they prefer, and which variations.

Then compare this to your own opening repertoire and decide whether the variations in your repertoire will be sufficient, or whether you want to add new ones now that you know the likelihood of them materializing has increased. Be sure to learn these variations and rehearse the ideas and plans for the opening.

It is also worth mentioning that if you already happen to have a bad track record in these variations, or if you think your opponent knows you well enough to have prepared heavily too, you might want to consider switching to another opening. But if you do, be very careful not to fool yourself. You should still make sure you know the opening well and that the opening suits your style.

Style

Even more important than your opponent's opening preference is his style. How does he usually win? Is he primarily positional or tactical, does he like open or closed positions, middlegame or endgame, bishops or knights?

Whatever you find out from your opponent's games, compare it to your own style and try to figure out whom the clash between your styles will probably favour, and what you might do to take advantage of it.

Strengths and Weaknesses

Very closely linked to the style are the strengths and weaknesses of your opponent, basically because most of us either have a style making us strong or let our style become a product of our strengths. This is natural and it is even the best way to utilize your strengths.

So when you try to get to know your opponent's style, also look out for his strengths and his weaknesses. Does he tend to miss tactical opportunities, or miscalculate, or is he weak at planning or at endgame theory? Or is he a formidable attacker, razor-sharp calculator or tactical genius?

Again, once you find them, try to steer clear of his strengths and try to reach positions in which he is more prone to make mistakes. Of course, equally important is that you don't end up in a position where *you* also are weak. But even then, if you know you are likely to enter positions in which both players are less strong, at least you have the possibility to prepare and hopefully strengthen yourself.

Rating

If the relative strength between you and your opponent is substantial, you might also play differently depending on your opponent's rating.

When you face a player that is normally much weaker than yourself, the most important thing is not to make any significant mistakes. The verification becomes more important than the selection. The reason is simply that when neither of you make any mistakes, your average ability to choose stronger moves than your opponent will most probably decide the matter in the end.

But be patient, very patient. Your opponent is likely to get frustrated and to make mistakes you can start working on.

On the other hand, if you play a stronger player, unless he has a bad day something out of the ordinary has to happen for you to win. So you need to increase the likelihood of your opponent going wrong. To do this, you need to complicate the position and be prepared to take more risks than you would normally do.

This might at first seem like the very opposite of what you would expect. Wouldn't a stronger player be better equipped to face complicated positions? Yes, absolutely, that is why he is stronger than you, but it is still your best shot. The human

mind needs to be reminded that an even, uncomplicated position does not mean you are more likely to avoid losing in the long run.

Psychology

Some players try to intentionally stress their opponents or make them feel uncomfortable. I will not recommend this, since I see it as bad sportsmanship and since it is against the rules of chess.

That said, of course you should make a strong and controlled impression on your opponent. If he feels weaker because you appear strong, that is his problem. If he feels weaker because you actively make him feel bad, it is your problem, and you should stop.

It is quite common for players to make their moves in such a way that their opponent thinks they are strong. For example, they might make the moves forcefully, full of confidence, and by doing that they try to affect their opponent's impression of them.

I don't know about you, but personally I think the hardest opponent is the one making every move in a controlled and consistent way, always looking like he knows exactly what he is doing, and never ever letting on if he is stressed or excited. If there is anything that can make you unsure of your own ability, it is facing someone who never sways.

Just play your game, have faith in your abilities and your possibilities. Be in control, know what you are doing and don't show your opponent if you are distressed. If possible, show great concentration and radiate will and ambition. This is how you scare the wits out of your opponent.

Failure

Of course, knowing your opponent is not enough. You have to also know yourself. Hopefully, we all know ourselves better than we know our opponents, but we can all improve substantially by analysing ourselves and what happens to us.
Many rising players concentrate on their strengths, sometimes subconsciously since we all tend to repeat earlier successes. It is important to know our strengths, and yes, we indeed have the greatest chance of success if we can use our strengths, but it is also important to realize that you don't learn much from studying what you did right. By doing that, you simply look at what you've already found at least once and are therefore likely to find again. Nothing learned.

Instead it is natural that we learn the most from looking at our mistakes and our failures. Some players avoid this, not only because it is not as fun, but because it can even be painful to bring back the memory of a loss in a crucial game. Nevertheless, this is exactly what we all have to do.

Failure can take many forms, but you learn from all of them by asking yourself why you failed, and then trying to figure out how this failure could have been avoided. If the answer is a lack of skill or knowledge or even process in a certain area, you need to find a way to improve, usually by training.

Calculation

The most obvious failure is making a mistake in the calculation. This happens most often because you missed or underestimated a reply from your opponent, more often than not a surprising forcing move a few moves deep.

It is important to identify the missed move, to ask yourself whether you missed it because of lack of discipline or because you have a tendency of missing this kind of move. It is usually a good idea to collect these positions and make them part of your combination training. If you rehearse them often enough, you will not fall victim again.

The very same is true for the winning or saving moves you missed in your selection, again most possibly forcing moves. Identify them and make them part of your training.

Of course, miscalculation is not always about missing moves for you or your opponent. The skill of calculation has many facets, and failure can also come from bad visualization or not looking deep enough. In these cases, it is not the move but the skill that is flawed, and you might consider ramping up your blindfold chess or your other calculation training.

Planning

Even though tactics is king, you don't always lose because you missed a move and miscalculated. The stronger you become, the more important strategy and positional play will become, and it is important you evaluate the position correctly and formulate your plans accordingly.

This kind of failure is often the result of overestimating your own possibilities and your own plan compared to your opponent's. Even worse, it might even be because you didn't even try to identify your opponent's possibilities and how they might affect your plan.

Again, you need to identify why you failed. Did you look at your opponent's possibilities? Did you overestimate your own? Was there a better plan you could have chosen, or should you even have avoided your very opening choice?

Once you think you know what you could have done better, make sure the patterns stick in your mind to be used the next time you play a similar position.

A special case of this kind of failure is when an attack fails. Then you need to ask yourself whether the attack was premature or even unwise, and what you could have done instead.

Or was the attack correct, but your opponent's attack crashed through first? This kind of failure is very common and also one of the hardest to identify the cause for. Sometimes the very opening calls for such a race, and time is usually the deciding factor.

You can find yourself in a game where both sides know exactly what to do to attack, and ten moves later, your opponent's attack proves faster or stronger. You might not even understand what you could have done about it. Usually, there is a way to improve the attack, and you should try hard to find it. But remember, if you feel you could have done nothing about it, maybe you are playing the wrong opening.

Time

If you find yourself losing because of lack of time on the clock, you probably need

to train yourself to be more pragmatic in your move selection, and definitely to be more disciplined in using your time. Do remember that all moves will use some time on the clock. It does not really matter if you think you need to spend a lot of time on a certain move, if you don't save any time for the coming moves.

Some people fail because they don't use their time, either because they think they don't need it or because they are fooled into playing too quickly by their opponent. This kind of failure is a sign of bad discipline. You should know exactly what you need to do to reach a conclusion every time it is your turn, and whatever time you need to do that is probably the right amount to spend.

Attitude

More often than you might think, failures are a result of a player's attitude. Most commonly, this happens when having strong expectations of a position. Endless numbers of players have found their won position ending in a draw because they thought the game would win itself, or lost a position because they thought it was a dead draw. There are even many examples of players who have resigned in a drawn or even won position.

If this is the case for you, turn it all around and discipline yourself to play until the end, and to always make your opponent prove he has a win or a draw. It is just a matter of attitude.

Never think an even position means the game is drawn. Never accept a draw in a position you cannot lose, or in a position where you are on top, unless it is really and truly a dead draw. And never resign a difficult position until the winning moves are obvious even for a weak player. Do not assume anything.

Another common failure is the tendency to draw too many games. This is not only because you accept draws in even positions, but quite often because you don't create enough imbalances or the correct imbalances to really achieve the means to win. If you are afraid of giving your opponent imbalances to work with, you will usually not get any of your own either.

The core of this predicament is usually risk avoidance. You need to change your attitude towards taking well-informed risks. You need to change your attitude.

Knowledge

Failure can also be the result of lack of knowledge. It is common for players to miss wins or draws in theoretical endgames not known to them, and the lack of proper understanding of an opening and the associated plans and mechanisms is also a

common cause of failure.

In both these cases you need to identify exactly what you didn't know and work out a way to correct it. Also ask yourself whether there are similar kinds of positions you should learn to handle as well, and how big your gap is in this area. Have you spent too little time looking at theoretical endgames? If so, you might want to set up a whole training plan for improving your endgame knowledge.

Don't be afraid of identifying where you have your weaknesses. It is by improving your weaknesses you become truly strong. Remember, to win, your opponent needs to exploit weaknesses. Don't make it easy for him.

Conclusion

By now I hope I have convinced the reader of the potential gains of using a disciplined way of move selection, and how such a process heavily relies not only on the necessary skills, such as calculation and planning, but also extensively on having a substantial knowledge base to guide immediate and subconscious decisions and ideas.

Chess is not only about experience, knowledge and pattern recognition, nor is it only about brain power, visualization and logical thinking. It is not even about the discipline or the process. To succeed, you need it all, and you have to be driven by a strong will, having great endurance, and knowing yourself as well as your opponent.

I would like to end by giving the reader some words to think about. If you have listened to all I have been trying to pass on, you will no doubt know what they all mean. Together they embrace the essence of this book.

Good luck in the quest for your best move!

You win games, not tournaments.

Play to win.

To win, you have to risk losing.

An even position does not mean the game will be drawn.

Know your opponent.

You can beat your opponent, but it will take hard work.

No game plays itself.

Every game has to be played until the end.

Make your opponent prove himself.

It does matter which move you make.

To find, you have to look.

You might only get one chance to win.

It only takes one bad move to lose.

Find the best move. Trust your opponent will.

To win, you will have to find what your opponent doesn't.

Look one move further.

All forcing moves are potential winning moves.

Combinations arise as quickly as they disappear.

Treat every position as if a combination is possible.

There is luck in chess, but no bad luck.

Believe the opportunity will come. And don't miss it.

Every move has drawbacks. Find them.

Never make a move without looking for alternatives.

Never make a move without looking at your opponent's replies.

Trust calculation and worst case, not wishful thinking.

Don't let your plan blind you.

Embrace your mistakes or you will repeat them.

Never trade a promising attack for a small material gain or an unclear endgame.

Never concentrate on winning back sacrificed material.

If you have time, use it.

If you know you have found the best move, make it.

You are as strong as the moves you make.

Recommended Resources

Below are some of the resources I can recommend for improving your chess along the lines described in this book. It is by no means complete, and I am sure the reader will be able to find many other resources suited for the purpose.

General

Secrets of Modern Chess Strategy, John Watson (Gambit Publications 1999)

Chess Strategy in Action, John Watson (Gambit Publications 2003)

Excelling at Chess, Jacob Aagaard (Everyman Chess 2002)

Move Selection

How to Choose a Chess Move, Andrew Soltis (Batsford 2005)

The Improving Chess Thinker, Dan Heisman (Mongoose Press 2009)

Test Your Chess IQ, Larry Evans (Cardoza 2001)

Multiple Choice Chess, Graeme Buckley (Everyman Chess 2002)

Multiple Choice Chess II, Graeme Buckley (Everyman Chess 2003)

Opening

The System, Hans Berliner (Gambit Publications 1999)

Experts vs the Sicilian, Jacob Aagaard, John Shaw et al (Quality Chess 2006)

Understanding the King's Indian, Mikhail Golubev (Gambit Publications 2005)

Understanding the Grünfeld, Jonathan Rowson (Gambit Publications 1998)

Endgame

Silman's Complete Endgame Course, Jeremy Silman (Siles Press 2007)

Winning Chess Endgames: Just the Facts!, Lev Alburt and Nikolay Krogius (Chess Information and Research Institute 2005)

Dvoretsky's Endgame Manual, Mark Dvoretsky (Russell Enterprises 2006)

How to Play Chess Endgames, Karsten Muller and Wolfgang Pajeken (Gambit Publications 2008)

The Survival Guide to Rook Endings, John Emms (Gambit Publications 2008)

Excelling at Technical Chess, Jacob Aagaard (Everyman Chess 2004)

Imbalances and Planning

How to Reassess Your Chess, Jeremy Silman (Siles Press 1997)

The Reassess Your Chess Workbook, Jeremy Silman (Siles Press 2000)

The Method in Chess, Iossif Dorfman (Cloitre Imprimeurs 2001)

The Critical Moment, Iossif Dorfman (Game Mind 2002)

Test Your Positional Play, Robert Bellin and Pietro Ponzetto (Batsford 2003)

Combinations

Rapid Chess Improvement, Michael de la Maza (Everyman Chess 2002)

Forcing Chess Moves, Charles Hertan (New in Chess 2008)

Chess Training Pocket Book, Lev Alburt (Chess Information and Research Center 2000)

Chess Training Pocket Book II, Lev Alburt, Chess Information and Research Center 2008)

Winning Chess Tactics for Juniors, Lou Hays (Hays Publishing 1994)

Manual of Chess Combinations, Volumes 1A, 1B and 2, Sergey Ivashchenko (Russian Chess House 2002-2006)

Manual of Chess Combinations Volume 3, Alexander Mazia (Russian Chess House 2003)

Attack

Art of Attack in Chess, Vladimir Vukovic (Everyman Chess 1999)

The Attacking Manual: Basic Principles, Jacob Aagaard (Quality Chess 2008)

The Attacking Manual 2: Technique and Praxis, Jacob Aagaard (Quality Chess 2010)
Essential Chess Sacrifices, David LeMoir (Gambit Publications 2004)

Calculation

Excelling at Chess Calculation, Jacob Aagaard (Everyman Chess 2004)
The Inner Game of Chess, Andrew Soltis (Random House Puzzles & Games 1994)
Inside the Chess Mind, Jacob Aagaard (Everyman Chess 2004)
The Grandmaster's Mind, Amatzia Avni (Gambit Publications 2005)

Computer Resources

Fritz 12 (ChessBase)
ChessBase 11 (ChessBase)
Mega Database 2011 (ChessBase)
CT-ART 4.0 (Convekta)

YOUR BEST MOVE

"I look one move ahead... the best!" Siegbert Tarrasch

Chess is a wonderfully rich and complex game, but ultimately the goal can be simply defined as consistently finding the best move. If you are able to do this, you will win your games. However, the million dollar question is: how can we give ourselves the very best chance of doing so?

Per Ostman is convinced that there are three key elements: first and foremost, a structured move-by-move thinking process; second, the desired skills to execute this process; and finally, traditional chess knowledge we can build upon. Ostman examines these three vital building blocks which form the basis of what we need to master. He describes in detail a clear thinking process he has developed over several years as a chess teacher – a process to guide us in our ultimate search to find the best move.

- Improve your chess by structured move selection
- Numerous examples to illustrate clear thinking processes
- Covers calculation, planning and attacking skills
- Includes opening, middlegame and endgame play

Per Ostman is an experienced chess teacher and analyst. He has trained his son, Erik, to become one of the strongest junior players in Australia and has guided his school to continued success at state championships. He works as a Solutions Architect for Microsoft, and has also developed computer chess programs.

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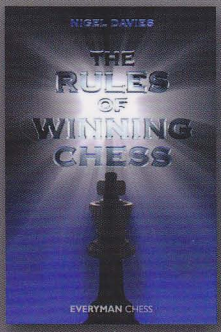

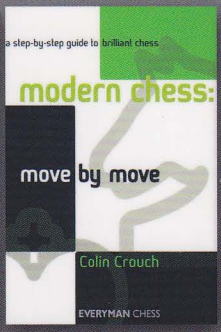

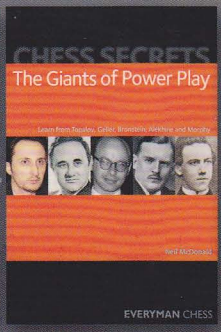

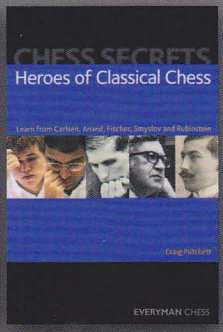

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