The back-home fairy condition

Nicolas Dupont

I got the back-home idea several years ago and, after having composed an educational example, I felt such a fairy condition could be of great interest. I sent the back-home rules together with this illustration to Mario Richter, who was able to show its correctness via a partial programming of the condition, mainly for proof games.

Then came the Trillon Memorial Tournament, asking for fairy proof games. The Director, Laurent Riguet, kindly accepted back-home entries although this fairy condition wasn't officially defined. But the judgment took a long time and hence "squeezed" back-home: it was impossible for me to publish the rules otherwise my entries for the Trillon would have been no more anonymous.

The goal of this article is, finally, to officially define back-home (section 1), as well as to provide illustrative examples. The rules seem easy to understand but lead to practical difficulties, so I will begin with two 0-positions (section 2) in order to get started. Two educational examples will follow (section 3) and, lastly, three "real" problems (section 4).

Section 1: Definition of the back-home fairy condition

a) If a piece can legally move to the square it occupied in the initial position of the problem, it must move to this back-home square.

b) Back-home moves are prevalent to the virtual capture of the opponent King by any piece, i.e. "checks are fairies".

c) If several back-home moves are legal, the side-on-move chooses which one to play.

d) The back-home square of a Pawn which is promoted during the solution is the initial square of this Pawn.

Although they look easy to use, those rules may actually lead to rather complex reasoning, in particular to detect legal moves, checks and checkmates. Indeed a back-home move is legal if it doesn't allow the opponent side to virtually capture our King. A particular case is when this opponent side has itself a legal back-home move to play, as claimed by rule b).

It implies that some induction process may appear in order to verify back-home move legality. Nevertheless it seems it never leads to infinite loops, although it may lead to a rather delicate exploration of what can happen in the future of the position. This is why we continue with:

Section 2: Getting started

0-position A:
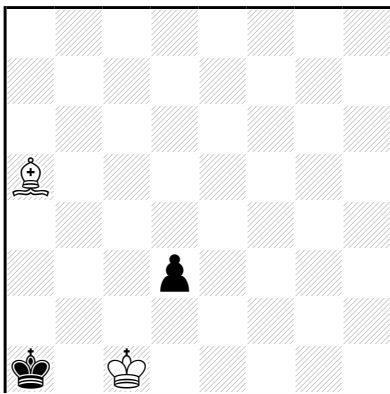
Back-home

As an application of rule b), 1.**Bc3 is not a checking move** as White doesn't threaten to capture the opponent King. Black may answer with 1…Ka2/b1/b2 (the royal contact is allowed as this is legal in this situation). As an application of rule a), the game must continue with 2.Ba5 Ka1.

Remark that **Black can't answer with 1…d2** as this move is illegal! Indeed if 1…d2 is played, then the back-home move 2.Ba5 is illegal as it lets the White King be threatened by the Black Pawn, and thus the Black King is threatened by the White Bishop!

So we can see here a strange phenomenon: The move 1…d2 seems to be a check but is in fact an auto-check as it disallows the back-home move 2.Ba5… It is of the same spirit as, for example, in Madrasi: if a King is observed by an adverse paralyzed unit, this King's side must take care not to play a move which de-paralyzes this unit!

0-position B:
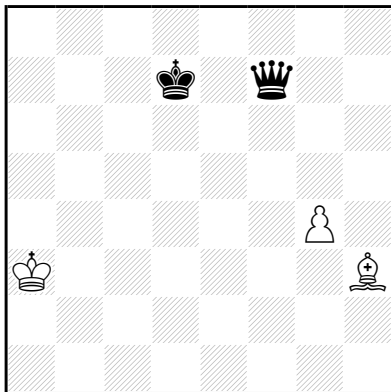
 Back-home

The move 1.g5+ is obviously a check as the Pawn can't go back-home. Suppose the game continues with 1…Kd8 2.g6. Then the back-home move 2…Kd7 is illegal, hence the game may continue with 2…Qh7 3.g7, cutting the Queen's back-home road.

Now **3…Qxh3 is legal but not a checking move** as Black will be forced to play next the back-home move Kd7, as it is now legal. On the contrary, **3…Qd3 is a checking move** as Black threatens the opponent King (4…Kd7 would be illegal).

An easy way for White to parry this check is obviously to move its King, but another way is to allow Black to play its back-home move 4…Kd7! For example White may play 4.Bf1 and, after the unique Black legal answer 4…Kd7+, White may play 5.Bxd3 as its back-home move 5.Bh3 is illegal.

Is it legal for White to play e.g. 4.Bg4, keeping the pressure on d7? The answer is no, as 4…Kd7 would then be illegal and hence 4.Bg4 would not parry the check 3…Qd3+. Indeed 4…Kd7 would be illegal as the back-home move 5.Bh3 is illegal too (it lets the White King be threatened by the Black Queen).

Section 3: Educational examples

Nicolas Dupont
France-Echecs 2013
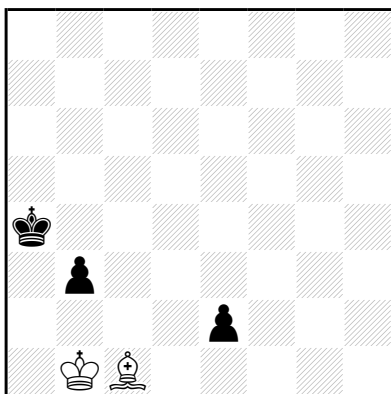

hs#3.5   (2+3) C+
Back-home

1…e1=B 2.Ba3 b2 3.Kc2 b1=Q 3.Bc1 Qb3#

From rule d) the back-home square of the promoted Be1 is e2, hence no back-home move is legal for this unit. The move 3…b1=Q is not a check as the promoted Qb1 must go back-home to b3.

From rule c), White has the choice between its 2 back-home possibilities 3.Kxb1 and 3.Bc1. Of course it chooses the latter as we are in a help setting. Finally the mating move 3...Qb3# is forced as this is the only back-home possibility for Black.

Note that this problem would also be correct under the h#z3.0 stipulation (mate-zug), as the pre-terminal move 3.Bc1 is not a check.

Nicolas Dupont
Original
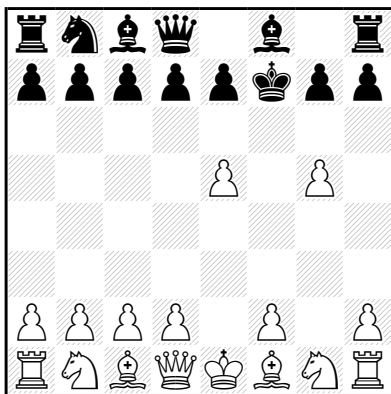
PG 7.5   (16+14) C+
Back-home

1.e4 f5 2.e5 f4 3.Qg4 f3 4.gxf3 Sh6 5.Qh5+ Sf7 6.f4 Sg5 7.Qd1 Kf7 8.fxg5

This is the back-home proof game I sent at first to Mario. Obviously, for such a proof game, the back-home square of a given unit is the one occupied in the initial game array, not in the diagram position.

This diagram position raises a question: how has the Black Knight been captured? Indeed it is almost impossible for such a leaper to go more than one move ahead from its initial position, except to cover a check!

The beginning of the solution allows the White Queen to move without being obliged to then go back-home. The key sequence is 4...Sh6 5.Qh5+ Sf7 as the Black Knight is now free to move to g5 and be captured on that square.

Remark that the fairy condition allows a rather dense content even for this kind of short proof game: a circuit from the White Queen together with an "impostor" Pawn g5 (not coming directly from g2), and a Black side almost "at home".

Section 4: Illustrative problems

I hope that, at this point, each reader has understood back-home well enough. So in this last section I will provide fewer explanations to the solutions.

The first problem is a series one. A back-home series problem is rather special as, without the help of another fairy condition, it is difficult to develop a back-home series. Indeed each move should generally be followed by its back-home move.

Christian Poisson
France-Echecs 2013
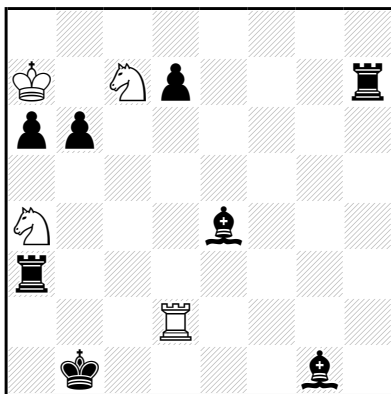

ser-#9   (4+8)   C+
Back-home

1.Sxb6 2.Sxa6 3.Rxd7 4.Rc7 5.Kb8 6.Sa4 7.Sb4 8.Rf7 9.Rf1#

At the beginning, White is self-pinning all its material so that, after the key-move 5.Kb8, the Knight on a6 is free to move to b4, making the Rook on c7 also free to move!

I let the reader convince himself that the order of the moves is unique (an easy application of the main rules). It is more difficult to see why Black is checkmated after the last move, even if White has a back-home possibility with its King. This goes more or less as in 0-position B.

It is also interesting to understand that 8.Rg7 9.Rxg1 does not lead to a checkmate. The reason is that, in this case, Black can defend itself by playing its Rook, allowing the White back-home move Ka7. Note that this defense is impossible in the solution, as the back-home square a7 is doubly observed.

Christian Poisson
France-Echecs 2013
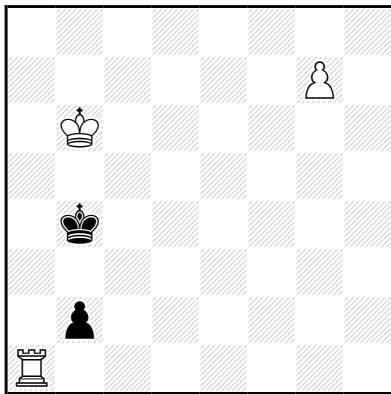
h#3.5   (3+2)   C+
b) Kb4->d6
c) Kb4->e5
Back-home

    1...g8=B 2.b1=S Ra5 3.Sa3 Rb5+ 4.Ka4 Bb3#
b) 1...Re1 2.b1=S Re5 3.Sc3 g8=Q 4.Sd5+ Q×d5#
c) 1...Rg1 2.b1=B Rg6 3.Bf5 g8=Q 4.Kf6 Qg7#

A very fresh and surprising problem! This is incredible that the three solutions are non-dualistic while using so many fairy effects…

Here too, the reader should have carefully read the other sections in order to understand why those solutions end with checkmate and why other sequences don't.

For example, the following sequence is a nice try for b):

1…Re1 2.b1=Q g8=Q 3.Qb2+ Qb3 4.Qc1 Qe6

This is fully legal and non-dualistic but doesn't end with a checkmate! Indeed, as the Black back-home move Qb2 is illegal (while threatening the White King, this move would disallow the White back-home move Ra1, hence a threatened Black King), Black is free to play another defense, e.g. Qc2, and now White must play Ra1.

I end this back-home presentation with my favorite problem, a proof game jointly composed with Michel. The diagram position shows two "free" Black Knights, and we already know that it is very difficult to make them free as they are very reactive to the back-home constraint. In fact no less than 5 switchbacks and 2 circuits are needed to reach the following light position in 21.5 moves under the back-home condition:

Michel Caillaud & Nicolas Dupont
Mémorial J.M. Trillon 2012
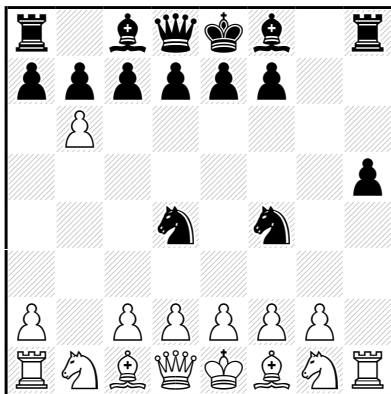
PG 21.5   (15+15)
Back-home

1.h4 g5 2.hxg5 h5 3.g6 Bh6 4.g7 Sf6 5.g8=S Bf8 6.Sh6 Sg8 7.Sf5 Bh6 8.Sd6+ Kf8 9.b3 Kg7 10.b4 Sf6 11.Se8+ Sxe8 12.b5 Sd6 13.b6 Sc4 14.Ba3 Sb2 15.Bb4 Sc6 16.Bc3+ Sd4 17.Qc1 Sd3+ 18.Kd1 Sf4 19.Ke1 Kf8 20.Qd1 Ke8 21.Bb2 Bf8 22.Bc1

The first step ends with 11…Sxe8, making this Knight free to move as it is now two moves ahead from its back-home square. The next key sequence is 14.Ba3 Sb2, making the Bishop free to move in its turn, in particular to give check! After 16.Bc3+ Sd4, the White plan of Black Knight's liberation is achieved, and the last part of the game it to allow each non-thematic unit to return to its home-square…

I didn't present any problem mixing back-home with another fairy condition, but some tests show it seems to work pretty well. Christian didn't especially program such mixing, so WinChloe is mainly working by itself… There is no difficulty with e.g. various Circe genres, Take & Make, etc. A Madrasi-paralyzed unit can't go back-home, which is the best convention to my eyes!

I hope I have convinced the readers that back-home may lead to many creative possibilities, and hence that composers will enjoy further develop this condition!