Tiger's Chaos Theory

By

Tiger Hillarp Persson

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Preface

"Though this be madness, yet there is method in't" – Hamlet

What started out as a book about creativity ended up as something else – but not quite. It is a book about navigating chaos, calibrating your intuition in outrageous situations; about the limits of the possible, and about spotting zebras. I believe I have an obsession with queen sacrifices, and no one will doubt me at the end of this book.

Historically, intuition has often been contrasted with logic, and seen as a weaker, whimsical and less valuable version of the real thing. In chess, we cannot do without intuition. I will argue that there are certain things intuition should be used for, and others that it should not be used for. I hope to help you improve your intuition in certain areas in which calculation may previously have seemed like the only choice.

There are numerous situations where we subconsciously filter out good moves because they come into conflict with our intuition. In *Chess for Zebras*, Jonathan Rowson quotes a Sufi saying: *"When you hear hoofs beat, think of a zebra"* to illustrate "being more open to experience and less constrained by convention" and thus "allowing yourself to think differently." For a long time, I was very much into zebras; I was looking for them everywhere, and it was my ambition to become the best zebra-spotter you had ever heard of. In one sense, this book is a guide to recognizing and handling rare types of zebras. Your intuition is likely to generalize and recognize the sound of horses – but if you calibrate your intuition, you will start to detect the subtle difference in sound between horse and zebra hoofs.

Some chess players seem to bend the rules again and again, producing moves that we do not understand, at least at a glance. The creativity shown by the likes of Morozevich and Ivanchuk is often credited to "genius" – and that may well be a part of it. However, creativity is also a learnable skill to some extent. Players who make a habit of looking "outside the box" will eventually make their box bigger. When one of these players carries out an amazing move or concept which you don't understand, the explanation might be that what lies outside your box is inside theirs.

For more than twenty-five years I have collected games that challenged my perception of chess, and over that period I have slowly changed my way of thinking about the game. I used to seek chaos for chaos's sake, but nowadays I rely more on my ability to actually evaluate the consequences of pressing the chaos button. I have arrived at some kind of theory of chaos, and although it is neither complete nor clear to me, I want to share the ideas I have formulated.

I believe the potential to do something genius-like is within the reach of anyone – but it does take effort to reach for it. In *Stiller* by Max Frisch, the main character reflects on a person who he "cannot stand", who is "more intelligent" than himself, but only "uses his intelligence to avoid mistakes" (all freely quoted from my memory). I will try to push you away from such an attitude, towards madness. But I promise there will be method in't.

Tiger Hillarp Persson
Malmö, May 2024

Chapter 4

When 5+5>10

"'The rook is my favourite piece,' she said. 'It's the one that you think you don't have to watch out for. It is straightforward. You keep your eye on the queen, and the knights, and the bishop, because they are the sneaky ones. But it's the rook that often gets you. The straightforward is never quite what it seems.'" – Matt Haig, *The Midnight Library*

A rook is a piece that gets stronger as the game goes on. It excels when the clutter of the middlegame leaves the board to reveal a scenic endgame, with open pathways stretching as far as the eye can see. Then there are those extreme situations when two rooks join forces along a file or rank, where their combined strength turns them from mere turrets into creatures of myth. Along open files, they rule. But it is when they reach the last ranks of the opponent's position that they gain an almost Hegelian   the-whole-is-greater-than-the-parts strength that is hard to oppose. How do we go about evaluating such situations more precisely?

Vasily Smyslov – Mikhail Tal

Moscow 1964

1.c4 g6 2.♘c3 ♗g7 3.g3 c5 4.♗g2 ♘c6 5.b3 e6 6.♗b2 ♘ge7 7.♘a4 ♗xb2 8.♘xb2 0–0 9.e3 d5 10.♘f3 ♘f5 11.0–0 b6 12.♘a4 ♗b7 13.cxd5 exd5 14.d3 ♕f6 15.♕d2 ♖ad8 16.♖fd1 ♖fe8 17.♖ab1 ♘d6 18.♘e1 d4 19.e4 ♕e7 20.♘c2 f5 21.exf5 ♘e5!? 22.f4 ♘f3† 23.♗xf3 ♗xf3 24.♖e1 ♕e2!? 25.♖xe2 ♖xe2

Without stopping to calculate in any detail, how would you intuitively evaluate this position?
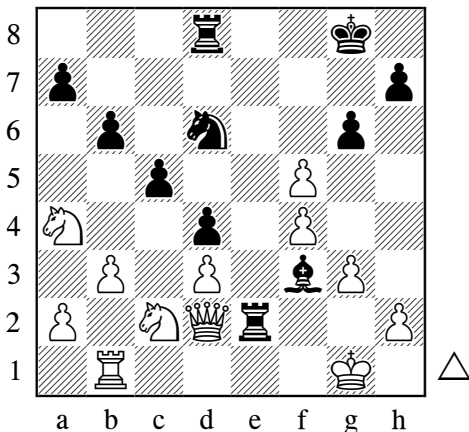
Regarding positions such as this one, I have many a time said something like, "You feel that Black must have full compensation." With the passage of time, however, I have come to think that "It is quite possible that Black has full compensation, and more" is a better intuitive evaluation. It is a subtle distinction, but it is better to keep as open a mind as possible before you start working on the minutiae. If your initial reaction to the above position was to think, "I cannot believe Black can have enough for the queen", it means that you have to work on your intuition. As we will see, in the event that White insists on holding on to the queen, Black can usually force a draw at the minimum.

26.♕c1?!

We will focus on this critical but risky continuation, where Black must prove the value of a rook versus a queen.

In the game, Smyslov bailed out from the complications with 26.♕xe2 ♗xe2 27.♘b2 gxf5, but the endgame proved to be tricky. 28.♖e1 ♗h5 29.♘c4 ♘xc4 30.bxc4 ♖e8
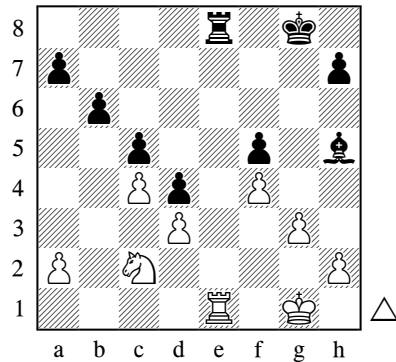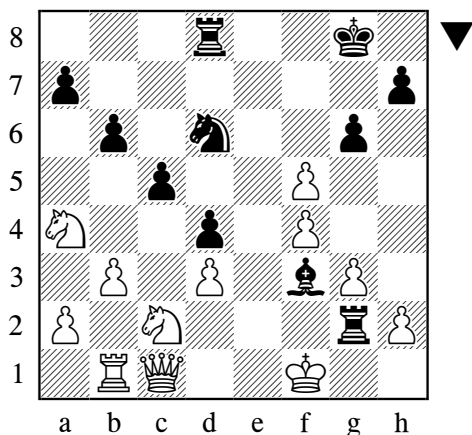

31.♔f2 ♖xe1 32.♔xe1? (White could have held relatively easily with 32.♘xe1 intending ♘f3-e5.) 32...♔f8 33.♔d2 ♔e7 34.♘e1 a6 35.a4? a5 Tal went on to win.

A curious defence is: 26.♕e1!
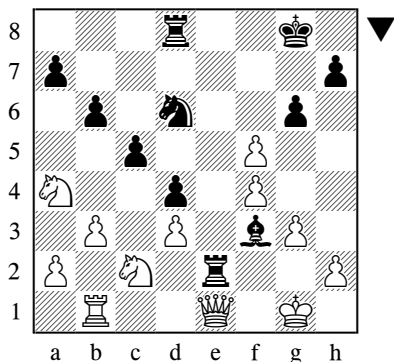
White will be doing fine if the queen reaches the defences, so 26...♖xe1† 27.♘xe1 ♗g4 28.fxg6 hxg6 is the best continuation. After something like 29.♘g2 ♘b5 Black has full compensation for the pawn, but nothing more.

26...♖g2† 27.♔f1

27...♖xh2

Black must not hurry to cash in with 27...♘xf5? as after 28.♘e1 ♖xh2 29.♘xf3 ♘xg3† 30.♔g1 ♖h1† 31.♔f2 ♖xc1 32.♖xc1, Black is still short on cash.

28.♘e1

If it was not for this possibility, Black would be winning. The knight takes the sting out of ...♖h1†, while also winning a tempo by attacking the bishop.
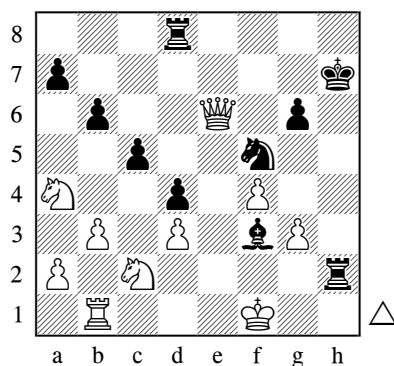
White cannot afford to lose time with:

28.fxg6? ♘f5 29.♕e1

29.gxh7†? ♔xh7 would be even worse for White, as the black king escapes further out of checking range.

29...hxg6 30.♕e6†

Another nice line continues 30.b4 ♔f7 31.g4 ♗xg4 32.♔g1 ♖xc2 33.♖b2 ♖e8! 34.♕xe8† ♔xe8 35.♖xc2 when Black delivers the coup de grâce with 35...♗d1!.
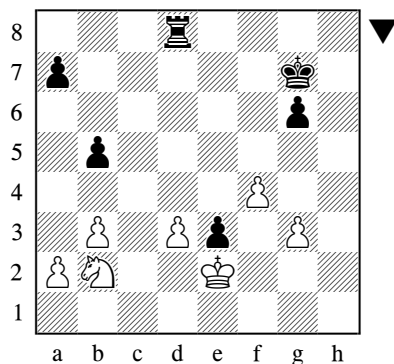
30...♔h7

31.♘xd4! cxd4

31...♖xd4 also wins.

32.♖b2 ♘e3† 33.♕xe3 dxe3 34.♖xh2† ♔g7 35.♘b2 b5
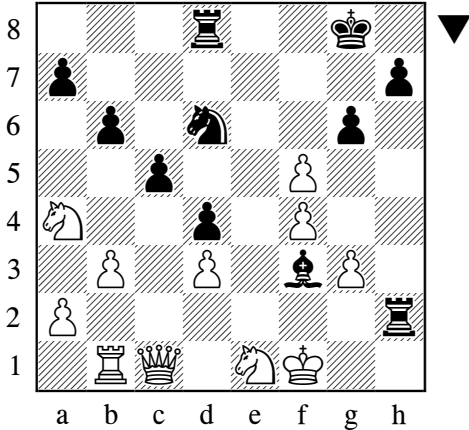
Threatening ...♖c8 with a mating net.

36.♖e2 ♗xe2† 37.♔xe2

Giving up the exchange was White's only way to prolong the game, but the position is hopeless after:

37...♖c8 38.♘d1 ♖c2† 39.♔xe3 b4!

The a2-pawn falls and the rook will have no trouble mopping up the rest of White's pawns.

28...♗a8!

Why this square? The reason becomes clear when we check the alternative:

28...♗d5

This appears a more active square, and it has the advantage of keeping White's queen out of c4 once the knight moves from d6. However, the downside is that White can sacrifice the knight on c5 and, if Black captures it, the queen will land on c5 and hit the bishop.

29.g4!

Stopping the knight from coming to f5, while simultaneously freeing the g3-square for the king.

The immediate 29.♘xc5 bxc5 30.g4 leaves Black with more options. For instance, 30...♘b7!? is possible, although this should also lead to eventual equality.

29...gxf5

29...♖e8?! invites 30.♘xc5 when Black will have to play accurately to draw.

29...h5 30.♘xc5 ♖c8 31.♘d7 ♖xc1 32.♖xc1 is safe enough for White.
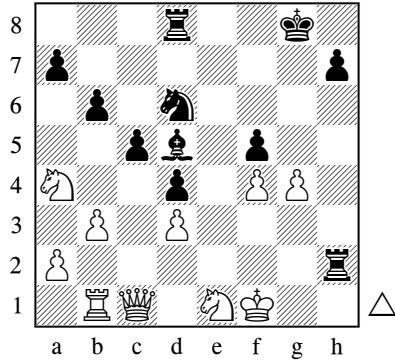
30.♘xc5! ♖c8 31.♕a3

31.b4? fxg4 is no good.

31.♘d7!? is a reasonable alternative though.

31...♘b5

31...♖xc5 and 31...bxc5 should also result in equality after accurate play.

32.♕a6 ♖xc5 33.gxf5

Black has numerous ways to keep the balance, but there is no route to an advantage.

29.g4!

As on the previous move, giving away a tempo with 29.fxg6? ends in misery after 29...♘f5!. Interestingly, there is a slight change in the details, as this time 30.gxh7† should be met by 30...♖xh7!, all because of a tactical detail several moves further into one particular line, where a potential knight check on g5 saves White from disaster when the king is on h7.

29.♘xc5? bxc5 30.g4 h5 transposes to 30.♘xc5? bxc5 in the notes below.

What should Black play now?
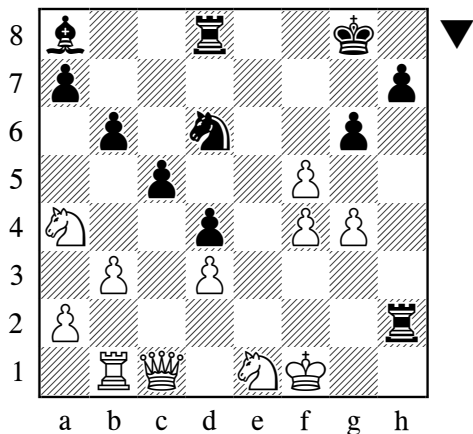
29...h5!

Aiming to undermine the light squares so that the knight can get to f5.

In the event of 29...gxf5 30.♘xc5! ♖c8! 31.♕a3! bxc5 32.♖c1 ♖e8 33.♕xc5 the queen is right on time to create counterplay. 33...fxg4 is the only decent option, when 34.♕g5† ♔h8 35.♕f6† is a simple perpetual if White wants it.

After the text move, there is a simple threat of ...hxg4 followed by ...♘f5, when White's position collapses. It is time to put some skin in the game.

30.♘c3!!

White's only saving move is anything but easy to find. It is worthwhile to compare it to some of the lines from the Kislinsky – Pieniazek game in the book's introduction. When the queen reaches f6, it won't matter if Black picks up the rest of White's pieces.

30.♘xc5? bxc5

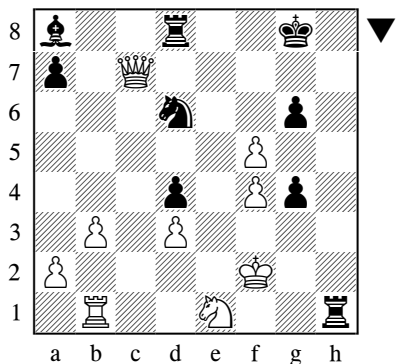This familiar idea does not work as well here.
31.♕xc5

If White instead tries 31.gxh5, there follows 31...♘xf5 32.♕c4† ♔g7! 33.♕e6 ♖f8 34.♕xg6† ♔h8 when White's lack of additional checks will lead to the loss of the queen. For example:
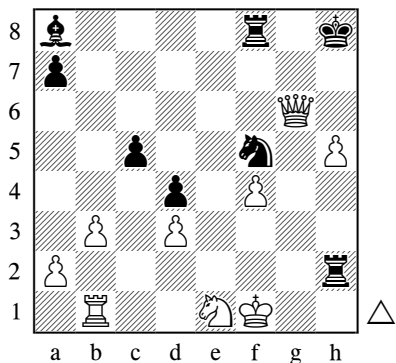
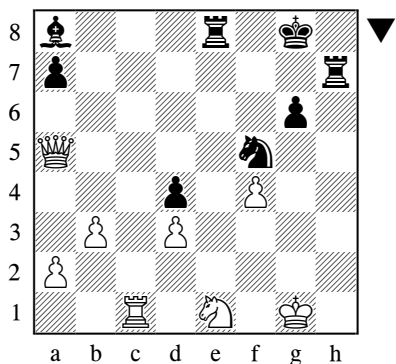35.♔g1 ♖e2 36.♖c1 ♖g8 37.♕xg8† ♔xg8 38.♖xc5 ♖xe1† 39.♔f2 ♖e3 The endgame is winning for Black.

31...hxg4 32.♕c7 ♖h1† 33.♔f2

33...g3†! 34.♔xg3 ♘xf5† 35.♔f2 ♖e8
This is the kind of position Black should aim for. Everything is protected, and the queen can no longer make any serious threats.
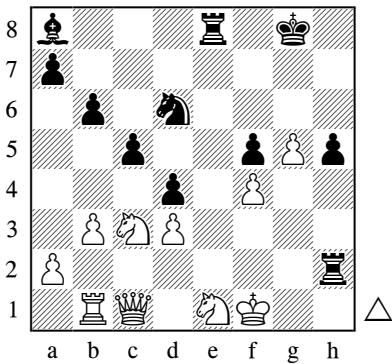
36.♖c1 ♖h2† 37.♔g1 ♖h7 38.♕a5

38...♖h4!

Black's attack is devastating. A sample line is: 39.♖c2 ♘e3! 40.♕a6 ♖g4† 41.♔h2 ♔g7 42.♕xa7† ♔h6 43.♕f7 ♖h4† 44.♔g3 ♘f5† 45.♕xf5 gxf5 46.♔xh4 ♖xe1

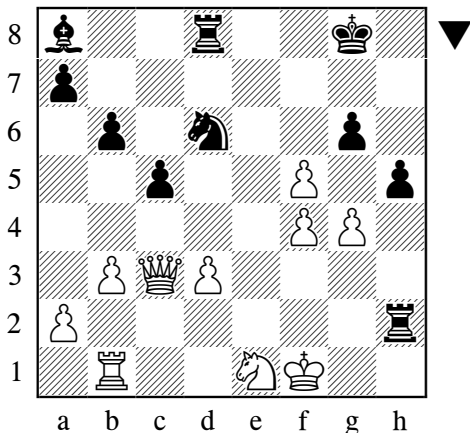With a winning endgame for Black.

30...dxc3

30...gxf5!? could also be considered. A possible continuation is 31.g5!? ♖e8 when the only move to hold the balance is:

32.♘b5! Intending 32...♘xb5 33.♕c4†, with some sort of perpetual the likely outcome.
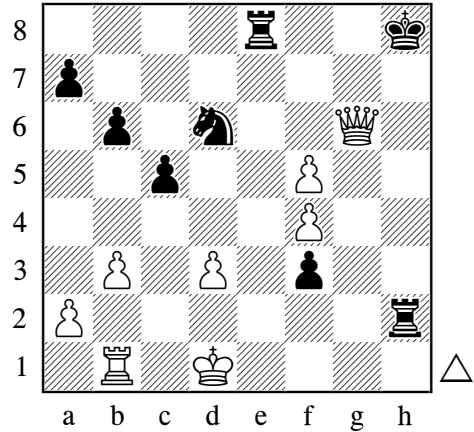
31.♕xc3

The queen will soon reach the vicinity of Black's king. This theme is recurring again and again.

31...hxg4 32.♕f6

Now Black has to force matters with:

32...♖h1† 33.♔e2 ♖e8† 34.♔d2 ♖h2† 35.♔d1 ♗f3† 36.♘xf3 gxf3 37.♕xg6† ♔h8

38.♕f6†

White may as well take the perpetual now, as 38.♕xd6 f2 gives White no chance of playing for a win.

The main thing I took away from the above game and analysis is the sorry state of White's queen and rook, as well as the knight on a4. Only the knight on e1 was participating and fulfilling an important chore. Some situations are more dangerous than they seem; and when doubled rooks are involved, it is dangerous to place too much emphasis on the material balance (or imbalance).

Why did I attach differing punctuation to 26.♕c1?! and 26.♕e1! when both moves ended in equality? The point is that it was practically impossible to foresee the details of the former line, in which White had to find many difficult moves to avoid defeat, whereas 26.♕e1! was easy to handle and even easier to evaluate. The only difficult thing about the latter move was spotting the idea in the first place, as it is extremely rare to move an attacked queen to another unsafe square.

At a time when computers can point out the best moves almost instantly, it is vital to remember that we are all fallible when making decisions over the board. Naoki Hane, a famous Japanese Go player with a rank of 9th dan, has written a book on the game of Go, in which he recommends striving to make the "80%" move. His reasons are a bit hard to explain for someone who does not play Go, but part of it has to do with acknowledging the fact that it is beyond human reach to play Go with perfect accuracy. In chess, the strongest players have the ability to play close to perfectly, at least some of the time. Nevertheless, I think it is wise for us to strive for the best human level possible, rather than the best non-human level possible.

In the next example, Black missed a spectacular opportunity to harness the power of the rooks.

Alexander Ipatov – Sabino Brunello

Warsaw 2013

1.d4 d5 2.c4 c6 3.♘f3 ♘f6 4.♘c3 dxc4 5.a4 ♗f5 6.e3 e6 7.♗xc4 ♗b4 8.0–0 ♘bd7 9.♘h4 0–0 10.h3 ♗g6 11.♘xg6 hxg6 12.♕b3 ♕b6 13.♖d1 a5 14.♗d2 e5 15.d5 ♘c5 16.♕a2 ♖ad8 17.dxc6 bxc6 18.♗e1 ♕b7 19.b3 ♘fe4 20.♕c2 ♘d6 21.♗e2 ♕b6 22.♖ab1 ♖d7 23.♗g4 f5 24.♗e2 ♖fd8 25.♘a2 ♗xe1 26.♖xe1 ♘de4 27.b4 ♘d3 28.bxa5 ♕xa5 29.♕c4† ♔h7 30.♗xd3 ♖xd3 31.♘b4
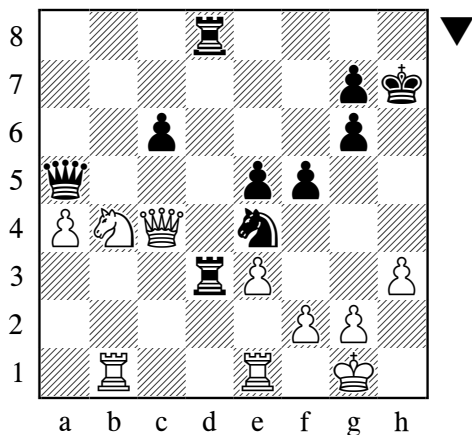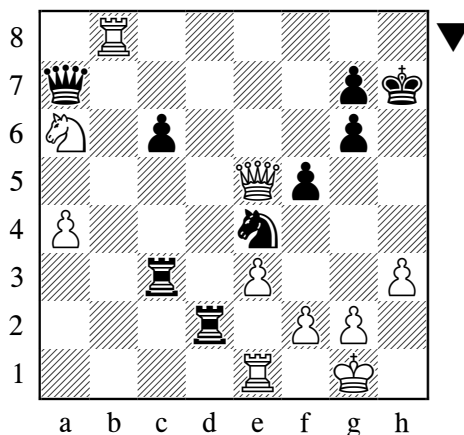

31...♖c3!?
An ambitious move.

In the event of 31...♕xa4 32.♕xc6 (32.♕xd3? ♖xd3 33.♘xd3 ♕c2 is no good for White) 32...♖a3 the queenside pawns have been liquidated, and there is little more to play for.

32.♕e6 ♕c5 33.♘a6 ♕a7 34.♕xe5 ♖d2 35.♖b8
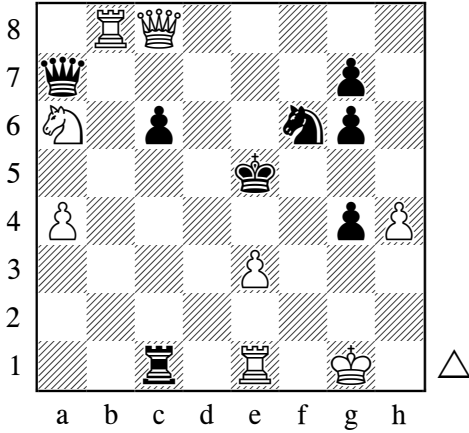35.♕e8 ♖xf2 36.♖b8 leads to the same position as in the game.

35...♖xf2!?
Both 35...♕f7 and 35...♕d7 would have led to approximate equality.

The game continuation could have been a tricky move, if Black had followed it up correctly. As it happened, he soon went down. The remaining moves were:

36.♕e8 ♔h6? 37.♕h8† ♔g5 38.♕d8† ♔h5 39.g4† fxg4 40.♕h8† ♔g5 41.h4† ♔f5 42.♕c8† ♔e5 43.♕e8† ♔f5 44.♕f8† ♘f6 45.♕c8† ♔e5 46.♔xf2 ♖c2† 47.♔g1 ♖c1
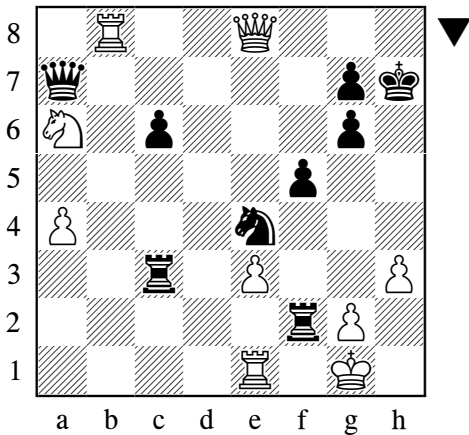
48.♖b5†! ♔e4 49.♕e6† ♔f3 50.♖f5†
Black resigned.

1–0

When I first saw this game, I immediately wondered what would have happened if Black, instead of 36...♔h6?, had played:

36...♕xb8! 37.♕xb8 ♖cc2

Considering that this was just before the time control, I am guessing that Black had little time left to evaluate the consequences of this crazy position. White's next move is forced.

38.♕h2

This is a moment where many would stop calculating, even with plenty of time on the clock. However, if we take into account the passivity of the queen and the weakness of White's back rank, it should be well worth continuing at least one move deeper.
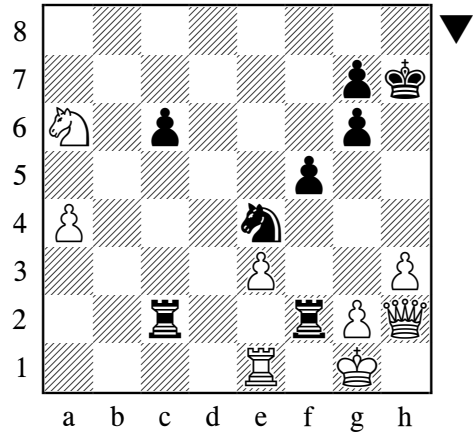
38...♖fe2!

It shouldn't be too difficult to calculate this far.

38...♘g5? looks tempting: Black threatens ...♘f3†, and if the queen goes to g3, then Black can repeat moves. However, White has an awesome defence: 39.♕h1!!
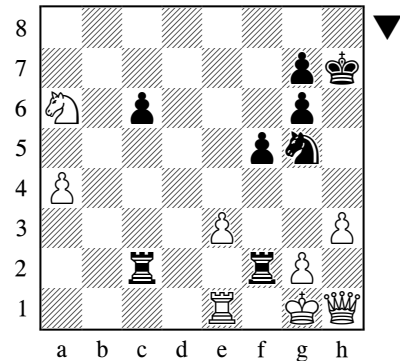
Removing Black's threat and giving White the tempos needed to pick up the c-pawn and get back with the knight, thus achieving a winning position.

39.♖f1

White must of course avoid 39.♖xe2?? ♖c1†.

If the white rook goes anywhere else, the c2-rook will chase it: for instance, 39.♖a1 ♖a2 40.♖b1 ♖ab2 and so on. Therefore, if White wants to play for a win, the only option is to place the rook on f1 at some point. White may as well do so immediately, so that the upcoming ♘b4 will gain a tempo against the rook on c2.

39...♖xe3

It may seem as if Black is capturing a meaningless pawn, but in reality this is an essential step towards strengthening Black's kingside bind. The white knight will soon be heading back towards the kingside, so Black has no time to lose.

40.♘b4 ♖b2

It feels most natural to hit the knight.

40...♖d2!? is also satisfactory though. Play could continue 41.♕f4 ♖ee2 42.♕f3 ♘g5, when White must either accept a repetition or give back the queen:
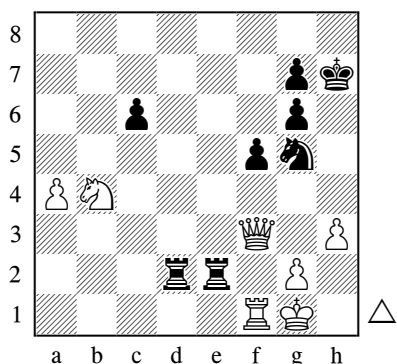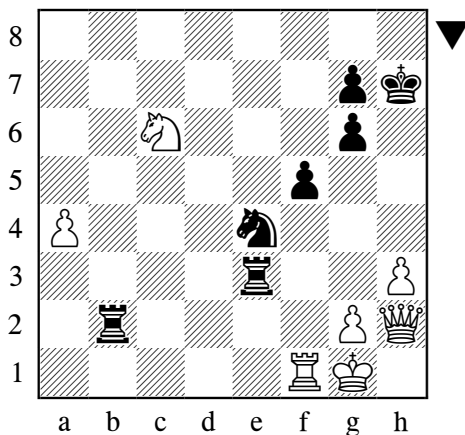

43.♕xe2 ♖xe2 White has some vague hopes of making something out of the outside passed pawn, but Black is active enough to stay out of danger. For example:

a) 44.♘xc6 ♖c2 45.♘b4 ♖b2 46.♘c6 ♖c2 leads to a draw.

b) 44.♖a1 c5 45.♘d5 ♖d2 46.♘c7 c4 47.♖c1 ♘e4 48.♖xc4 ♖a2 comes down to the same thing.

41.♘xc6

41...♘g3!

Five moves have been played since the queen sacrifice on move 36. None of them have been especially difficult, and when you get this far it should be possible to make a decent evaluation. Black has given up a queen for a rook, but just look at that queen. How do you suggest White should proceed to get it out of the corner? It cannot be done. So, the next question is: can White use the a-pawn to deflect Black's rooks? What do you think?
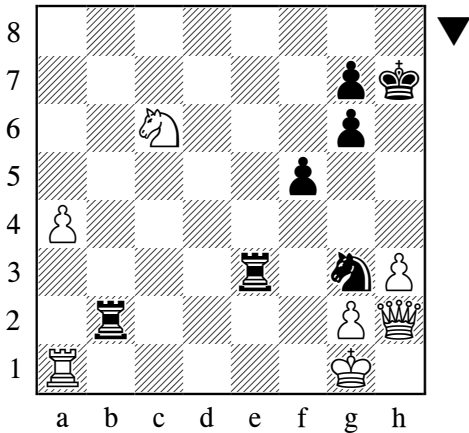
42.♖a1?

White should get his stuff together before things get out of hand. One way to reach safety is: 42.♘d4! f4 (42...♘xf1 43.♕f4 ♖d3 44.♕h4† is also equal.) 43.h4 ♘xf1 44.♕xf4 ♖e1
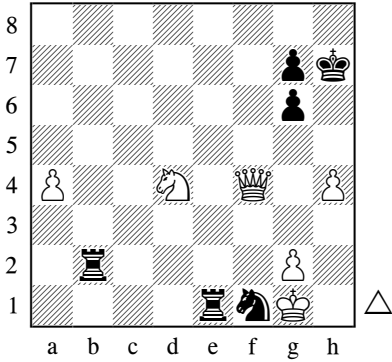
45.♘f3! ♖d1 46.♘g5† ♔h6 47.♘e6† ♔h7
With a draw.

The move in the main line looks reasonable, doesn't it?

42...f4!

Setting up a deadly threat of ...♖be2, followed by a check on e1 and mate on f1. Believe it or not, White's position is already beyond saving.

43.♘d4

White must avoid 43.a5 ♖be2 (43...♖eb3 also works) 44.♖f1 ♖e1 with a mating net. The text move stops the enemy rooks from moving to either e2 or b3, but Black has more strings on his lute.

43...♖a2! 44.♖b1

The rook was untouchable because of mate in two.
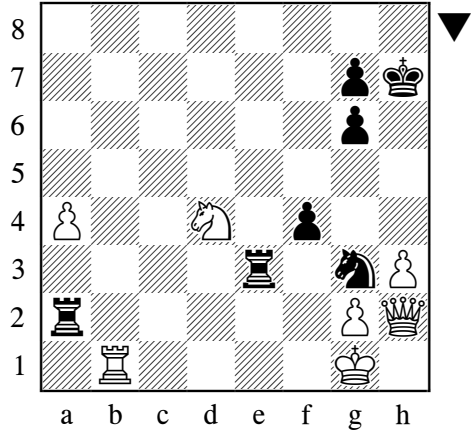
44...♖ea3!

Continuing to hunt for mate along the first rank.

Black does not have time for 44...♖xa4? because of 45.♘f3 ♖a2 46.h4! when White obtains enough counterplay with checks on g5 and f7, or with the queen coming to h3. Black has a few ways to force a draw, but the win has gone. (By the way, it should be no surprise that passive defence fails for White. For instance, after something like 46.♘e1? g5 47.♘f3 ♔h6 48.♖b6† ♔h5 49.♖b1, then 49...♖ea3! leaves White with no good defence against ...♖a1.)
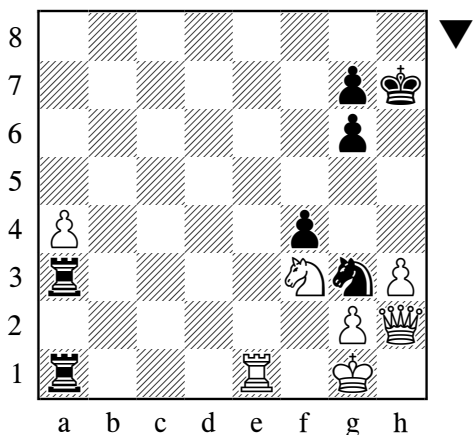
45.♘f3

Most random knight moves fail to ...♖a1, while 45.♖e1 allows a lovely finish: 45...g5! (But not 45...♖a1? 46.♘c2! when White escapes.) 46.h4 g4 47.♘f5 g6 48.♘xg3 fxg3
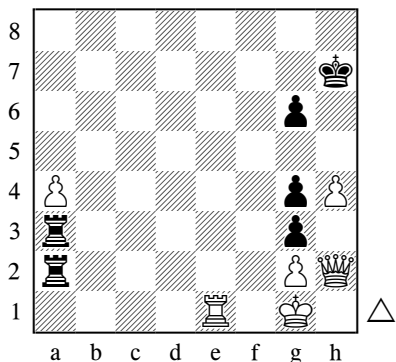
49.♕h1 It's hard to imagine a worse-placed queen. 49...♖a1 Black will win the queen for nothing.

The text move is White's best defence, but it is not enough to save the game after:
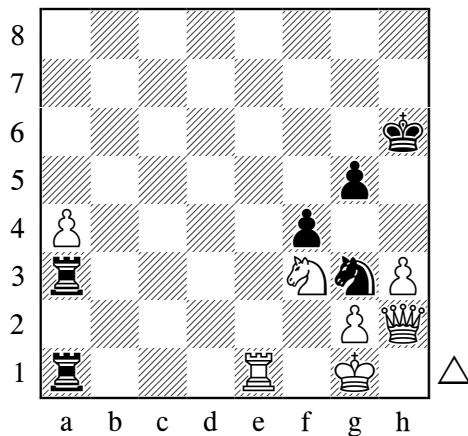
45...♖a1 46.♖e1

46...g5!!

This curious sacrifice gains time for the black king to advance, thus enabling the second g-pawn to safely reach g5.

47.♘xg5† ♔h6 48.♘f3

48.♘f7† ♔h5 49.♔f2 ♖xe1 50.♔xe1 ♖a1† is another cute variation, when 51.♔f2 ♖f1# is mate, and 51.♔d2 ♘f1† picks up the queen.

48...g5!
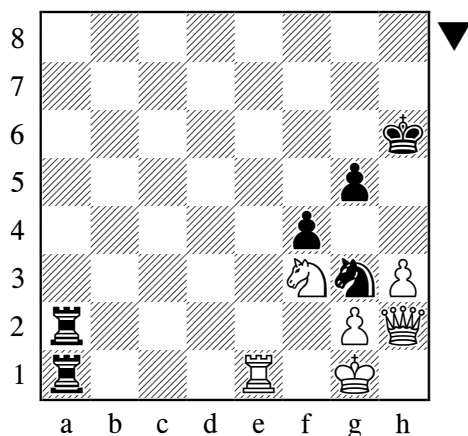
White has ended up in a terrible bind.

49.♔f2

49.h4 g4 only hastens the end.

49...♖3a2† 50.♔g1 ♖xa4

Only now does Black have time to remove the a-pawn without spoiling the win.

51.♔f2 ♖4a2† 52.♔g1

52...♔h5!

The zugzwang is complete, so Black wins.

Conclusion

Again, I offer no grand theory of anything. The answer to the question at the start of the chapter – "How do we go about evaluating such situations more precisely?" – can only be answered in the most roundabout of manners. The apple falls. It hits you on the head. At least you've learned not to fall asleep under apple trees when they are full of fruit. Also, do not underestimate the force of a rook or two as they become cosy on the back ranks.

If Plato had read my conclusions to all this, he would have turned me into one of those poor guys that Socrates pokes fun at, most philosophically. And I am fine with that.