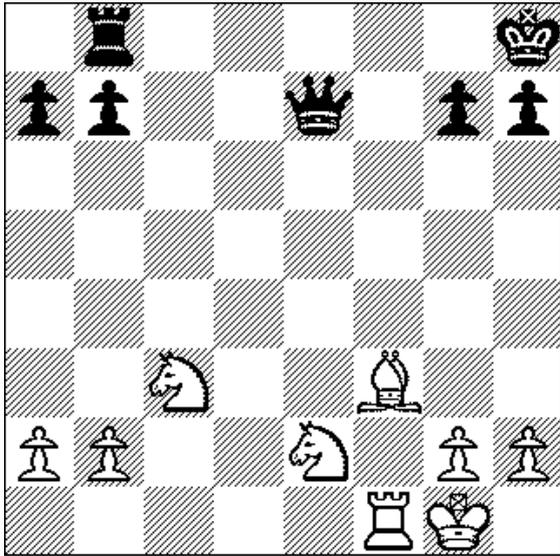


Queen vs 3 minor pieces



in spite of the seemingly materially balanced position, white is easily winning that

Value: bonus, 60cps in the mg, 20cps in the eg, for the 3 minor pieces

Additional information: this is one of the imbalances that capture the imagination. Even top humans have considerable problems playing it optimally, as transitions from one piece configuration to another are frequent and abrupt, and human perception usually has difficulties quickly adapting to changing unknown circumstances. Besides, gameplay is far from trivial. Machines, on the other hand, would play easier materially unbalanced positions with complicated exchanges and abrupt transitions, however, the problem there, with rare exceptions, is hugely insufficient material imbalance evaluation.

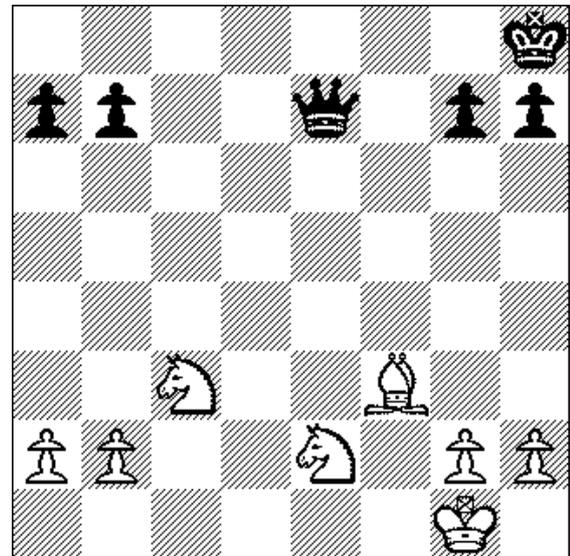
The 3 pieces are due a nice overbonus due to the following reasons:

- much better coordination in attack: the more numerous army is able to successfully aim at and conquer enemy objects, pawns and pieces, and squares of the king shelter, with defence of the opponent side being insufficient due to the presence of a single piece of higher power,

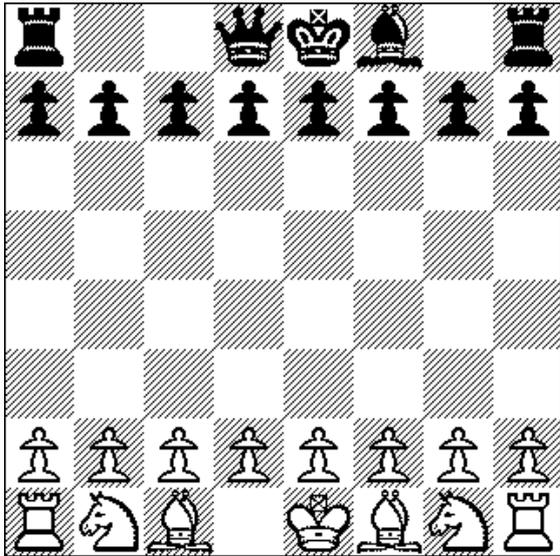
the queen, which alone can not defend itself and particular board squares from multi-focused attacks

- pretty much along the same lines, much better coordination in defence: the more numerous army is able to very successfully defend its separate units, as well as vital points in its pawn structure and king shelter; with so many pieces, usually many of them will mutually defend each other, as well as a multitude of own pawns and otherwise vulnerable king shelter squares

The much lower endgame bonus is due to the fact that, the smaller the number of pieces for one side, the worse their coordination is.



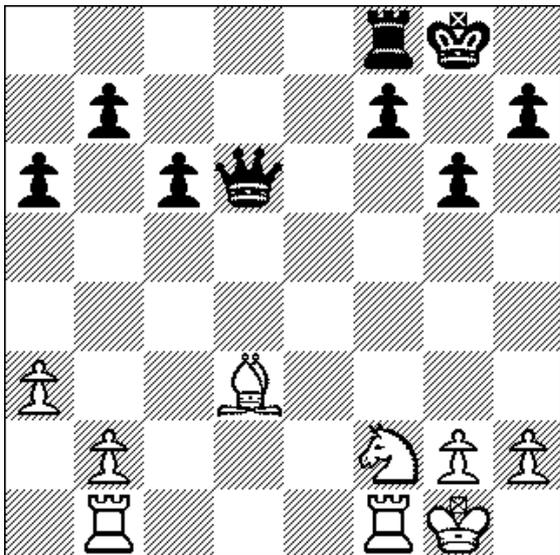
this is pretty much a draw



and this is pretty much won for white, even if white did not possess the bishop pair

Frequency: infrequent

Queen vs rook and 2 minor pieces



white should easily win that one, although the material balance somewhat even favours black

Value: bonus, 120cps in the mg, 80cps in the eg, for the rook and 2 minor pieces

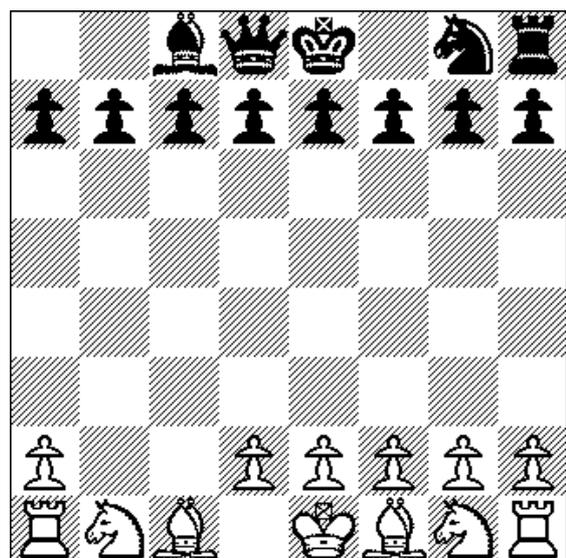
Additional information: another imbalance configuration that promptly captures the imagination. As with the 3

minor pieces vs queen imbalance, here most humans will have terribly hard time playing such positions optimally, while most, even top, chess engines, will fail to make the utmost of such imbalances, simply because of partially or entirely lacking chess knowledge, meaning the engines will rarely pick up lines involving similar imbalances, going for other, much inferior positions instead.

The very well-deserved bonus is dispensed for precisely the same reasons as with the 3 minor pieces vs queen imbalance:

- much better coordination in attacking enemy objects and particular board squares
- much better coordination in defence, including defence among pieces, and defence of specific board squares

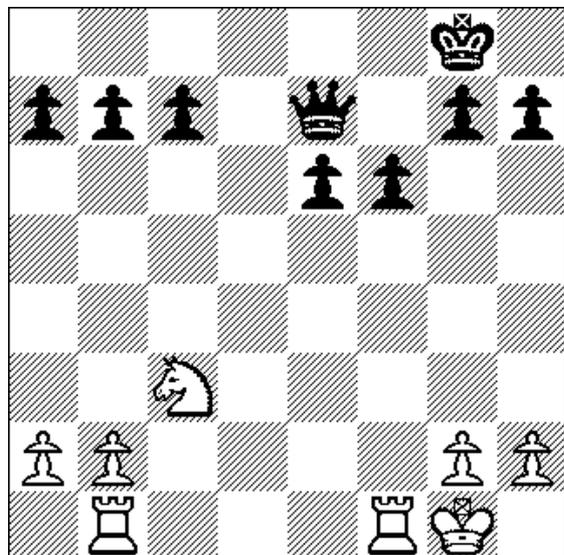
The only bigger distinction with the above-mentioned imbalance is that here the drawing margin in terms of available board material comes significantly later for the queen side, as the opponent has a possession of more material even with no other pieces present, including a rook, and besides the presence of a rook will mean that this side has a piece attacking along ranks and files apart from pieces with minors' capabilities.



with more pieces on the board, that is an even easier win for the rook and 2 minors

Frequency: infrequent

Queen vs 2 rooks and a minor piece



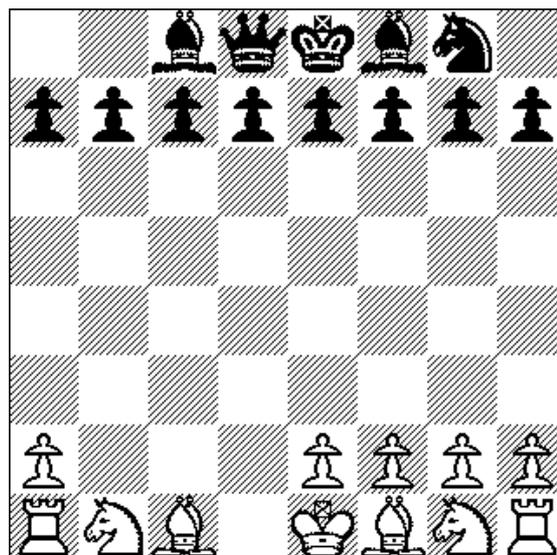
in spite of the seeming material equality,
white has excellent winning chances

Value: bonus, 150cps, both in the mg and eg, for the 2 rooks and minor

Additional information: the configuration is bonised because:

- the higher number of pieces provide much better coordination in attack
- the higher number of pieces provide much better coordination in defence

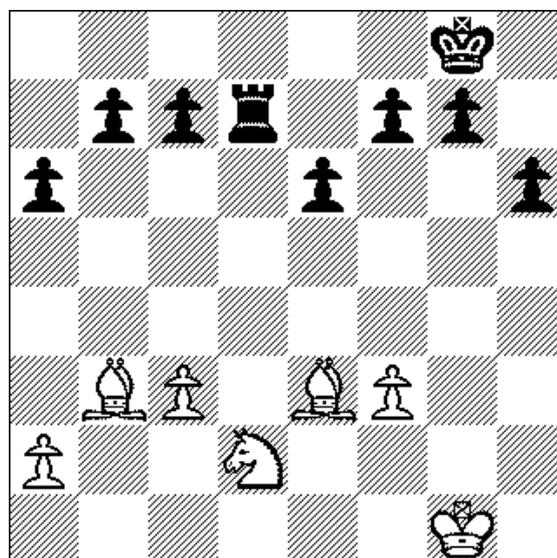
Bonus is equal for the mg and eg, as, even if no additional pieces present, the side with the 2 rooks and a minor already has a sufficient material availability to dangerously threaten the opponent.



more pieces would of course only increase winning chances for the side with 2 rooks and minor; in fact, white is easily winning that

Frequency: infrequent

Rook vs 3 minor pieces

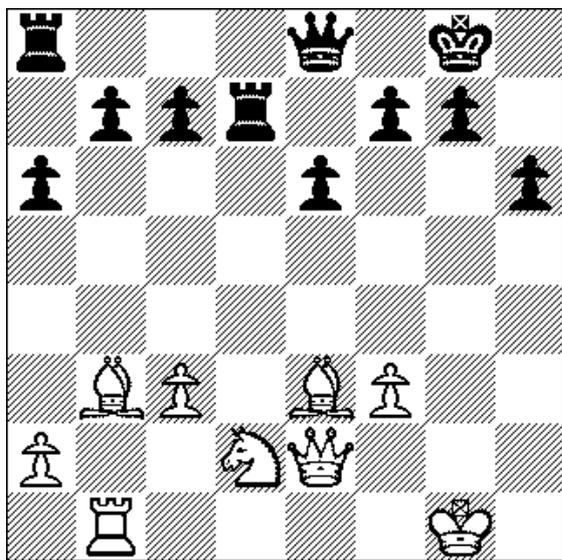


in spite of materially balanced position,
white should easily win that

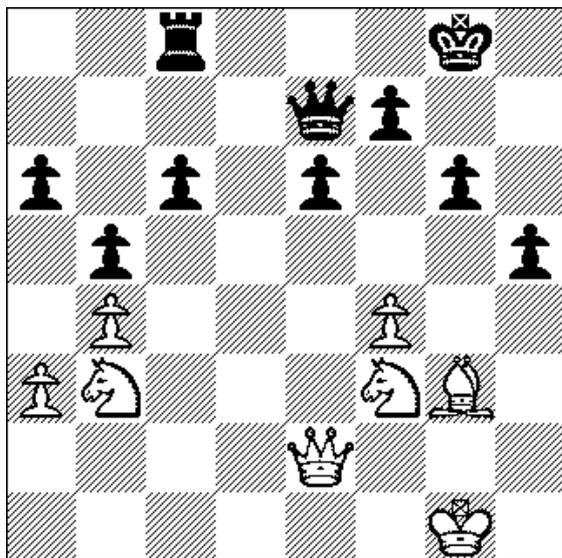
Value: bonus, 70cps, both in the mg and eg, for the 3 minor pieces

Additional information: another intriguing imbalance. The bonus is given for the following reasons:

- much better coordination in attacking enemy pawns and pieces, as well as the enemy king shelter
- much better coordination in defence, including defence among pieces and defence of vital board squares, primarily the king shelter
- permanently fixing enemy pawns as backward, gaining valuable positional assets in the process



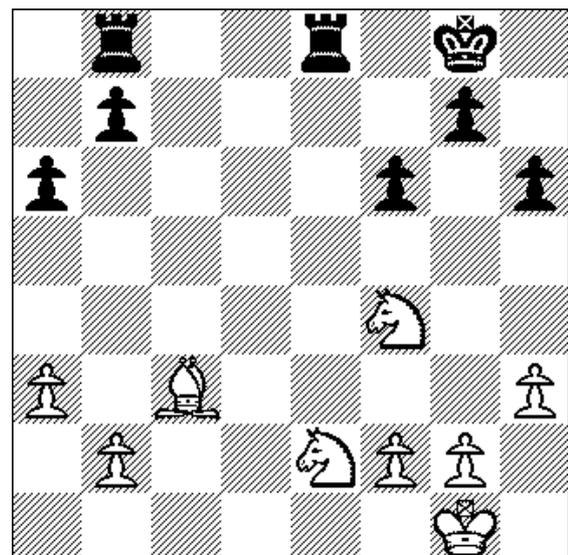
with more pieces present, the advantage for the side with the 3 minors further increases; white is easily winning that



a clear example of how a big number of minor pieces for one side is able to make enemy pawns backward; if it were not for Nb3, controlling the c5 square, black would be able to push c6-c5, getting rid of the c6 weakness; if it were not for Nf3, controlling the g5 square, black would be able to push g6-g5, with some counterplay; even h5-h4 push is not possible, even though white does not have a pawn challenging black's h5 pawn advance, as both Nf3 and Bg3 control the h4 square; in this way, all of above black pawns are backward, and white can use these positional assets to gain some more time in regrouping and delivering a decisive attack against enemy weak pawns, pieces and squares of the king shelter; what makes such opponent pawns backward is the lack of pieces of lower power as minors for the opponent side, able to support the advance of own pawns, therefore it is much preferable to have minor pieces than rooks in similar constellations

Frequency: infrequent

3 minor pieces vs 2 rooks



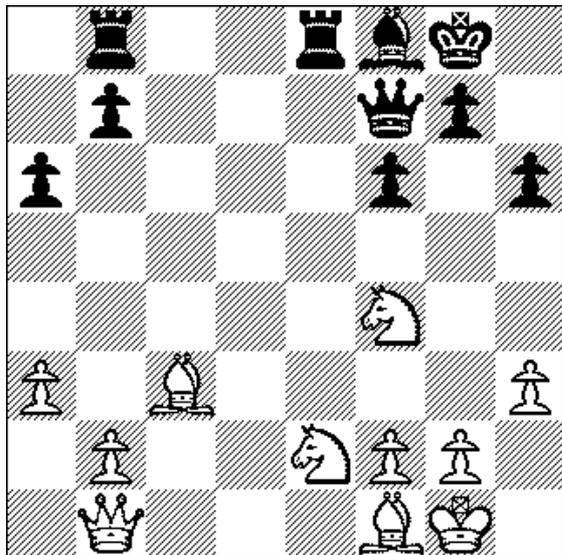
well, white will always have some additional small edge in similar positions

Value: bonus, 15cps, both in the mg and eg, for the 3 minor pieces

Additional information: the bonus is dispensed for the following reasons:

- better coordination in attacking enemy pawns and pieces, as well as squares of the king shelter
- better coordination in defence among pieces, as well as defence of vital board squares, basically the king shelter
- ability to make enemy pawns backward, pretty much along the same lines as in the case of an imbalance of 3 minor pieces vs rook

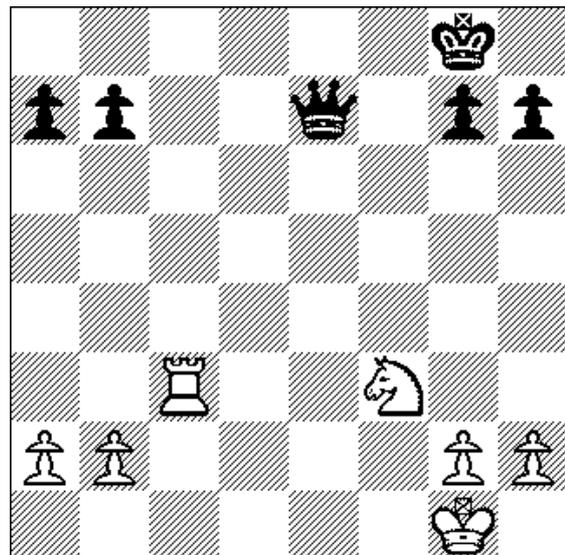
In distinction to the 3 minor pieces vs rook imbalance, however, here the bonus is significantly smaller, because the stronger side possesses just a single non-pawn piece more, which renders coordination among pieces somewhat better, but not to the extent as a plus of 2 non-pawn pieces would ensure.



more pieces, of course, will only increase the edge for the side with the 3 minors

Frequency: infrequent

Rook and minor piece vs queen



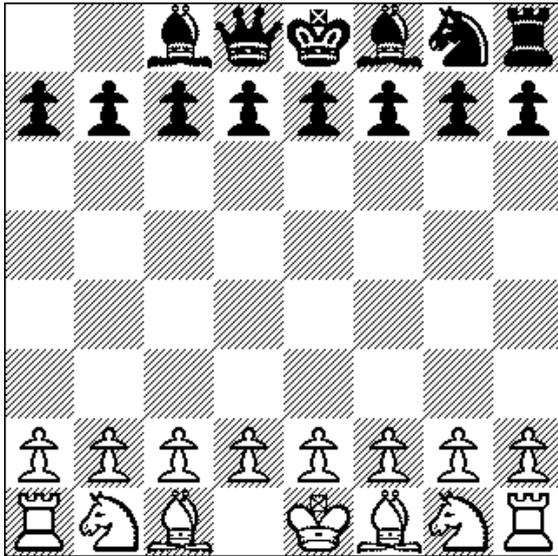
white should easily hold that, in spite of the huge material deficiency

Value: bonus, 60cps, both in the mg and eg, for the rook and minor piece

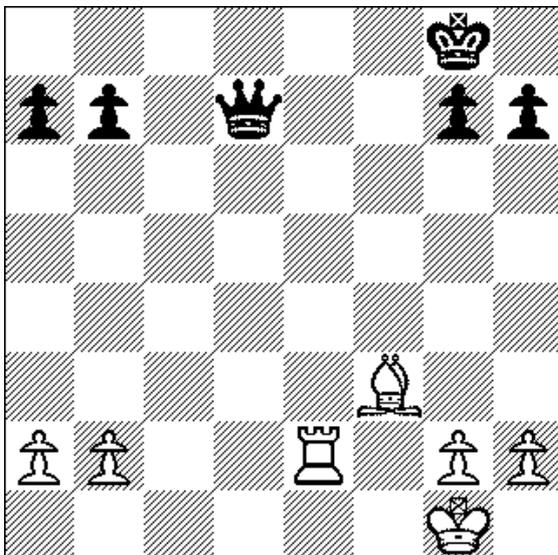
Additional information: the bonus is given for the nice ability of the rook and minor piece to coordinate among themselves while attacking enemy objects, pawns, pieces and squares of the king shelter, and defending vital squares on the board, primarily the own king shelter, as well as for quite successfully defending each other. A lone queen, for example, can not capture a minor piece defended by a rook, or a rook, defended by a minor piece, nor it can take any enemy pawn supported by one of those pieces.

Similar configurations frequently lead to drawish fortresses in the endgame(see the diagrammed position).

With the presence of more pieces on the board, the relative advantage of the rook and minor piece only increases, as more pieces guarantee better general coordination.



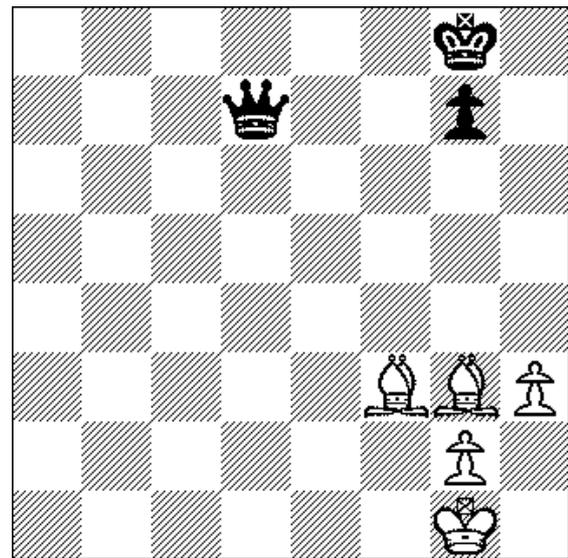
some humans, and too many top engines too, might be surprised to know that above position is mostly drawn, at least very very close to being a perfect draw; I guess, statistically, by perfect play, and a bit of randomness, black should not win more than 20% of the games, with the rest coming to a legitimate drawn conclusion



having a bishop instead of a knight changes nothing: still pretty much drawn

Frequency: frequent

2 minor pieces vs queen

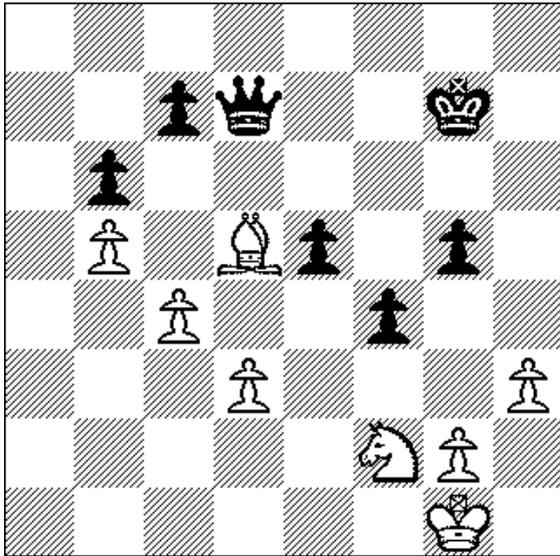


in spite of the huge material deficit, white has excellent drawing chances; in any case, winning such endgames is extremely long-winding and difficult, frequently over the margin of the 50-moves chess rule, everything will depend on one or 2 small details, the eye-striking conclusion however will always be that the material lead by a couple of pawns for the stronger side is somewhat unreal

Value: bonus, 40cps, both in the mg and eg, for the 2 minor pieces

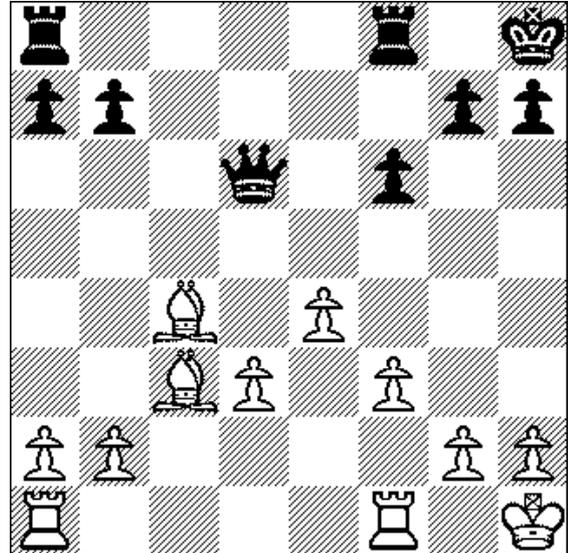
Additional information: the bonus is given for the better coordination of the 2 minor pieces. They are able to:

- much better defend each other, making enemy captures quite unlikely
- excellently defend different vital points on the board, as otherwise weak own pawns, squares of the king shelter, etc.
- frequently make enemy pawns permanently backward
- successfully support the march to promotion of possible own passed pawns, as they can control squares on the promotion path the side with lone queen simply can not defend

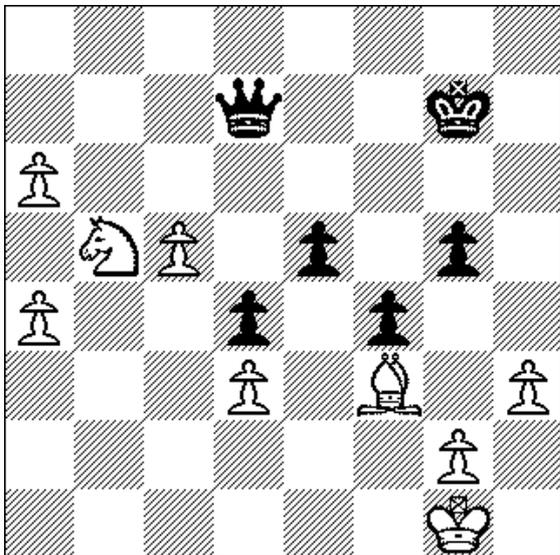


well, e5 pawn is permanently backward, e5-e4 obviously loses the pawn, c7 pawn is permanently backward, if it were not for the white bishop on d5, black could have pushed c7-c6, getting rid of the weakness, g5 pawn is permanently backward too, if it were not for the white knight on f2, black could have attacked on the kingside with g5-g4, now this is impossible

With more pieces on the board, the relative advantage of the side with the 2 minor pieces only increases, of course, due to improved coordination with the remaining own pieces.



white has excellent winning chances, although some top engines and quite a few human players might be surprised



look at how pieces of lower power are indeed very good at supporting the march forward of own passed pawns; currently, white can play both c5-c6 and a6-a7, and the black queen can capture neither pawn, as the minors will support them

Frequency: infrequent