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Beyond Material

Ignore the Face Value of Your Pieces and Discover the Importance of Time, Space and Psychology in Chess

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Preface

Chess is a game of many laws and, perhaps, just as many exceptions. To help us comprehend such a complex game, we need some fundamental principles to rely on. When it comes to fundamentals, there is nothing more tangible and intuitively valuable than material. We are instinctively attracted to the idea that something can be gained, measured, and traded.

Therefore, we habitually assess our chances in a chess game in terms of material balance on the board, and often form plans and carry out operations with the aim of tipping this balance into our favor. The modern chess lingo even has us evaluating positions in decimal numbers that indicate a material advantage, so it is not uncommon to hear someone complain: ‘Man, I blew a 0.70!’, letting the world know that they misplayed a large positional advantage.

The materialistic value system generally works well in chess. However, it is also sort of like ‘The Matrix’ – obscuring deeper chess truths by its outwardly pleasing design. The motivation for this book was to go beyond material and uncover these truths by exploring the interconnection of material between the other two fundamental principles in chess – space and time, as well as examining our subjective perceptions of material in depth.

Hopefully, after reading this book the reader will have:

- reconsidered the well-known ‘truths’ about the values of the pieces;
- improved his/her understanding of subjective and psychological issues related to material, such as: attachment to material, risk-taking, psychological aspects of sacrifices and many others;
- developed a new or improved perspective on chess in which material is seen as equivalent, and not superior to the major chess principles.

To achieve these goals, Beyond Material has been divided into six chapters that deal with the same number of major themes and many other sub-themes within the chapters. All chapters contain instructive examples from contemporary and classical practice alike. Naturally, I have chosen many games of world-class players, but also included a fair number of less known, yet highly illustrative games, as well as some personal examples.
Beyond Material

To give you a quick overview of the book: in the first chapter, we discuss the human attachment to material from several angles and lay the foundation for a ‘non-materialistic’ way of thinking that is necessary to fully appreciate the material (no pun intended!) from the chapters that follow.

In Chapter 2, we take a closer look at why traditionally-accepted values of pieces fluctuate in different circumstances and how this can help us evaluate positions more accurately, rather than by using a simple materialistic approach.

Chapters 3 and 4 are devoted to the exploration of material as it relates to time and space, respectively. It is at this point that we are ‘cracking the Matrix’ by throwing off the shackles of limited materialistic thinking and looking beyond the piece count to understand deeper chess truths about positional play, strategy, initiative, and attack.

It is impossible to get a full picture of this process without taking human psychology into account, so we look at psychological aspects of non-materialism in Chapter 5. By disturbing the material balance, we can often put our opponent under all sorts of psychological pressure, change the trend of the game favorably, and even get a psychological edge in the opening.

In the final chapter, we take a dialectic approach to the topic of greed for material in chess by examining cases when it is beneficial to be greedy and, in contrast, when it is unfavorable. It is meant to be a thought-provoking chapter that may entice you to challenge your own assumptions and habits when it comes to taking and giving material.

To make things more interesting, I have added a test section with 10 positions at the end of each chapter, except for Chapter 1. Thus, there are 50 test positions in total. The goal of these exercises is to help you practice non-materialistic ways of thinking and the evaluation of positions with material imbalances.

My expectation is that a reader of any level from a decent club player to a grandmaster can have a good reading experience and get something practical out of this book. The concepts presented here are relevant to all chess players, although a reasonable level of chess understanding and experience are required to appreciate them fully.

Writing this book was a great pleasure because the notion of (non-) materialism in chess has interested me for a long time. I have been collecting instructive material and juggling ideas for this book for years, although it wasn’t until late 2018, when I was offered to actually write about it by New in Chess, that I approached the subject systematically. I
was delighted that I had been allowed to explore this fascinating topic in a great amount of detail, and for this I am also grateful to the editorial staff. As far as I know, the subject of material in chess has not been studied extensively in a single work before, so I hope that this book will be a good reference point for the future.

Coincidentally, while I was putting the final strokes on this work, the intriguing book *Game Changer* by Matthew Sadler and Natasha Regan – a story about the success of the self-taught chess program AlphaZero – came out and received great attention from the chess public. To be honest, I hadn’t paid much attention to AlphaZero’s games (I know, shame on me) before this book was recommended to me by my publisher Allard Hoogland, even though it had soundly beaten Stockfish, the strongest chess engine at that point.

This was the book that provoked probably the most ‘wow’s’ and ‘aha’s’ of any book that I have read recently, because AlphaZero’s playing style and concepts were, firstly, very impressive from a chess player’s point of view, but, secondly, also very much in tune with the ‘beyond material’ approach that I advocate in this book!

For instance, on page 402 of *Game Changer*, in a paragraph titled ‘Re-evaluation of compensation and initiative’ the authors conclude that ‘… AlphaZero’s games will cause a readjustment in what humans consider to be acceptable long-term compensation for sacrifices. AlphaZero’s approach has shown that many material sacrifices for the initiative can be objectively correct even against most superlative defensive play.’

AlphaZero is also described as: ‘not tied to keeping the material balance (page 76)’, ‘not afraid to sacrifice material… to open lines or diagonals against the opponent’s king (page 98), as well as implementing ‘new strategies based around piece mobility (page 402). There is even a full chapter (11) in the book that is subtitled *sacrifices for time, space and damage*, which is strikingly similar to the ideas that I talk about in Chapters 3 and 4 in this book.

In a way, the convincing victory of AlphaZero’s strategically intuitive and non-materialistic playing style over the machine-like, cold and calculated materialistic approach of Stockfish supports the key concept behind this book. This is not to say that ‘materialism’ in chess is wrong. It simply points to the fact that we are constantly uncovering new truths about this deep and wonderful game. May this book serve you well in this quest.

Davorin Kuljasevic, Plovdiv. July 2019
CHAPTER 2

Relative value of material

As beginners, we were taught that the approximate values of pieces are one point for a pawn, three pawns for the knight and bishop each, five pawns for the rook and nine pawns for the queen. Most chess players routinely go by this valuation. They estimate the benefits of piece trades in these terms, and over time it becomes ingrained in their chess DNA, so to speak. Having such a static valuation method is necessary because we need a starting point.

However, things are never that simple in practice.

You have surely had situations when you disagree with another person about the evaluation of a certain position. He believes that his exchange sacrifice promises a strong initiative against your exposed king and shaky pawn structure. You, on the other hand, don’t think much of his empty threats and are sure that you will convert the extra material in the long run. You analyze the position for quite some time, trying to prove each other wrong. Unable to come to a clear conclusion about the objective evaluation of the position, you eventually decide to turn the almighty engine on, hoping that it will side with you. Alas, the screen shows the notorious 0.00!

How is it possible for individual evaluations of the same position to differ so much?

As we concluded in the introduction, chess players differ in their attitude toward risk, attachment to material gains, understanding of non-materialism and other subjective factors. In addition to that, the evaluation of positions with imbalanced material is difficult, because there are no clear-cut formulas that determine the exact impact of non-material factors on the value of material. We cannot say, for example, that a long-term initiative is worth one pawn or that the harmony of your pieces is worth two pawns in every single instance. These non-material assessments depend on the context, your skill, your opponent, and many other factors. It is a complex process and, I would dare to say, an art in itself.

The purpose of this chapter is to help you with this process by exploring typical situations in which your pieces or your opponent’s pieces become more or less valuable than they normally are. I believe that if we get a better idea about how to assess the value of pieces in unbalanced positions, it becomes easier to make non-materialistic decisions and anticipate such events in a game.
Which factors cause the value of pieces to fluctuate? I would like to enumerate them here for easy reference:

• piece positioning and centralization;
• piece mobility;
• development;
• coordination with other pieces;
• local significance;
• harmony (global significance).

This may not be a definitive list, but these are the most important factors. We shall look at concrete examples from which it will become clear how one or more of these factors influence players’ perceptions about the value of material and, consequently, their decisions in critical moments of the game.

I have divided the chapter into five sections corresponding to the prevailing theme in the illustrative games. In some games, you might notice elements of several themes. For example, a piece on the rim often implies a lack of coordination with other pieces. A superior harmony of your pieces can be a result of the opponent’s lag in development, and so on. Such overlaps are natural and when they happen, I will try to point them out.

Obviously, the underlying theme in all the examples is non-materialism. In many situations, it is necessary to sacrifice material to get the most value from your pieces or to diminish the value of your opponent’s pieces.

**Misplaced piece(s)**

Some events and situations stay carved in your memory for life as vividly as if they happened just yesterday. One such situation happened during my junior days. My club colleague lost an important game in a team competition, so our coach was visibly upset by the result. I joined their game analysis, also curious as to what had gone wrong in the game. I remember that it was a Closed Sicilian type of position where Black had planted his knight on the strong d4-square.

White, naturally, played ♘c3-d1 to kick out the knight with c2-c3 and my friend continued according to the script with ...♖a8-b8, preparing the typical pawn storm with ...b7-b5-b4 etc. Our coach made White’s next move c2-c3 on the board, looked at the score-sheet in utter disbelief and asked my friend: ‘You played ...♘b5??’. The young fellow tried to explain why he chose the b5-square for the knight instead of simply trading knights on f3 or retreating to a more natural square like c6, but he was
interrupted by the coach: ‘No, no... do you know what it is like to put your knight on b5 in this position? It is like...’, and then he searched for an object nearest to the chessboard – it happened to be an apple – replaced the knight with an apple and concluded: ‘... your knight is as useful on b5 as this apple.’ I think that we both got the point.

Misplaced pieces can have a strong impact on the game, sometimes even a decisive one. It takes skill and a great amount of knowledge to be able to put your pieces on the right squares throughout the game. In the heat of the battle, even strong players sometimes forget how misplacing their pieces can have undesired consequences. It may seem like it is only temporary, but sometimes one does not get another chance to improve the misplaced piece and restore harmony. A quick action by the opponent can throw your army into disarray.

Game 18
Vladimir Simagin
Boris Spassky
Moscow ch-URS 1955 (11)

At an earlier stage of the game, grandmaster Simagin had used Réti’s plan: ♖a1-a2, ♕d1-a1, in an original way. Thanks to this maneuver, White’s control over the important a1-h8 diagonal is indisputable. However, this plan also has a downside that Spassky underlines with his next vigorous move.

18...♕e4!

Two of the strongest white pieces (queen and rook) are decentralized and somewhat awkwardly placed. Because of this, Black energetically tries to open up a battlefield on the other side of the board. He is not afraid to give up a pawn for that purpose.

19.♗xg7

Simagin plays the principled move, even though it contains a fair amount of risk for him. Much safer, but also insufficient for an advantage, was 19.♘d2 ♕g6 20.♘xe4 dxe4=.

19...♕g6

This is the point – Black prepares a sacrifice on g3 with a tempo.

20.♗e5

In the post-mortem, Simagin admitted that his initial intention had been to allow the sacrifice on g3: 20.♗d4 ♖xg3 21.fxg3 ♖xg3 22.♗f1!? ♖xf1+ 23.♔h1, when it seems that White wins material because Black’s knight has no good squares to escape. However, he realized too late that Black counters with 23...♗c2!, threatening checkmate on g2. After 24.♖xc2 ♕xc2 25.♗b2 ♕xb2 26.♗xb2 ♖xe3, Black is winning.
Black has obtained a serious initiative for the sacrificed pawn. White has to play precisely now to find the right, but narrow path out of trouble. As it usually happens, it is not easy to re-adjust to a new situation once your original plan did not work out, and here Simagin falters.

22...f6 23.♘f3 ♘c3 24.♗h5

This was White’s idea – he protects e3, opens the second rank for his rook and attacks his opponent’s rook at the same time. However, it runs into a nice refutation.
Chapter 2 – Relative value of material

The exchange of knights would be a relief for Black. However, Black’s knights are even more misplaced now. A brilliant player like Ivanchuk does not miss the opportunity to punish such a mistake in style.

21. ♘d5!!

When non-materialism becomes your second nature, such moves are easy to spot and playing them becomes a matter of principle.

White gets a strong attack for the sacrificed piece, because both black knights are far away from the kingside and cannot participate in the king’s defense.

21...exd5 22. ♗xd5+ ♔g7

In case of 22...♔h8, White obtains a winning attack with 23.♕f3, threatening 24.g6+. Black’s defenses are insufficient:

A) 23...♗e8 24.♗f5 ♘c5 25.♖h6++;
B) 23...♕e8 24.♖e2! ♘c6 25.♗e1 ♘c5 26.♗xe7! ♘xe7 27.♗d6++;

23.♔h1?!

This is not the most forceful move and it gives Black just enough time to consolidate his defense. Time is an essential element in chess and a single tempo can make a world of difference. We will talk more about that in the next chapter.

It was stronger and more natural to bring the queen into the attack with 23.♕f3. If Black tries to get his knight back into the game with 23...♗c6, then 24.♖h3 ♔f7 25.♗g6! gives White a winning attack, as the reader can ascertain on his own.

23...♗e8?

Over-protecting the e7-bishop can be useful in some variations, but this move does not contribute to the defense of the weak black king in any way. He had to use this opportunity to re-centralize one of his knights and therefore 23...♗c6! was the right move. Now after:

A) 24.♕f5+ ♔h8 25.♖h6 ♕g8 26.♕xg8 ♖xg8 27.♕f3 ♔g8; or
B) 24.♖f3 ♘e5 25.♖g3 ♘g6, Black would be just in time to patch up some holes around his king with his previously misplaced knight.

24.g5!

23.♗h1?!

It is completely natural to open more files and diagonals on the kingside, especially after Black has wasted time moving his rook from f8 to e8. Now ♕d1-h5 cannot be stopped and Black will be helpless.
against White’s attack. His three pieces on the other side of the board will remain mere spectators until the end of the game.

24...♔h8
24...fxg5 25.♕h5 gxf4 leads to a mating attack for White: 26.♖g1+ ♔h8 27.♕g6+ etc.

25.♕h5 ♖g8 26.♗xg8 ♖xg8 27.g6 ♕c6+ 28.♖e4!? ♕xe4+ 29.dxe4 hxg6
30.♖xg6+ ♔h8 31.♕h5+
Black resigned in view of 31...♗g7 32.♖g1+ ♔f8 33.♕h6#.

Game 20
Mateusz Bartel 2608
Davorin Kuljasevic 2546
Biel 2017 (7)

If we apply our discussion about the relative value of material to this position, then Black is obviously ahead. The difference between the activity of the two sides in this endgame is palpable. White’s last move was 35.♘a4, attacking the knight on d4. I responded with 35...♕xe3? and a draw offer, which was accepted. This was obviously a poor decision on my part for more than one reason. Immediately after

the game, my opponent pointed out a strong move:

35...♖xe3!,
which absolutely had not crossed my mind. The conditioned reflex to protect the rook had blocked my imagination! However, this exchange sacrifice poses some serious problems for White. The point is that Black opens up the game in the center exactly when both White’s knight and bishop are misplaced on the edge of the board. This is the same concept that Ivanchuk used against Alekseev, only in a different setting. White faces a difficult choice now.

36.♗xe3
is the best. White lands himself in trouble if he takes with the pawn: 36.fxe3 ♖xe3! 37.♖xe3 ♕xe3. Black’s pieces are running rampant in the center of the board, and White should therefore probably return the exchange with 38.♗c3 (in case of 38.♖b2,

White’s pieces look ridiculous after 38...♗g6!, as pointed out by Bartel; 39.♗c3? does not work, due to 39...♗c2 40.♖b1 ♕d4→) 38...♗xd2
39.♗xd2+, and hope for the best in
the pawn-down, opposite-colored bishops endgame.

36...♖xe3
And to save the game, White would have to find a non-materialistic solution:


His pieces are completely misplaced. 39...♖e6

39...♗g6 40.♔e2! ♖xd3+ 41.♖xd3
Despite the extra pawn, Black will most likely not be able to break the fortress that White can set up:

41...♖e6 42.♖e4 c6 43.♗b2 a5 44.♖d3 h5 45.g4=
It should be noted that the more positional alternative 35...♖f8!? also keeps Black’s edge after 36.♕g1 ♖e4 37.b4 (or 37.♗c3 ♖e8 38.♕a4 ♕e6=) 37...♖c6 38.♕c3 ♖e8 39.bxc5 dxc5 40.♗cd5 (the move that bothered me during the game) 40...♕f5!.

In the next game, we will see how the current World Champion, Magnus Carlsen, skilfully takes advantage of misplaced white pieces to score a victory in an equal endgame.

Game 21
Wei Yi                2696
Magnus Carlsen        2855
Bilbao 2016 (2)

White is about to regain the sacrificed exchange, with an approximately equal endgame. From several possible continuations, Carlsen chooses the strongest one in a practical sense.

29...♖d8!
The alternatives:
A) 29...♕xa2+ 30.♔b2 ♕b4 31.♕xc7 ♕xc7 32.♖f6 ♖f8 33.♕g5=; and
B) 29...a5 30.♕xc7 ♕xc7 31.♖f6= would likely lead to a quick draw.

30.♗b2
30.♕xc7?♕xc7 31.♕xa6 ♖d1+ 32.♔b2 b4!! is an important point.

30...♕d5
Very importantly, ♖b6-f6 is not possible any more.

31.♕xc7 ♕xc7 32.♕a6 ♖b7!
Carlsen sacrifices a pawn to centralize his pieces and force the decentralization of White’s rook. Non-materialism at work!

33.\textit{Ha3} 

This is an awkward square for the rook. The other option was 33.\textit{Ha5} \textit{b}6 34.\textit{b}4 \textit{xb}4 35.\textit{Ha}3=, when the third rank would be open for the rook. Truth be told, this would be a small achievement for Black as he would disconnect White’s queenside pawns. Still, a draw would be the most likely outcome, of course.

33...\textit{Ne}3!

Carlsen wastes no time and makes threats while White’s pieces are uncoordinated.

34.\textit{c}4!

The best reaction. White cannot play 34.\textit{g}3 due to 34...\textit{d}1+ 35.\textit{c}1 \textit{c}3!, and he loses tactically because of the misplaced rook on a3! 36.\textit{d}2 \textit{xd}2! 37.\textit{xd}2 \textit{b}1+ 38.\textit{c}1 \textit{xa}3 39.\textit{b}2 \textit{b}4—. 

34...\textit{bxc}4

35.\textit{e}5?

Carlsen is extremely strong when it comes to posing practical difficulties to his opponents, even (or I should say, especially) in simple positions. Among many possibilities, Wei Yi chooses the wrong one. White should not have wasted time bringing his rook back into the game, so 35.\textit{b}4 was the right solution: 35...\textit{xg}2 36.\textit{c}3 \textit{f}5 37.\textit{xc}4, and White’s chances are no worse than Black’s in this sharp endgame.

35...\textit{d}2+

Now Black’s rook becomes very active on the second rank.

36.\textit{c}3 \textit{c}2+ 37.\textit{d}4

I wonder if Wei Yi initially intended to play 37.\textit{b}4 \textit{d}5+ 38.\textit{c}5 and missed 38...\textit{c}3!, when the knight cannot be taken: 39.\textit{xd}5 \textit{d}2+ 40.\textit{e}4 \textit{c}2 41.\textit{d}3 \textit{xd}3—.

37...\textit{f}5+ 38.\textit{d}5 \textit{c}3

The consequences of White’s mistake on move 35 become obvious now. Stopping the dangerous passed c-pawn becomes a real challenge with the misplaced rook on a3.

39.\textit{c}5!?

In a difficult position, Wei Yi does not lose his spirit. With this move, he sets up a lethal trap for Black.

39...\textit{d}6!

Carlsen is up to the defensive task. 39...\textit{d}2? 40.\textit{c}6 allows serious
counterplay against the black king. If 40...c2?, White checkmates after 41.♖a7+ ♔c8 42.♔b6 c1♕ 43.♖c7#.

40.♘c6
As before, 40.♖xd6? loses to 40...♖d2+ 41.♔e7 c2.

40...♔e4+ 41.♖b5 ♔c7!
The point. Black’s king escapes the mating net and he should be winning now.

42.♖a7+ ♔d6 43.♖a4 f5 44.♔b6 ♖xg2 45.♖d4+ ♔e6 46.a4 ♖a2?
An unnecessary waste of time. The immediate 46...♖b2 was much better.

47.a5 ♖b2 48.♔c7?
Wei Yi fishes for tactics again, but he misses his opponent’s counterblow. After 48.b4! ♔d6 (or 48...c2 49.♖c4) 49.♖d3 c2 50.♖c3, the game would have been far from decided.

48...♖c5!
Carlsen finds the winning tactical sequence. White’s idea was 48...♖xb3??
49.♖xe4+! fxe4 50.♖d4+ ♔d5 51.♖xb3 ♖c4 52.♖c1 and 48...c2 49.♖c4=.

49.♖c4
It is too late for 49.b4 now, since after 49...c2 50.♖c4 ♔a6+ 51.♖d8 (51.♖b6 ♖xb4!—+) 51...♖d5 52.♖c3 ♔f4!, the other passed pawn decides the issue after 53.b5 ♔f3! 54.bxa6 ♔2 55.a7 ♔f1.

49...♖a6+ 50.♖b6 ♖xb3+ 51.♖xa6 ♔d5—+

This is the point of Black’s combination. White’s rook can no longer remain behind the passed pawn. Carlsen’s magic hands in tactical exchanges in small areas of the chessboard sometimes remind me of Lionel Messi’s genius solutions in tight spaces on the football field.

52.♖b4 c2 53.♔e7+ ♔c5 54.♖xb3 c1♕ 55.♖b6 ♖c4+ 56.♖b7 ♖e4+ 57.♖c6 ♖d5 58.♖c7 ♖d6+ 59.♖b7 ♖d7+ 60.♖b8 ♔f4 0-1

Game 22
Hrant Melkumyan 2583
Wesley So 2656
Moscow 2010 (5)

Speaking of misplaced pieces, in this position there are quite a few, especially if you look on Black’s side
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of the board. With his last move, the Armenian grandmaster playing White offered an exchange of the dark-squared bishops. However, he probably underestimated the following non-materialistic solution by young Wesley.

22...♖xe1!

A simple exchange of bishops with 22...♘xe1 23.♖xe1 ♖xe1 24.♖xe1 would have been completely fine for White. Black cannot win the f4-pawn with 24...♕xf4?, because the only misplaced white piece would join the game with decisive effect: 25.♗c8! ♕c7 26.♗e7+ ♕h8 27.f1 ♕xd4 28.♖xf7+.

23.♖xe1 ♕xf4

By sacrificing the exchange, Black achieved domination on the dark squares. His only problem is that besides the queen and bishop, all his remaining pieces are placed poorly. This becomes even more obvious after White’s next move:

24.♖e8

It seems like White has enough counterplay to neutralize Black’s attack. But Wesley has seen further.

24...♕g3+ 25.♔h1 ♖h3+ 26.♖h2 ♦f3+ 27.♗g1 ♕xg4+ 28.♖h1 ♔f3+ 29.♗g1 ♕g4+ 30.♖h1

Black’s useful checks have run out, while White also threatens to win the b8-knight. But that does not mean that Black does not have more aces up his sleeve.

30...♖e7!

Wesley So mobilizes his passive rook at the right moment. There is no need to lament about the knight on b8 – Black can conduct the kingside attack without it. The alternatives are much less impressive:

A) 30...♕xd4? 31.♖xf8+ ♕xf8 32.♖xb8 ♕e7 33.♖xa7+; B) 30...♗d7 31.♖f1++; and C) 30...♕f3+ 31.♖g1=.

31.♖xb8

31.♗xe7 ♗xe7 32.♖xb8 ♕f3+ 33.♖h2 ♕xd3++.

31...♖f3+ 32.♖g1 ♕g4+ 33.♖h1

After some checks to gain precious time on the clock, Wesley So plays a quiet, yet extremely powerful move that dispels White’s hopes of creating counterplay:

33...f5!!

How often do you see such quiet prophylactic moves (the idea is to clear the f7-square for the king) when one is down a rook?
The problem for White is that he has two misplaced pieces on the queenside and thus he can do nothing to repair the situation around his king, even with an extra move.

We can understand why So moved the f-pawn forward from this variation: 33...♗g3?? 34.♖xf8+ ♔xf8 35.♕h8#. 34.♖g1

34...♗g3 was a deadly threat, but this is also not the solution to White’s problems. 34.♗f1 is met with 34...♗g3, and now 35.♖xf8+ does not work as it did on the previous move: 35...♖xf8 36.♔h8+ ♔f7=.

34...♕f3+

Now ♔h1-g1 is no longer an option, so White has to move his queen from h2.

35.♔g2 ♘xd3

Black has regained the sacrificed material and his position is completely winning.

36.♕h2 ♗e2 37.♖xf8+ ♗xf8

38.♗d7+ ♕e8 39.♕h8+ ♕d8! 0-1

So avoided the last trap: 39...♖xd7?? 40.♖d6+ ♕e8 41.♖xg6+.

**Uncoordinated pieces**

In the examples from the previous section, we have seen how one or two misplaced pieces can be problematic. However, if most of your pieces do not communicate with each other, then you might have an even bigger problem on your hands. One of the classic examples of the lack of piece coordination is the following K-K game.

**Game 23**

**Anatoly Karpov** 2725  
**Garry Kasparov** 2805

Linares 1993 (10)

The opening has obviously gone wrong for Karpov and his position is not enviable. However, his next move

19.♕g1?!

is not a pretty sight. Vishy Anand, who tried to defend White’s position in the analysis, summed up his sentiments in one sentence: ‘I rest my case!’

19.♖d3 was, at least, more aesthetically pleasing than the text. However, Black has a nice forced win: 19...♖a6 20.♖f3 ☐de5! 21.fxe5 (21.♖xd8 ☐xf3+ 22.gxf3 3.♖xe8) 21...♖xe5 22.♕g3 ☐d3+ 23.♖xd3 ☐xd3 24.♗c1 ☐xb1 25.♖xa2 ☐xa2 26.♖c4 3.♖d4 27.♖f1 ☐b1.

19...♕f6 20.e5 ☐e4 21.h4?

It is very difficult for White to complete his development. With his last move, Karpov may have
planned to activate his rook via h3 and prevent the ♕h4 check. However, this move somehow leaves a bad aftertaste. It is better to ‘admit the mistake’ and re-centralize the queen with 21.♕e3, when Garry Kasparov gives the following line: 21...♗b7 22.♘d2 ♗xd2 23.♖xd2 ♘xd2 24.♖xd2 ♕b6 25.♖xd8 ♖xd8 26.♘c1 ♕d5--+. White, at least, has a fighting chance here, compared to the game.

21...c4!
Kasparov is as energetic as ever. If White takes the c-pawn, 22...♕a5 will follow, with a decisive attack. It is clear, then, that Black is completely winning, even though material is nominally equal. However, Karpov’s answer, and the position that arises, will be remembered in chess history as one of the most peculiar instances of poor piece coordination.

22.♘c1

White’s pieces look as if they were taken from a starting position of Fischer Random Chess.

22...c3!
Flashy, although not the only way to finish the game.

23.♘xa2 c2 24.♖d4 cxd1♖+ 25.♘xd1

25...♗c5!
Kasparov trades the only active white piece. White’s problems will not be alleviated even after the queen trade.

26.♖xd8 ♖xd8+ 27.♗c2 ♖f2 0-1
Karpov lost on time. I would like to show two nice forced lines:

28.♖g1 ♖f5+ 29.♗b2 (29.♗c1 ♖d1+ 30.♗b2 ♖xb1#) 29...♖d1+ 30.♖a1 ♖xb3#.

A cute final picture that should serve as a warning as to what might happen if you don’t develop and coordinate your forces. It is always less painful to learn from the mistakes of others!
Strong players can intuitively sense when their opponent’s pieces fall ‘out of sync’. For example, several pieces end up in unusual positions or become loose and exposed to tactical shots. In such cases, it is important to act energetically to exploit the disorganization in your opponent’s camp, even if it implies material sacrifices. Otherwise he might get off the hook. The following two games are good examples of this strategy.

38. ecx1!
It is much more important for White not to allow Black to reconnect his pieces with 38...e6 (now this runs into 39.d5), than to try to defend the d4-pawn.

38...xd4?
Black is not ready to enter a tactical exchange with such poor piece coordination. He had to play 38...g7, although after 39. d2 a8 40.a4! xxa4 41.d5, White’s initiative is very strong, nevertheless.

39. d5!
A strong tactical resource that may have gone unnoticed by Black. His position collapses now.

39...h4
The tactical point is 39...xd5 40. xh5+ g7 41. h7+, and White wins the queen. Just a few moves before, the queens were firmly separated by three pieces on the a1-h8 diagonal, so Black may not have suspected that he could lose his queen in such a way.

40. xxe4!
Another strong tactical shot. Black is helpless against White’s threats.
because his pieces are scattered around the board with no purpose.

40...\textit{dx}e4 41.\textit{dx}e4 42.\textit{exe}5 \textit{wh}4 43.\textit{exe}4 \textit{wg}5 44.\textit{f}6+ \textit{h}6
45.\textit{e}e8 \textit{f}6 46.\textit{wb}4 \textit{e}6 47.\textit{xe}6 \textit{exe}8 48.\textit{exe}8 \textit{exe}8 49.\textit{f}8+ \textit{h}7 50.\textit{exe}8 \textit{wc}5 51.\textit{f}7+ \textit{h}6
52.\textit{xf}6 \textit{xa}3 53.\textit{f}4+ 1-0

Game 25
\textbf{Jorge Sammour Hasbun} 2460
\textbf{Davorin Kuljasevic} 2464
\textbf{USA tt final ICC 2007 (1)}

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{chess_board.png}
\end{figure}

This position arose from the French Defense. Sensing a lack of coordination among White’s pieces, I decided that it was the right time to open the center.

\textbf{15...\textit{d}xe}5!

Black could also have included 15...a5 first, but this thematic sacrifice just begs to be played either way.

\textbf{16.\textit{d}xe5 \textit{exe}5}

The rook on h3 and the knight on g3 are completely misplaced now (this might have not been the case if the position had remained closed), and White will struggle to coordinate them with the rest of his undeveloped forces.

\textbf{17.\textit{a}2!}

White protects the vulnerable f2-square in an interesting way, activating his idle rook.

17.\textit{b}2 runs into 17...\textit{x}f3! 18.\textit{d}4 (18.gxf3? \textit{w}e3+ 19.\textit{e}2 \textit{d}3+ 20.\textit{d}1 \textit{xb}2+ 21.\textit{x}b2 \textit{f}6=+ ) 18...\textit{x}f1+
19.\textit{x}f1 \textit{b}5+.

\textbf{17...\textit{xf}3+ 18.gxf3 e5=}

Black activates the ‘French bishop’ and forms a strong pawn center. His advantage grows move by move.

\textbf{19.\textit{h}h2 \textit{e}6 20.\textit{a}g2}

As one of my club colleagues would say, White’s kingside looks like ‘a furniture store’ – a lot of pieces sitting in a small area without having much space to move around. Black, on the other hand, has a very harmonious piece set-up.

\textbf{20...\textit{f}7 21.\textit{b}2 a5!}

The principled move, not fearing any ghosts. Black needs to open up the queenside to get to White’s king.

\textbf{22.bxa5}

White’s attack after 22.\textit{xe}5 axb4 23.\textit{h}5 does not bring success:

23...\textit{g}6 24.\textit{d}3 \textit{bxa}3 25.\textit{x}g6 \textit{hx}g6 26.\textit{x}g6+ \textit{f}8=+.

\textbf{22...\textit{xa}5 23.\textit{d}3 \textit{d}6?!}
Chapter 2 – Relative value of material

Missing a nice forced win. Black had to think non-materialistically and sacrifice the pride of his position, the pawn center, to attack the king: 23...e4! 24.fxe4 dxe4 25.♘xe4 ♖af5!.

To be honest, I had missed this idea. White cannot defend the f1-bishop in a good way due to his poor piece coordination: 26.♖h1 (26.♖f2 ♖xf2 27.♖xf2 ♖xf2 28.♕xf2 ♖xb2—+) 26...♗xh4+! 27.♘g3 ♖f3—.

24.♘h5 ♕c7??
A very sloppy move. 24...g6, followed by 25...♗f5, would have kept the lion’s share of Black’s advantage. 25.♖xg6+ does not work due to 25...hxg6 26.♖xh6+ ♔f8 27.♖xe6 ♔b4+=.

My opponent saw this nice winning tactic before he played 27.♘e4, with little time on the clock, too. Well done.

28.♗e7 29.♘xg7+ ♖xg7 30.♖xg7+ ♔f8
30...♖xg7 31.♗e8# is the point.

31.♘xe7  ♔xe7 32.♖xe7+ ♔xe7
33.f4+-

After the dust has settled, White has obtained a winning endgame. This was a painful loss.

33...♗e6 34.♗g3 ♔d6 35.♖d3 ♔h6
36.♗d2 ♖a8 37.♗e2 ♖g8 38.♗xd4 ♖g4 39.♗f2 ♖e7 40.♗e4 b5 41.♗e3 ♖c4 42.♗d4 ♖g8 43.♗f5+ ♔d7
44.♗xh6 ♖e8 45.♗g4 ♔d6
Black resigned.