

One minor piece ahead *may* be enough

Marc Bourzutschky has been continuing to analyse 7-man pawnless endings using Yakov Konoval's programs, and several of their discoveries in endings with an advantage of one minor piece have overturned accepted wisdom. Some results have been reported in *EG*, but in March Marc circulated a review giving further results, and he has kindly allowed me to quote from this and from a supplementary e-mail received from him on April 22. These quotations are necessarily selective, but I hope they give a fair picture. As usual, I am standardizing notation even within quotations.

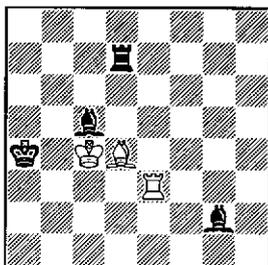
Two rooks and one minor piece against two rooks. These are among the endgames featured in a recent article by Marc and Yakov in *EG*. The extreme volatility of endings with four active major pieces means that hardly any position is free from immediate tactical threats, and conclusions regarding any "general result" are correspondingly difficult to draw. In *EG*, Marc and Yakov wrote of $2R + B \vee 2R$ that although the extra pair of rooks increased the attacker's winning chances as compared to $R + B \vee R$, they conjectured that the ending was still a draw in general, and of $2R + N \vee 2R$ that they still believed the ending to be a draw in general but "distinguishing wins from draws is very difficult". In his March review, Marc took a partially different view. " $2R + N \vee 2R$ has a winning line of 290 moves. I still think it is a general draw. $2R + B \vee 2R$ has a winning line with 138 moves, and I'm now inclined to consider it a general win." The article in *EG* includes the longest wins and some illustrative examples (one by Kling and Horwitz, the rest from play), and those with $2R + B \vee 2R$ do seem to bear out the revised conclusion; both the examples from actual play should have been drawn, but in each case the weaker side had the stronger under pressure in a position where the latter could not afford an exchange.

Queen and two minor pieces against queen and one minor piece. In March, Marc reported thus. "These look like general draws, except $Q + 2B \vee Q + N$. Some feature very long winning lines: $Q + B + N \vee Q + B$ (330), $Q + 2N \vee Q + N$ (282), $Q + 2N \vee Q + B$ (272). $Q + B + N \vee Q + N$ is the only remaining case, which we are running now." In April, Marc reported that $Q + B + N \vee Q + N$ was solved as well, with a maximal winning line of 317. "I'm not ready to make guesses about whether it is a general win or not."

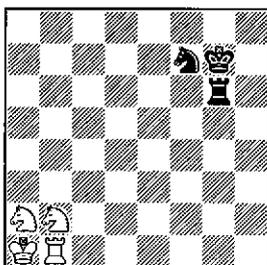
Rook and two minor pieces against rook and one minor piece. Surprisingly, *all* these appear to be general wins, provided that the stronger side can beat off the opponent's immediate threats. The first to be analysed was $R + B + N \vee R + B$, which is discussed in the article in *EG*. It has wins of length 226 with like bishops and 191 with unlike bishops, and these and some study busts are given in the article. Typically, Black is only one piece up, thinks he needs to gain another to win, and plays to gain it only to find that he has given stalemate or allowed a draw by perpetual harassment, and the new analyses show that he can win without immediately gaining another piece. The same applies in all sections of this report.

I haven't seen any details on $R + B + N \vee R + N$, but if $R + B + N \vee R + B$ is a general win then we would expect this to be won also, and Marc reported in March that indeed it was.

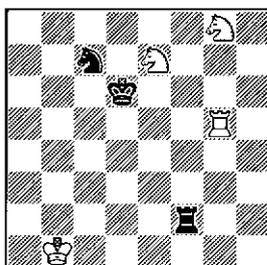
We would expect $R + 2B \vee R + N$ to be won and indeed it is, and in March Marc reported $R + 2B \vee R + B$ to be won also. Again, there are busts, and **1**, from a study by Jan Rusinek, *Thèmes-64* 1978, is particularly instructive. The composer's line is **1...Bxd4 2 Rd3 Bf1 stalemate**, but the simple retreat **1...Bb4** is enough to win even though White's men are centralized and Black's are poorly placed.



1 - Black to play

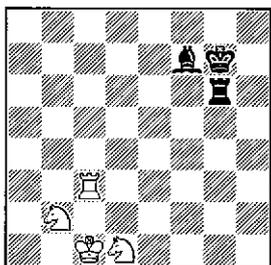


2 - White wins

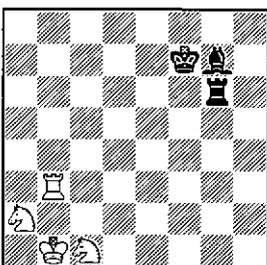


3 - reciprocal zugzwang

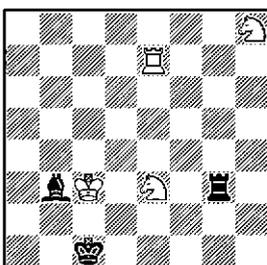
But yet bigger surprises were in store, as Marc was to report in April. " $R + 2N \vee R + N$ is most likely a general win. Quiet starting positions like **2** are lost for Black. The winning percentage is 81." The deepest reciprocal zugzwang is shown in **3**, a position Marc describes as "pretty awkward" for the stronger side. Black to move loses in 174, counting to mate or capture. "White to move can't disentangle, e.g.: 1 Kc1 Kc6! 2 Nc6 Nd5! 3 Nd4+ Kd6! 4 Nh6 (4 Nf5+ Ke6! 5 Ngh6 Kf6 6 Rg8 Ne7 7 Rf8+ Kg5! 8 Nf7+ Kg6 9 N5d6 Kg7) Ne3!"



4 - White wins



5 - White wins



6 - reciprocal zugzwang

And surely $R + 2N \vee R + B$ cannot be won also? But it would seem so to be. "The winning percentage is "only" 70, but this may be due to the many positions where the Knights are awkwardly placed in the starting position. As in $R + 2N \vee R + N$, it looks like White generally succeeds in driving the black King to the edge of the board into a position where even a minor piece exchange brings no salvation. Quiet starting positions like **4** and **5** are lost for Black." The deepest reciprocal zugzwang is **6**, and features a White knight trapped on h8. "White to move can apparently not disentangle, although it is difficult to understand. For example, after 1 Kd4 only 1...Kb2! draws. Black to move loses, although it takes White 115

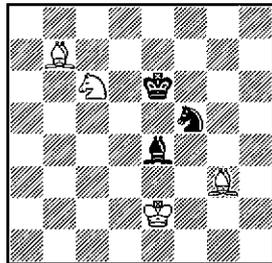
moves to finally move the Knight from h8, and almost another 100 moves to convert to a clear win.”

Marc’s April e-mail included a number of busts with $R + B/N \text{ v } R + 2N$, one of which was in a study which I had been more than happy to accept for my *diagrammes* column in 1997. Had anybody told me then that an apparently nondescript position with $R + B \text{ v } R + 2N$ might be a provable win for Black, I would have regarded the suggestion as absurd.

Overall, Marc in April commented thus. “I have now looked at about 150 studies in vdH-III that involve White trying to draw with rook + minor piece vs. rook + 2 minor pieces. According to the database, only about 50 of these are not obviously broken. Of the 100 or so broken ones, 20 were already known as cooked.” He added that there may be more casualties lurking where a relevant 7-man ending does not explicitly appear in the analysis, the composer having omitted mention of the line leading to it because he regarded the result as an obvious draw.

To me, this figure of “around 100 studies busted out of 150 examined” is much more revealing than the raw percentages of wins with White to play. The latter take account of all positions, sensible or not, and are inevitably dominated by short-term tactical considerations. But if two studies out of every three of a certain kind are now seen to be incorrect, composers have clearly been making an unsound assumption.

Three minor pieces against two. As expected, most of these endings are drawn, but there are two exceptions. “ $2B + N \text{ v } 2N$ is an obvious candidate, since Black can never exchange Knights. Indeed, the winning percentage is over 93%, and playing through a few lines suggests that this ending is a reasonably straightforward win, at least it doesn’t look harder than $2B \text{ v } N!$ More difficult is $2B + N \text{ v } B + N$, which has a winning percentage of just under 88%. This ending also appears to be a win. I have tried a few fortress candidates, such as with the defending Knight on b2 and the defending King nearby, and the defending Bishop’s color either white or black. It looks like these fortresses cannot be maintained. For example, with the defending Bishop on the a1-h8 diagonal, the attacker usually succeeds in cutting off the Bishop from the a1 corner with his Knight. Another try is the “Karstedt” fortress with the Bishop on b2 and the Knight on d4. This works against a Queen, but not here because White can simply double-attack the Knight with the King and one of the Bishops. Of course, there may be other fortresses I have not thought of.” 7, a few moves into the longest win, reinforces the supposition that White will win once he has got organized.



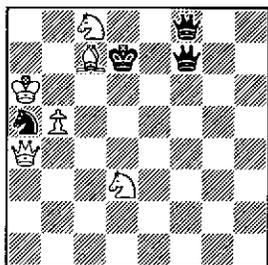
7 - White to play wins

So the old rule “one minor piece ahead only draws” is no longer a reliable guide, and it seems that the following should now be regarded as presumed wins:

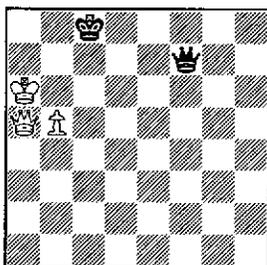
- $2B + \text{anything} \text{ v } N + \text{the same}$
- $2R + B \text{ v } 2R$
- $R + 2B \text{ v } R + B$
- $R + B + N \text{ v } R + B/N$
- $R + 2N \text{ v } R + B/N$
- $2B + N \text{ v } B + N$.

The cases $Q + R + B/N \text{ v } Q + R$ have yet to be analysed, but I would expect them to be so volatile that useful conclusions cannot easily be drawn.

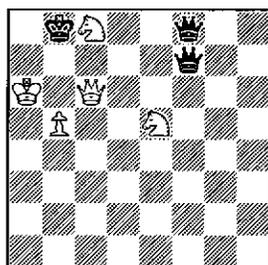
Recently published British originals



1 - win



1a - 2...Kxc8, after 3...Qxf7



1b - main line, after 4...Kb8

I shall be giving a proper account of John Nunn's 50th Jubilee Tourney next time, but I think I should give the solitary British success straight away even though it is somewhat controversial.

This is Jonathan Speelman's 1, which obtained 8th Commendation, and the chief point of controversy lies not in the two Black queens but in certain aspects of the play. The natural 1 Ne5+ is correct, and 1...Kxc8 2 Nxf7 leaves White a comfortable piece and pawn ahead. 1...Kxc7, therefore, and now 2 Nxf7 leads to 2...Qxc8+ 3 Kxa5 Qa8+ with perpetual check or a Q v Q + P draw. So White plays 2 Qxa5+, and if Black plays 2...Kxc8 we have 3 Nxf7 Qxf7 (see 1a) and the computer says "win".

Black therefore tries 2...Kb8 allowing 3 Qb6+, and if 3...Kxc8 then 4 Nxf7 Qxf7 gives 1a with the White queen on b6 and again the computer says "win". Hence 3...Ka8, and 4 Nxf7 Qxc8+ is again a draw. Play continues 4 Qc6+ Kb8 giving 1b, and still the capture on f7 fails (5 Nxf7 Qa3+ 6 Kb6 Qa7+ and stalemate). But White has 5 Nd7+ forcing 5...Qxd7, and now not 6 Qxd7, when 6...Qa3+ 7 Kb6 Qe3+ draws, but the checkers-type sacrifice 6 Qa8+ gaining two queens for one (6...Kxa8 7 Nb6+ Kb8 8 Nxd7+ and 9 Nxf8). If instead 6...Kc7 then 7 b6+ Kd8 8 Na7+ Ke7 9 Nc6+, and 9...Qxc6 10 Qxc6 gives yet another Q + P v Q position which the computer reports as a win; alternatively, 9...Kf7 10 Ne5+ Ke6 11 Qxf8, and the computer says "win" after both 11...Kxe5 and 11...Qa4+ 12 Kb7 Kxe5.

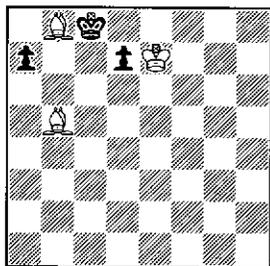
But could you undertake, if challenged, to demonstrate the win in positions such as 1a? You will surely be in a minuscule minority if you can. Against best defence, it takes 38 moves to force the promotion of the pawn from 1a, 40 moves from the position after 3...Kxc8 4 Nxf7 Qxf7 where the White queen is on b6, and 34 moves after 6...Kc7 and 9...Qxc6 10 Qxc6; only if Black plays 9...Kf7 followed by 11...Kxe5 or 11...Qa4+ 12 Kb7 Kxe5 is the conclusion at all crisp (7/9 moves to promotion respectively). John expresses some reservations in his commentary: "Solvers can hardly be expected to know such databases by heart, so they are reduced to 'assuming' that the positions are winning, which isn't totally satisfactory". I have to say that I would put the matter very much more strongly. If the main line of a study is to stand out properly, the sidelines musn't just be theoretically won, they must be *simply* and *obviously* won; and this hardly seems to be the case here.

A tale of two bishops against one

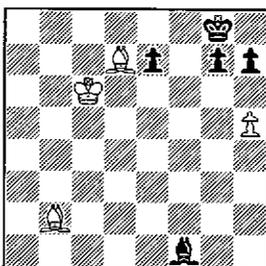
The second edition of my book *Some Problems by Auguste d'Orville* prompted Paul Michelet to develop one of his ideas into a study, and although there are several predecessors the result seems to me to be not without interest.

The story starts with **1**, which is from d'Orville's 1842 book *Problèmes d'échecs*. A move such as **1 Bxa7** will win but not in four, and the solution is **1 Ba6+! Kxb8 2 Kd6 Ka8 3 Kc7 d5/d6 4 Bb7**. The same finish was of course brilliantly reached by Troitsky using a pawn instead of a bishop (White **Kd5, Be3, Pg6**, Black **Kf8, Pe7/h7**, win by **1 Bh6+ Kg8 2 g7 Kf7 3 g8Q+!!** etc), but in the present exercise we shall retain and make use of both bishops.

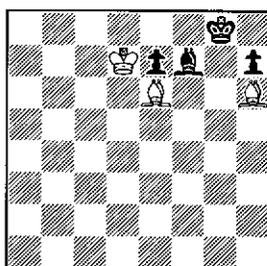
(A digression: was Troitsky aware of the d'Orville problem, or did he rediscover the idea independently? On the evidence of the autobiographical note as translated at the front of his 1937 *Chess Studies*, almost certainly the latter. D'Orville's book was published in Nürnberg, probably in an edition of a hundred or two, and offered for sale through *Le Palamède* in Paris, and quite a few copies have survived though I personally do not possess one. Most of his problems were then reproduced in Alexandre's *Collection* of 1846, which appeared in editions published in Paris, London, and Leipzig. However, Troitsky refers to himself as having only studied "Dufresne" and "Berger", and had he also studied Alexandre I think he would have mentioned the fact. The first volume of Dufresne's *Schachaufgaben* contained a few problems by d'Orville, but this particular one was not among them, while Berger's *Theorie und Praxis der Endspiele* was a theoretical treatise rather than a problem collection and on the evidence of the 1922 edition appears to have contained nothing by d'Orville at all.)



1 - mate in four

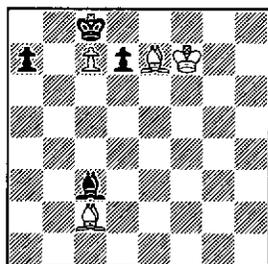


2 - win

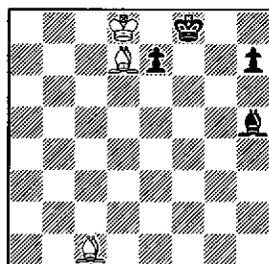


2a - after 7 Kd7

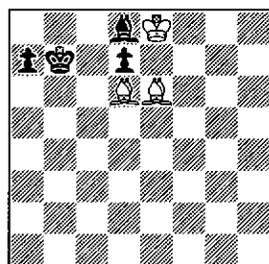
I'll come to Paul's version in a moment, but let us first look at the earlier realisations of the idea. Harold van der Heijden's invaluable "Endgame study database III" gave me five of these, the earliest being Leonid Kubbel's **2** (2nd Comm, 64 1936). **1 Be6+ Kf8** (else mate in three) **2 Kd7 Bb5+** (2...g6 3 h6 and mate, 2...h6 3 Ba3 g6 4 hxg6 Bd3 5 Bf7 and White will win) **3 Kd8 Be8 4 h6 gxh6 5 Bc1 Bf7 6 Bxh6+ Kg8 7 Kd7!** (see **2a**) and even 7...Kh8 doesn't help because 8 Bxf7 isn't stalemate.



3 - win

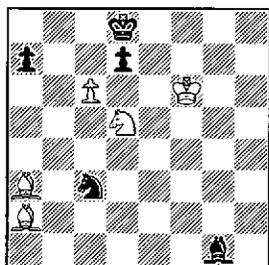


4 - win

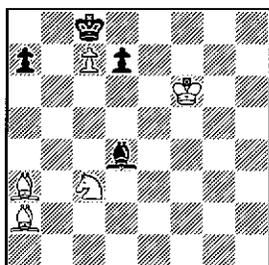


5 - win

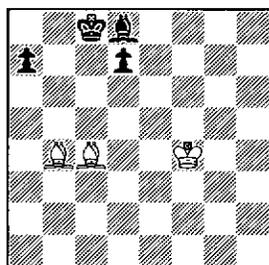
3 (I. Ohmann, *Revista Română de Șah* 1939), 4 (Alexander Hildebrand, *Skakbladet* 1947), and 5 (Ernest Pogosyants, *Bryanski Komsomolets* 1978) all arrive at the same finish rather more quickly. In 3, **1 Bd6 Ba5** (Black must go for the pawn to have any chance at all) **2 Bd3 Bxc7 3 Ba6+ Kb8** (3...Kd8 **4 Be7** mate, which is a nice touch) **4 Ke7** and we have a reflection of 2a; in 4, **1 Bh6+ Kg8** (1...Kf7 **2 Be8+**) **2 Be6+ Bf7** (2...Kh8 **3 Kxe7 Bf7 4 Kf8** and mate) **3 Kd7**; in 5, **1 Bd5+ Kc8 2 Bc4! Bc7 3 Ba6+ Kb8 4 Ke7**.



6 - win



6a - after 2...Bd4+



7 - win

The most recent setting is 6 (D. Dashkoria, V. Kalandadze, and R. Martsvashvili, HM, Akobia-60 JT 1997). After **1 c7+ Kc8 2 Nxc3 Bd4+** we have 6a, and the natural **3 Ke7 Bxc3 4 Bd6 Ba5 5 Bc4 Bxc7 6 Ba6+ Kb8** gives a reflection of 2a but with White to play. The correct line is **3 Kf7! Bxc3 4 Bd6 Ba5 5 Bc4 Bxc7 6 Ba6+ Kb8 7 Ke7**, after which we again have Black to play; it's the same finish as before, but this time there is a try in the lead-in play which exploits the fact that position 2a is reciprocal zugzwang. Even so, I wonder if the study would have got an HM had Harold's database been available at the time.

And Paul's version? Not knowing of the above (I sent them to him afterwards), he looked at the position with fresh eyes, and came up with 7. Play now goes **1 Ba6+ Kb8 2 Bd6+ Bc7 3 Ke5**, the square e5 being just as good for the White king as e7 was, and if 2...Ka8 then **3 Kf5** and the White king will walk in on the light squares. It is all very much simpler, but the starting position is utterly natural and uncontrived, and the White king starts further from the action than in any other setting. Despite the prior work, I think it deserves an airing.

News and notices

Meetings. In the hope of attracting people who would like to meet other study enthusiasts but do not find a Friday evening in London NW9 convenient, I have decided to try hosting occasional Saturday afternoon study meetings here in Harpenden. The first of these will be on **Saturday June 17**, with a light buffet lunch at 1230 and gentle chat from 1400 onwards. Harpenden is about 25 miles north of London (M1, A1, Thameslink railway or whatever they now call it), and a map will be sent on request (or type "AL5 4NX" into an Internet streetfinder program). Prior notice this first time will be helpful, please, so that we know roughly how many to expect, but nobody who receives *BESN* from me will be turned away even if he or she turns up unannounced at the last minute. The more, the merrier.

Needless to say, the normal *EG* readers' meetings will continue, and the next one will be at 17 New Way Road, London NW9 6PL, on **Friday July 7** at 6.00 pm. Non-subscribers welcome, but please bring £5 towards the buffet (except on a first visit). Bring the latest *EG* with you.

Change of address. Ian Watson, who accepts originals for *Correspondence Chess*, is now at Parapet House, Maidstone Road, Lenham, Kent ME17 2QJ. His e-mail address (ian@irwatson.demon.co.uk) remains unchanged.

Ken Whyld's library. I understand that this has now been made available for public access, and that it will have been unofficially inaugurated at a meeting on May 19. More next time.

World Chess Composition Tournament (see March page 327). David Sedgwick reports that he has received one submission, but would very much appreciate more. To facilitate discussion, he would like to receive them by 20th June if ready, 20th September if possible and 20th December at the latest.

Correspondence. Readers may have seen elsewhere that I have been asked by David Pritchard's widow Elaine to complete the second edition of his *Encyclopedia of Chess Variants*. This will not affect the quarterly production of *BESN*, which I have said will be treated as a prior commitment, but it will assuredly affect my attention to correspondence; there are times when the only way to maintain progress is to do the day's scheduled editorial work first, and to try and catch up on the correspondence backlog in any time that may be left over. I fear this will mean that some of my correspondence will be even more discourteously dilatory than it has been in the past, but things were (briefly) up to date in mid-April, and if more than a month should pass in the future without a reply a gentle reminder will be in order.

Anybody wishing to give notice in BESN of any event, product, or service should contact the Editor. There is no charge and no account is taken of whether the activity is being pursued for commercial profit, but notices are printed only if they seem likely to be of particular interest to study enthusiasts. Readers are asked to note that the Editor relies wholly on the representations of the notice giver (except where he makes a personal endorsement) and that no personal liability is accepted either by him or by any other person involved in the production and distribution of this magazine.