Chess960 Superhumans!

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Chess960 time at the Top Chess Engine Championship (TCEC, 2021a)! The more I watch these games, the more I feel that the gap between humans and engines is even higher in Chess960 than in normal chess. I loved the opening phase of this game between two of the less famous engines on show. I’m not sure I would have thought of any of Black’s moves! The game VAJOLET2 – SLOWCHESS BLITZ is available for replay and download (TCEC, 2021b).

Fig. 1. TCEC Season 20, FRC League B, 2021-03-05: VAJOLET2 – SLOWCHESS BLITZ, Chess960 position #50 (Chess960, 2018; Scharnagl, 2004; Weeks, 2008; Wikipedia, 2021).

In common with most players, I always take a few minutes to size up a Chess960 position before I start to make moves! A first sweep through the position seems to indicate good and natural development prospects for the White pieces:

- **Bf1** – White will play either b3 or b4 to activate the bishop along the long diagonal (saving a move over the fianchetto in normal chess),
- **Nh1** – the standard knight development with c4 and Nc3 is obvious,
- **Nc1** – an odd place for the knight, but d3 is a good spot for the knight in a 1.d4 opening. So, the moves d4 and Nd3 also seem indicated,
- **Rd1** – the rook fits in well with any push of the d-pawn to d4,
- **Qe1** – as always, the queen can fit in with virtually anything. Here it is well-placed to support the e4 push after d4 to set up a double pawn centre,
- Bf1 – the bishop can – as in normal chess – support a Queen’s Gambit type advance with c4,
- Kg1, Rh1 – these are perfectly-placed to castle normally in one move once the bishop on f1 develops. However, since the king is already on the castling square g1, you might consider trying to achieve more with the rook than just moving it to f1. h4 and Rh3 comes to mind.

In conclusion, my first thought as White would be to play d4, c4, b3, Nc3, Nd3, e3(e4) with a natural d4–type opening. As we shall see, although VAJOLET’s White moves are somewhere in the ballpark of what I have described, SLOWCHESS’ Black moves are completely different!

1.c4. My natural first move would have been 1.d4 but this is also perfectly reasonable. 1...e5: we have a sort of English! 2.Nc3 h5, Fig. 2a.

This is the start of some remarkable moves from SLOWCHESS! First, Black is alert tactically and keeps the knight on b8 ready to meet Nd5 (attacking c7) with ...Na6 (followed by ...c6 to chase away the knight from d5). Secondly, Black sets up some sort of future connection between the bishop on a8 and the h-pawn (which would converge on g2 after a subsequent ...b6 and ...h4–h3.) and perhaps even between the bishop on a8 and the rook on h8 after ...Rh6–g6. After Black’s first move, White might even have considered a Botvinnik-style setup with g3, Bg2, e4, N1e2 and 0–0 (Rh1–f1) with either d3 or d4 to follow depending on circumstances. 2...h5 makes sure that Black can meet g3 with ...h4!

2...Nc6 would be the natural follow-up in a standard English opening, clamping down on d4 but 3.Nb5 here is extremely awkward! 3.Nb5 Bd6, the only way to defend c7! 4.e5, Fig. 2b. 4...Bxc5 5.Nxc7 Qe7 6.Nxa8. Black should recover the piece but will need some effort to do so without losing material in return. In the meantime, White has netted the bishop pair already.

3.d4. White responds sharply, meeting wing play with central play. 3.h4 was also possible, preventing Black’s obvious play with ...h4–h3 and asking Black to demonstrate any other points to its second move. 3...exd4 4.Rxd4 h4 5.b3 Na6, Fig. 2c. A huge contrast in approach! While White is placing all its pieces centrally, Black is playing around the sides! The knight covers c7 against Nd5 and avoids blocking the a8–h1 diagonal for the light-squared bishop on a8 after ...b6. 6.Nd3 b6 7.Nd5, Fig. 3a. Suddenly, Black seems to be in severe danger after just seven moves. Nf6+ is a reply to many of Black’s most natural moves.

7...f5, Fig. 3b. Another shocking move! This move – abandoning the possibility of blocking the a1–h8 diagonal with a pawn – is not one you would expect to parry threats along the long diagonal! However, the f5–pawn takes away g4 from the white rook (neutralising the tactical threat of Nf6+) and highlights the lack of squares available to the white rook on d4. White’s attacking knight on d5 is
also not stable as it can be driven away by ...c6, a result of Black’s foresight in placing the knight on a6 on move 5!

The more I analysed, the more it seemed that Black was doing ok in this position. A large part of me rebelled against this idea: how could Black still be fine after playing all these odd ideas in the first seven moves (...h5–h4 and ...Na6) from the starting position in the face of White’s beautiful central strategy? The crux of the matter lies in the words starting position. The starting position of a Chess960 game is not the same as that of a normal chess game!

Fig. 3. (a) position 7b, (b) position 8w, (c) variation position 10b.

Firstly, Black’s development was already pretty advanced from move 1! The black king was already ‘castled’ on g8, safe from any central dangers! Even more interestingly, the king could still castle to the queenside if matters got too hot on the kingside!

Secondly, looking at the starting position of the black queen on e8, you see that it defends light squares such as g6 that would normally be terribly weakened by the moves ...h5–h4 and ...f5. The moves Black is playing are strange, but they do seem to fit the positions of the pieces in this specific Chess960 position. 7...c6 loses to 8.Nf6+ gxf6 9.Rg4+ Bg7 10.Bxf6, Fig. 3c. 10...Rh7 11.Qc3 Qh4 12.Nf4 Ne7 (12...Nd5 13.Nh5 Ne4 14.Bxg7 Nxc3 15.Nf6#) 13.Nh5 Ng6 14.Bxg7 Rxc7 15.Nf6+ Kh8 16.f4 followed by f5 is winning for White.

7...Rh6 was what I was expecting to deal with the threat of Nf6+. However, there are some unexpected tactical problems. 8.Qc1 threatening Qxh6 followed by Nf6+ 8...Qe6. Black doesn’t want to play ...Bxd5 to counter this threat as none of Black’s opening play (...h5–h4, ...Na6) makes sense if the light-squared bishop is exchanged. However, Black’s queen and rook are unpleasantly exposed to White’s minor pieces after 9.Nf4.

8.Rf4 attacking the f5–pawn, opening the diagonal of the dark-squared bishop and getting the rook out of attacks such as ...c6 followed by ...c5. 8...Nd6 9.e4. This sharp central break looks extremely strong. Somewhere in the mix, the bishop on f1 is now eyeing the loose knight on a6 along the f1–a6 diagonal! 9...fxe4 10.Ne5 Rh5, Fig. 4a. A great defence, hitting the knight on e5, giving White no respite to develop further with Be2. 11.Rg4.

8.Qc3, Fig. 4b. This looked very strong to me, introducing the violent threat of Nf6+ ...gf, Ng4 as well as the quieter but still unpleasant Be2. I probably wouldn’t have spotted Black’s key defensive resource if I hadn’t been aware of the game continuation! 11...Bxd5. I know I said earlier that Black’s play doesn’t make any sense if it is forced to exchange off this bishop... but tactics always trump logic! (11...c6 12.Nf6+ gxh6 13.Ng4 is completely winning for White! 13...Bg7 14.Ng6+ Kh8 15.Nxe8 Bxc3 16.Bxc3+; 11...Qe6 12.Ne4 with the double threat of Nxd8 and Rxg8+.) 12.cxd5 Nb4, Fig. 4c.
Beautiful! The key point is that Black threatens ... Nxd5 forking the queen on c3 and rook on f4 while covering the f6-square against Nf6+ tactics! 13.Rxf8+ (13.Qxb4 Rxe5 14.Bxe5 Qxe5 15.Qe1 0–0–0!!) 13... Qxf8 (13... Kxf8 14.Nd3) 14.Qxb4 Qf4 (14... Qf6 may also be ok for Black.) 15.Qd4 Rg5 16.Nc4 Nxc4 17.bxc4 Rxc4 18.Bxg2 Qc1+ 19.Bf1 Qg5+ was the surprising and beautiful perpetual indicated by my engine.

11... Bxd5 12.cxd5 Nb4. 12... Rxe5 13.Bxe5 Qxe5 14.Bxa6 looks a more natural way for Black to play. Why would Black spend a tempo to make White capture the knight on b4 rather than a6? You will see in a few moves. For a start however, the white queen is offside on b4 and no longer covers the white kingside dark squares.

13.Qxb4 Rxe5 14.Bxe5 Qxe5, Fig. 5a. 15.g3. 15.Rxh4 e3, Fig. 5b, is suddenly rather fraught for White. This position could also be reached from 12.Qc3 Bxd5 13.cxd5 Nb4 14.Qxb4 Rxe5 15.Bxe5 Qxe5 16.Rxh4 e3. 16.Qd4 exf2+ 17.Kxf2 Qg5 threatening the follow-up ... Nf5 and ... Bc5. STOCKFISH manages to hold the balance for you but it’s an unpleasant experience for White! 18.Rg4 Qc1 19.g3 Nf5 20.Qe4 Qd2+ 21.Be2 Bc5+ 22.Kg2 Ne3+ 23.Kf3 Nxd5 24.Rd1 Qe3+ 25.Kg2 Qxe4+ 26.Rxe4 Ne3+ 27.Rxe3 Bxe3 is the main line.

15... Be7 16.Qe1 0–0–0!! Fig. 5c. Suuuuuper-long castling! The point of all Black’s previous play! Risks such as 7... f5 are acceptable if you know there is a safe spot for your king on the opposite flank away from the weaknesses you have created! You may only now (as I did!) realise the point of 12... Nb4: if Black had let White capture on a6 with the bishop after 12... Rxe5, queenside castling would be impossible, prevented by a bishop on a6!
The rest of the game is still interesting but less relevant to our theme. Black has a pawn for the exchange, a weak d5–pawn as a target and plenty of play on the dark squares. The game is approximately balanced and ended in a draw on move 80.

17.Bg2 hxg3 18.hxg3 Bf6 19.0–0 Rh8 20.Qe2 e3 21.fxe3 Bg5 22.Re1 Kb7 23.Bf3 Qf6 24.Qf2 Kb8 25.Bg2 Qe5 26.Rd4 Re8 27.Rd3 Ne4 28.Bxe4 Qxe4 29.Rd4 Qh7 30.Rg4 Rh8 31.Qg2 Bf6 32.Re4 g5 33.Kf1 Be7 34.Kc2 Bd6 35.Rc4 Re8 36.Qe2 Qg6+ 37.Kd2 Qg7 38.Qd1 Kg8 39.Rd1 Ra8 40.Rc1 Qa6 41.Qd6 Ra6 42.Qc7 e5 43.Re1 a5 44.Qc6 Qa7 45.Rd1 e4 46.Rd3 Rg8 47.Rf3 Qg5 48.Kf1 Qxf5 49.Rf1 b4 50.Qd4 Qf5 51.Qd6+ Kf8 52.Qd1 Ke7 53.Qd4 b3 54.Qd1 Qc5 55.Qd4 Qc6 56.Qd1 Qc5 57.Kf1 Qf5 58.Qc1 Qc5 59.Qb1 Qf5 60.Qb2 Qe5 61.Qe5 Qf6 62.Qe2 Qd6 63.Qf1 Qd1 64.Qd1 Qa8 65.Rd1 Qb8 66.Rf1 Qc8 67.Rd1 Qd8 68.Rf1 Qe8 69.Rd1 Qf8 70.Re1 Qg8 71.Rd1 Qh8 72.Rc1 Qg8 73.Rd1 Qh8 74.Qd1 Qg8 75.Qd1 Qf8 76.Rd1 Qe8 77.Rc1 Qd8 78.Rd1 Qc8 79.Rd1 Qb8 80.Rd1 Qa8 81.Rd1 Qb8 82.Rd1 Qc8 83.Rd1 Qd8 84.Rd1 Qe8 85.Rd1 Qf8 86.Rd1 Qg8 87.Rd1 Qh8 88.Rd1 Qi8 89.Rd1 Qj8 90.Rd1 Qk8 91.Rd1 Ql8 92.Rd1 Qm8 93.Rd1 Qn8 94.Rd1 Qo8 95.Rd1 Qp8 96.Rd1 Qq8 97.Rd1 Qr8 98.Rd1 Qs8 99.Rd1 Qt8 100.Rd1 Qu8 101.Rd1 Qv8 102.Rd1 Qw8 103.Rd1 Qx8 104.Rd1 Qy8 105.Rd1 Qz8 106.Rd1 Qa8 107.Rd1 Qb8 108.Rd1 Qc8 109.Rd1 Qd8 110.Rd1 Qe8 111.Rd1 Qf8 112.Rd1 Qg8 113.Rd1 Qh8 114.Rd1 Qi8 115.Rd1 Qj8 116.Rd1 Qk8 117.Rd1 Ql8 118.Rd1 Qm8 119.Rd1 Qn8 120.Rd1 Qo8 121.Rd1 Qp8 122.Rd1 Qq8 123.Rd1 Qr8 124.Rd1 Qs8 125.Rd1 Qt8 126.Rd1 Qu8 127.Rd1 Qv8 128.Rd1 Qw8 129.Rd1 Qx8 130.Rd1 Qy8 131.Rd1 Qz8 132.Rd1 Qa8 133.Rd1 Qb8 134.Rd1 Qc8 135.Rd1 Qd8 136.Rd1 Qe8 137.Rd1 Qf8 138.Rd1 Qg8 139.Rd1 Qh8 140.Rd1 Qi8 141.Rd1 Qj8 142.Rd1 Qk8 143.Rd1 Ql8 144.Rd1 Qm8 145.Rd1 Qn8 146.Rd1 Qo8 147.Rd1 Qp8 148.Rd1 Qq8 149.Rd1 Qr8 150.Rd1 Qs8 151.Rd1 Qt8 152.Rd1 Qu8 153.Rd1 Qv8 154.Rd1 Qw8 155.Rd1 Qx8 156.Rd1 Qy8 157.Rd1 Qz8 158.Rd1 Qa8 159.Rd1 Qb8 160.Rd1 Qc8 161.Rd1 Qd8 162.Rd1 Qe8 163.Rd1 Qf8 164.Rd1 Qg8 165.Rd1 Qh8 166.Rd1 Qi8 167.Rd1 Qj8 168.Rd1 Qk8 169.Rd1 Ql8 170.Rd1 Qm8 171.Rd1 Qn8 172.Rd1 Qo8 173.Rd1 Qp8 174.Rd1 Qq8 175.Rd1 Qr8 176.Rd1 Qs8 177.Rd1 Qt8 178.Rd1 Qu8 179.Rd1 Qv8 180.Rd1 Qw8

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