Nowadays it seems almost a favourite chess past-time of many to check studies for correctness now that we have strong chess playing software and “perfect” EG TB’s (at the time of writing all six man endings, except for some unimportant ones, are in the public domain). People send me their claims about studies for inclusion in my database (thanks!), and although the vast majority of these seem to be correct, in my view still quite a lot of the claims are only minor duals.

By trying to do some categorization and giving a lot of examples, I hope that this article helps to shed light on the difficulties. An earlier attempt was made by John Roycroft (“Towards a typology of duals in studies”) in EG117 vii1995, but I believe that there were too many dual categories in his paper, and I failed to retrieve any later elaborate use of his classification (including AJR himself). Also other composers outlined their view on the topic in (translations of) articles in EG: Aleksandrov & Troitzky (EG119, p. 740), Dobrescu (EG123, pp. 34-35), and Beasley (EG153, p. 305).

DEFINITIONS

First I supply some definitions (often in my own wording, but principally not original, of course) and explanations.

Bust, incorrection, demolition: Black has a refutation, i.e. White cannot accomplish the study’s stipulation (in a draw study, Black deviates from the solution and wins, in a win study, Black deviates and does not lose).

Such a claim is final and correct if the relevant position in which Black deviates is included in a (validated) EG TB. But other claims, initially looking justified, could well be refuted later when new EG TB’s, better hardware or software become available, making the study correct again (this happens quite often).

Cook, second solution: White is able to meet the stipulation in an alternative way which spoils the study. Sometimes, but not always “second solution” refers to a cook at move one.

(Minor) dual: White is able to meet the stipulation in an alternative way, but this doesn’t fully spoil the study. ‘It is a flaw and the degree of seriousness depends on where it occurs’ (Roycroft, Test Tube Chess, p. 291). This illustrates that some duals come close to a cook. Also there is the difficulty that “dual” refers to a single move (line) that might not spoil the study by itself, while more than one dual in a study does. Its interpretation is subjective and in fact is the reason for writing this article.

(Artistic) solution: The main line(s) and (thematic) tries intended (created) by the composer. In the main line he has control over the black moves (which are preferably, but not necessarily, the “best” moves), against which White should have a unique move all the time (duals excluded). Similarly, in a (thematic) try the composer controls the white pieces and Black should always have a unique move. In addition, the thematic try should have something in common with the main line.

Some people believe that a study with a bust but with a cook earlier on in the main line is rescued by the cook, but in 99% of the cases this view is incorrect. Such a study simply remains incorrect and in addition has a cook!
position with a unique winning line is not necessarily an artistic study. For that we need artistic content. The same line of reasoning (artistic content) applies to so-called “EGTB-derived” studies, but that discussion distracts from the main topic of this article.

**Lines:** *Analytical lines not belonging to the artistic solution.* The composer needs those lines only to prove the study’s correctness. Thematic lines, on the other hand, do belong to the artistic solution. This distinction is important, because it means that thematic tries should be free from duals (by Black!), while these are allowed in analytical lines. It would be a good idea that studies be presented (to judges, solvers) in two ways: only the artistic lines (very useful for books, magazines; only for these lines can points be earned during a solving contest) and a version with full solution including analytical lines.

**Sound (correct) study:** *A study meeting the stipulation without bust, cook but may have a dual.*

**Claim:** In many instances, the outcome of analysis following a claim is not unambiguous; i.e. there is no final proof that a study is correct. Since it is impossible (except for positions included in EGTB's) to analyze all possible moves until mate, it is important to know how we draw a conclusion about the claim (study correct or not). A position is considered to be a win if there is a sufficiently large material advantage. In quiet positions at least one extra minor piece (and there are also pawns of the same colour), or alternatively at least a rook or two extra minor pieces (no pawns of the same colour present) are needed to consider a position won. If someone, either (!) composer or cook hunter, claims that a certain position is won despite the fact that there is insufficient material for a general win, it is his duty to prove it. And the same goes when, despite a sufficiently large material advantage, someone claims the position to be a draw.

There is a good chance, by the way, that the endgame study world will be faced with major difficulties in this field in the near future. In many seven man pawnless endings it was discovered by using EGTBs that the advantage of an extra piece is generally sufficient for a win. As a consequence many studies, originally considered correct using the general assumption given above, proved to be incorrect after all. We have had that before, e.g. with the 0023.00 and 0116.00 endings. But it could well be possible that for “all” pawnless endings with more than 6 pieces the general rule is wrong.

**Duals**

Most of the problems with correctness claims focus on the decision whether an alternative possibility is a cook or only a (minor) dual. What follows below is my personal opinion and some may disagree with me. This might, however, eventually become the basis for a generally accepted decision document for judges (and composers) following a fruitful discussion in the pages of **EG**. Your views are welcome! I know that some purists state that every extra white possibility cooks the study. Although straightforward and easier to interpret, this does not do any justice to the study and the composer.

It would be very appropriate if a composer, upon submission, always claims minor duals himself. If in an endgame study database or a book, the dual is not indicated, it could well have been there in the original source. So claiming a dual should be accompanied by some historical research (checking the original source, or, in case of a classic, checking an anthology). But even the original source might not mention the dual when the composer did so upon submission.

There are quite a number of examples of duals. I try to categorize these below and supply examples.

**Promotion dual**

During the solution a pawn promotes and the promoted piece is usually captured instantly. In such cases besides the Q-promotion, also other promotions will work (not necessarily all). Promotion duals are only relevant in case of thematic studies (underpromotion studies).
**H.1** L. Centurini
*La Palamède* 1847, version *Handbuch* 1852

![Diagram](c6c8 0040.10 3/2 Win)

(H.1) The solution runs 1.e7 Bd8 2.e8B (e8Q? stalemate) wins, e.g. 2...Bc7!? 3.Bd7+ Kb8 4.Bxc7 mate. N. Nathan reported in *Schachzeitung* 1855 that another promotion also wins: 2.e8S Bh4 3.Bc7 Be7 4.Sg7 Bf8 5.Se6 Bg7 6.Sf4 Bd4 7.Sd5 Bc5 8.Kxc5. This version was probably intended as a didactic example. But had it been an underpromotion study we surely consider 2.e8S a cook.

**H.2** N. Rezvov
2nd Prize Ukraine Ty 1979

![Diagram](f1h2 0310.21 4/3 Win)


This is an example where two alternative underpromotions win. This could be considered a minor dual, but many will have more problems with it. Surely it also depends on the presentation by the composer. As a matter of fact, two secondary sources (Archakov’s 1987 *Shakhmatnaya Kompozitsia na Ukraine* #282 and Tkachenko’s 2002 *Polveka v Plenu* #003) give both promotions. So probably also the composer mentioned this. Does this mean that it is a minor dual? In EG128 (p. 275) Jürgen Fleck comments (EG#10865): “There is the dual 7.axb8S, of course, but this doesn’t look like a serious flaw to me”. But, seeing the rook promotions being important in this study (cf. lines), I would regard 7.axb8S to be a cook.

**H.3** N. Kralin
*Shakhmaty v SSSR* vi1985

![Diagram](b8h5 0310.54 7/6 Win)


This has, at move 5, the same problem as the previous study. In this case the whole study depends on underpromotions (cf. move 3), so I consider this a cook. In addition, it might well be that the composer did consider 5.hxg8B but believed that Black could draw.
H.4  E. Belkovich
beginner ty, Shakhmaty v SSSR x1955

b1c4 0010.11 3/2 Win

(H.4) 1.b6 Kb5 2.b7 e1Q+ 3.Bxe1 Ka6 4.b8R (4.b8Q? stalemate). But (judge, advisor) V. Korolkov indicated in the same issue that 4.b8S+ was to be considered a cook.

H.5  N. Kralin
3rd Prize Chervony girk 2002

c1f1 0310.21 4/3 Draw


H5 is an example of a study with promotion duals (M. Campioli, EGi55 i2005), 11.h8R and 11.h8B. These duals do not spoil the study at all. There are hundreds (if not thousands) of similar cases. I suppose that it is not necessary to give more examples (see also H13).

In contrast, obviously, where White has another winning move instead of an underpromotion, the situation is also clear: cook. E.g. H.6) A. Troitzky, Trudovaia Pravda 1928, b2f4 0034.10 a5g7d6g6 3/3 Win: 1.sh5+ Kg5 2.g7 Bc3+ 3.Kxc3 Se4+ 4.Kd4 Sf6 5.Sxf6 Kh6 6.g8B (6.g8Q? stalemate) Kg5 7.Ke6 wins, but also 6.Sh5 (Se8) N. Kralin & O. Pavlov Sahovska Kompoziija 1995.

But even in the “easy” category of promotion duals there are examples where one could argue about the relevance of such a dual:

H.7  I. Akobia
Quartz x2001, correction i2002

h2c8 3141.22 6/5 BTM, Draw

(H.7) 1…Qh8+ 2.Kxg2 Qg8+ 3.Kh1 Qxf7 4.exd7+ Kxd7 5.e8Q+ Kxe8 (Qxe8; Sd6+) 6.Sd6+ Bxd6 7.Bg6 Qxg6 stalemate.

M. Campioli and A. Ettinger drew attention in Quartz vii2002 to the fact that 5.e8B+ also draws. Both promoted pieces attack both king and queen and the only black move is to capture the promoted pieces. In my view this is a promotion dual (a minor dual).

Tempo loss dual

In order to make progress White has to lose a move. This can be achieved by two triangulations (e.g. Kb1-a2-a1-b1 or Kb1-a1-a2-b1) or similar manoeuvres (Ra1-a3-a2-a1 or Ra1-a2-a3-a1; or Be4-c6-d5-e4, or Be4-d5-c6-e4). These triangulations or manoeuvres with the moves almost identical clearly do not spoil the study’s idea.
(H.8) 1.Kg1 Kh5 2.Kf1 Kh4 3.Ke1 Kh5 4.Kd1 Kh4 5.Kc1 Kh5 6.Kb1 Kh4 and now White makes a K-triangulation typical of this kind of study: 7.Ka2 Kh5 8.Ka1 Kh4 9.Kb1 (but also 7.Ka1 Kh5 8.Ka2 Kh4 9.Kb1 works perfectly well) and White has lost a move. 9...Kh5 10.Kc1 Kh4 11.Kd1 Kh5 12.Ke1 Kh4 13.Kf1 Kh5 14.Kg1 Kh4 15.Kh2 and now Black is forced to make a pawn move: 15...b6. White repeats the moves 1 to 15 (this includes the dual) several times, forcing pawn moves: 30...b5, 45...d5, 60...d4, 75...d6, 90...d5 until these are exhausted. 105...Kh5 106.Kg3 (avoiding 106.Kxh3 stalemate) and wins, e.g. 106...h2 107.Kxh2 Kh4 108.Bg2 Kh5 109.Bh3 Kh4 110.Bxf5.

Of course it is unthinkable that a composer overlooked this (even if the primary source doesn’t mention the dual). There are many examples of such studies, where the composer’s intention is usually to set a move length record or similar tasks (more economical setting). Probably J. Rayner’s study (HHdbIII#64836) of 1888 is the very first example of such a study.

**Alternative pathway dual**

In order to meet the stipulation, a piece has to follow a pathway from a certain square to another square, with the exact route being less relevant.

The previous example (H8) is a special case of this type of minor dual. And also the category that follows overlaps.

(H.9) Usually the primary source for this version (adding the first white move) is given as *Deutsche Schachzeitung* vii1902, but I recently came across a source that published the position one month earlier. 1.c7 Rd6+ 2.Kb5 Rd5+ 3.Kb4 Rd4+ 4.Kb3 Rd3+ 5.Kc2 Rd4 6.c8R! (6.c8Q? Rc4+ 7.Qxc4 stalemate) 6...Ra4 7.Kb3 wins. In order to escape from the checks by the bR, the wK heads for c2: Both 4.Kb3 Rd3+ 5.Kc2 Rd4, or 4.Kc3 Rd1 5.Kc2 Rd4 lead to the same position. I still see from time to time reports in magazines where someone claims to have spotted a cook in the most famous study of all times!


Campioli himself reported a minor dual in EG155 i2005: Also possible is 6.Qa6+ Kd4 7.Kxb3 c1Q 8.Qa4+. The difference is that 6.Qa6+ gives Black a new possibility (6...Kc5), but this does not change anything (7.Kxb3 c1Q 8.Qa4+) although White has other options (which are irrelevant to the study’s correctness). The dual also deprives Black of a move (6.Qc6+ Bc5 7.Qa6+) but again this is not relevant.

(H.11) G. Nadareishvili
Magyar Sakkélet xii1973

b2a8 3000.45 5/7 Draw

(H.12) R. Réti
1st Prize Shakhmaty iv1928

1.Kh6 (1.Kg7? Be5 2.c4 Bxf6 3.gxf6 b4 ZZ) Be5 2.Kg7 Bh3 3.c4 bxc4 4.e5 Bxe5 5.bxc4 Bxf6+ 6.gxf6 Rh8 7.Kxh8 Kd7 8.Kg8 (8.Kg7? Ke6 ZZ) 8..Ke6 9.Kg7 ZZ wins. In EBUR iii2001 M. Campioli reported that he had found a dual in this famous study. There is no need at all for White to attack bpf7 immediately. Also, after 8.Kh7, the only sensible Black move is 8...Ke6, which is again met by 9.Kg7. Not a big deal, but it is remarkable that no-one seems to have spotted this possibility earlier!

(H.13) E. Planck
Schweizerische Schachzeitung 1900

1.h8Q+ Qb8+ 2.Kc1 Ka7 3.Qh7+ Qb7 4.Qg7 Ka6 5.Qg6+ (Not 5.Qf6+? Qb6 6.Qa1 Ka7 7.Qg7+ Qb7 ZZ) 5...Qb6 6.Qf6 Ka7 7.Qe7+ Qb7 8.Qg7 ZZ Qxg7 stalemate.

A. Koranyi drew attention in Magyar Sakkélet v1974 to the dual 5.Qh6+ Qb6 6.Qf6. Is it a problem that the composer only supplied the try 5.Qf6+ at move 5?

(H.14) J. Ulrichsen (HHdbIII#62623) spotted 10.g5 with a similar line (13.g8Q and 15.Qb8+). The pawn followed a different path to promote to Q.
A piece can move to two different squares with the same effect (often immediately resulting in mate or stalemate). For instance c1a1 0001.01 d4.a2 2/2 Win: Sb3 or Sc2 mate, or d2a1 0000.01 .a2 Draw: Kc2 or Kc1 stalemate.

In some (thematic) studies, e.g. pawn studies with very accurate K-moves, this type of dual may be disturbing.


(H.16) 1.Sf3 Bd3+ 2.Kg8 Bxc2 3.Bxc2+ Kxc2 4.b4 Kd3 5.b5 Ke4 6.b6 Kxf3 7.b7 h2 8.b8Q h1Q and now both 9.Qb7+ and 9.Qa8+ win bQ. This type of dual occurs very frequently.


H17 has many types of (minor) duals and cooks. At move 8 the wB is attacked. The bS should be prevented from escaping via g2, so the wB can move to different squares on the a8-h1 diagonal. In the solution as given (by the composer?) in The Problemist iii1970 both 8.Ba8 and 8.Bb7 are given, followed by 8...Kd4 9.Sc6+ K~ and 10.Kxh4. These are clearly alternative square duals. But it remains unclear why 8.Bh1 is not given as a further alternative square dual. The composer also overlooked that 8.Bc6 wins, because White has an alternative winning method: 8.Bc6 Kd4; now 9.Sc6+ is not possible; but e.g. 9.Sg4 wins because the bK now is unable to return to f3. It follows that 8.Bc6 is a cook. But obviously this alternative winning method also works after e.g. 8.Ba8 Kd4 9.Sg4.
But there are more problems in this study. Instead of 7.Kg5, also first 7.Ba8, 7.Bb7, 7.Bc6, or 7.Bh1 work (inversion of move duals). And finally, at move 5 there is another cook: 5.Sb4+ Kb3 and now not 6.Sd3 Kc2, which would be a waste of time dual (see next chapter), but 7.Sd5 and the EGTB tells us that the bS is unable to escape.

H.18 M. Miljanic
Yugoslavian Amateur Champ. 1996


In king staircase studies there is almost always a choice between two K-move to approach. E.g. in H18 both 9.Kb6+ and 9.Kc7+ allow 10.Kc6. And so on for the discovered checking moves by wK (note that e.g. 9.Kb8+ followed by 10.Kb7 is a genuine waste of time dual).

H.19 A. Troitzky
Bohemia 1907


J. Ulrichsen (HHdbIII#62888, 2003) found that 11.Se4 also works in a similar fashion. It attacks bB and after that moves to b4 or e3 (covering d2 and, naturally, c5) White has a tempo move with 12.g5 and bB can no longer protect both d2 and c5. Minor dual?

Waste (loss) of time dual

During a study White has a certain combination (manoeuvre, plan, move, etc) that wins (or draws, but that is a special case, see later on), but an alternative move doesn’t spoil the win and eventually White has no other way to use the winning combination after all. Only in a pure waste of time dual this will involve a repetition of the position. But often waste of time duals are much more difficult to interpret.

Hopefully the following elementary scheme will give some insight into the difficulty of the discussion: c7a7 0000.10 .b7 2/1 Win: White wins by 1.b8Q+ (or 1.b8R of course, but that is a promotion dual). White could also play 1.Kc8 because it doesn’t spoil anything. After 1…Ka6 2.Kc7 Ka7 we have a repetition of the position and it follows that White merely wasted time. But White could even play 2.Kb8 Kb6 3.Ka8 Ka6 but the only way to win remains promoting the pawn. A minor dual? Now put an extra black pawn at b3. Except for the winning 1.b8Q+ (1.b8R), White could again play 1.Kc8, but now Black forces by 1…b2 (threatening 2…b1Q) White to return to the winning move 2.b8Q+ (b8R). Minor dual.

A very useful rule in checking whether an alternative possibility is a waste of time dual rather than a cook is that Black should be able to force White to (go back and) use the combination. If this is the case it is a minor dual, and if it is not, probably it is a cook (but look at the elementary scheme above). If Black is able
to force White into a repetition of position, it is definitely a minor dual.

**H.20** A. Sochnev
3rd/4th Prize Birnov MT 2005

![Diagram](image1)


As rightfully indicated in EG167.16146 (where, by the way, the 1.Sxf7-try is indicated but not explained) White can also play 11.Sd3 Ke2 12.Sc1+ Kd1 13.Sb3 and we’re back in the main line (losing 4 plies). The wS followed an alternative route to b3, so there is no repetition of position!

**H.21** A. Akerblom
3rd Prize Mandil MT 1980

![Diagram](image2)


There is no need to hurry here. A. Pallier reported in 2006 the waste of time dual 10.Ra8 f1Q 11.Rf8+ drawing.

**H.22** J. Fritz
2nd Hon. Mention
Schakend Nederland 1980-81

![Diagram](image3)


Again in 2006 A. Pallier spotted a waste of time dual: 4.Rc8+ Kd~ 5.Rh8 with no relevant change to the position. The bK is still too far away.

**H.23** D. Przepiorka
Szachista Polski i1920

![Diagram](image4)

(H.23) The solution of this famous study runs: 1.Re2 Qg8 2.Sg7, and Qxg7 3.Re8+ Qg8 4.Rxg8+ Kxg8 and e.g. 5.a5 wins, or Kxg7 3.Rg2+ Kf8 4.Rxg8+ Kxg8 e.g. 5.a5 winning.
The composer gave a nice try here with 2.Sf6 Qg1 3.Re8+ Kg7 4.Rg8+ Kh6 5.Rxg1 stalemate, but by 3.Sh5, forcing 3...Qg8, White is able to return to the position after move 1 (A. Mongredien, *Funkschach* 20xii1925). This is a waste of time dual.

Is a waste of time dual allowed in a draw study? You can easily imagine a position where there is only one way to draw (e.g. a8c8 0000.11 .a6h5 1/1 draw): 1.a7 h5 stalemate, but White has time for 1.Ka7 h5 2.Ka8 h4 3.a7 h3 stalemate. This does not seem to me to be a cook. Also the examples H21 and H22 are examples of genuine waste of time duals in draw studies.

**H.24** H. Weenink  
*Tijdschrift* iii1918

1.Bg3 d3 2.Bxf2 d2 3.Be1 d1Q stalemate (or 3...d1R 4.Ke2 Ra1 e.g. 5.Bg3 drawing).

But Z. Mach (*Prager Presse* 1933) found 1.Bg5! Now both 1...d3 2.Bxe3 or 1...e2+ 2.Kf2 do not make sense, so Black has nothing better than 1...Kh2, now White has 2.Bh4 d3 3.Bxf2 d2 4.Be1 d1Q stalemate. So White just wastes time before executing the stalemate idea, a minor dual in my view. The fact that a possible dual appears here at move one perhaps makes it more serious (see below for some further discussion).

**H.25** V. Kovalenko  
5th commendation *Schach* 2004


But White has time for 6.h3 (M. Campioli, 2007) which does not change anything, so a minor dual.

**H.26** H. Geiger  
*Deutsches Wochenschach* 4xi1900

1.Kc6 Kd8 2.Rh1 Ra1 3.Rb1 Rxb1 4.b7 wins.

And 2.Rd7+ Ke8 3.Rd1 Ra1 4.Rb1! (J. Ulrichsen, HHdbIII#63839, 2003) is only waste of time.


But 4.Rxa7 also wins (J. Ulrichsen HHdbIII #62220, 2003) because Black has no defence against White’s combination. As a matter of fact, after 4.Rxa7 g4 White could still postpone by e.g. 5.a4.
The problem with this study is that at first it is not really clear what the main line is (the problems stems from the primary source and is reproduced in many secondary sources) and which lines are analytical or artistic. By presenting it as above the composer introduced an unnecessary dual, the obvious 2.Qe3+ (H. van der Heijden, HHdbIII#61711, 2000), because after 2...Kd5 the sequence 3.Qf3+ Ke6 4.Qe4+ is the only way for White to win. And we are back in the main line … at move 5! Is this an example of a “gain of time” dual? (just joking). Perhaps the composer wanted to demonstrate that 2.Qd7+ Ke4 3.Qg4+ Kd5 4.Qf3+ Ke6 5.Qe4+ is (indeed!) a waste of move dual? But, if so, he unfortunately introduced an alternative square dual: 4.Qg2+ (J. Ulrichsen, HHdbIII#61711, 2003).

But that’s not all. After move 7 a position arises which, except for the wK and the possible presence of extra black pawns or minor pieces, occurs quite frequently in other studies. White wins by 8.Qe8+ Kh7 9.Qh5+ Kg7 10.Sf5+. But 8.Qe6+ (J. Ulrichsen, 2003) is also possible: 8...Kh7 9.Qf5+ Kg7 10.Qg5+ Kf8 11.Qd8+ Kg7 12.Sf5+. Kh7 13.Qh4+ Kg8 14.Qe4+ Kf8 15.Qe8+ winning bQ. This looks quite different from the main line, but if Black plays 8...Kg7!? 9.Sf5+ Kh7 10.Qf7+ we’re back in the main line … at move 12.

A similar position occurs in H.30) V. Dolgov, Shakhmaty v SSSR vii1975, f3b2 4001.02 h1a1f4.e2g2 3/4 Win: 1.Sd3+ Ka2 2.Sb4+ Kb2 3.Qh8+ Kb1 4.Qh7+ Kb2 5.Qg7+

In H.31) M. Doré, The Problemist v2002, d6f1 0001.12 e8.e8c6h3 3/3 Win: 1.Sg7 h2 2.Sf5 Kg2 3.e8Q h1Q 4.Qe4+ Kh2 5.Qh4+ Kg1 6.Qe1+ Kg2 7.Se3+! Kh2 8.Qh4+ Kg1 9.Qg3+ winning, the Kleindinst waste of time dual is given as a try: 5.Qf4+(?) Kg2 6.Qg3+? Kf1 7.Se3+ Ke2. But of course, White wins immediately by 6.Se3+ seeing 6...Kg1 6.Qg3+ or 6...Kh3 7.Qh6+ winning bQ. What to think of that?

H.32 L. Ehrlich Wiener Schachzeitung v1929


This is a nice example of a study with accurate K-moves where a dual does not spoil the study at all. Instead of 5.Ke6, White also can play 5.Ke5 (J. Ulrichsen, HHdbIII#55580, 2004) but after 5...Re1+ White has to retrace his steps (although not literally) because now 6.Kf7 is not possible. So 6.Kd6 Rd1+ 7.Ke6(7) Re1+ 8.Kf7 and we’re back in the main line with a 4 ply waste.

Inversion (exchange) of moves dual (move order dual)A frequently occurring dual. During the main line, an inversion of moves is possible.

One could think again of thematic studies where an inversion of moves spoils the study, e.g. in a pure excelsior study (White wins by playing a4-a5-a6-a7-a8Q-h4, and an inversion of move dual like a4-a5-a6-a7-h4-a8Q spoils the idea).

H.33 J. Tresling Tijdschrift v1907


First 4.Ke2 is also possible. And 15.b6 a2 16.b7 a2 17.f8Q+ (J. Ulrichsen, HHdbIII #63040, 2003).
H.34 G. Sobeck & R. Staudte
commendation Uralski Problemist
Haldiki PCCC 2004

\[
\begin{array}{c}
\text{f2h2} 0004.34 5/6 Win
\end{array}
\]

(H.34) 1.Se8 Sxb5 2.axb5 a5 3.Sd6 a4
4.Sc4 Kh1 5.Sa3 Kh2 6.Sc2 Kh17.Kg3 Kg1

M. Campioli showed (EG 158 x2005) that
instead of the natural looking 10.Kg5 Kd3
11.Sa1 White can also play 10.Sa1 Kd3
11.Kg5, clearly an inversion of moves dual. I
would have felt uncomfortable had the com-
posers given 10.Sa1 as the main line.

H.35 A. Wotawa
Deutsche Schachzeitung x1942

\[
\begin{array}{c}
c2d8 0410.33 6/5 Win
\end{array}
\]

(H.35) 1.Rxb5 Rxb5 2.Bc5, and Kd7 3.b4
But also 1.Bc5 (K. Seeck, Deutsche Schach-
zeitung xi1964) 1...Kd7 2.Rxb5 Kxb5 3.b4 b6
4.Bf8 and this is only an inversion of moves.
But since 1...b6 (2.Bxb6+) doesn’t make
sense here, one of the main lines is lost. This
is a cook!

H.36 H. Lommer
France-Illustration xi1935

\[
\begin{array}{c}
h1h3 0815.85 14/9 Win
\end{array}
\]

(H.36) 1.bxa8R Rh5 2.Rh8 Rxb8 3.a8R
Rh5 4.Rh8 Rxb8 5.e8R Rh5 6.Rh8 Rxb8
7.e8 Rh5 8.Rh8 Rxb8 9.d8R Rh5 10.Rh8
Rxb8 11.f8R Rh5 12.Rh8 Rxb8 13.Ra7 Kg3+
14.Rh7 and wins, e.g. Re8 15.Se7 Rd8
16.Sxf5+ Kg4 17.Sh6+ Kg3 18.Se4+ Kh4
19.Sg8+ Kg4 20.Sgf6+ Kf5 21.Sxb2+ Rxd3
22.Rxd3.

In this famous 6-fold Rook-promotion
study the sequence of the rook promotions is
random, but that doesn’t disturb much. This
promotion record was recently beaten
(G. Costeff EG 132.11236 iv1999) with similar
duals from move 4 on.

H.37 A. Daniel
The Chess Amateur i1915

\[
\begin{array}{c}
a2a4 4171.02 5/6 Draw
\end{array}
\]

(H.37) 1.Qxd7+ Qxd7 2.Be8 Qxe8
It is possible to play the final combination in reverse order. So instead of 3.Rxe4+ Qxe4 4.Sxc3+ Bxc3 stalemate, also 3.Sxc3+ Bxc3 4.Rxe4+ Qxe4 stalemate (J. Ulrichsen, HHdb III#61110, 2003). Minor dual? This is a matter of taste. The more I look at it, the unhappier I become. Perhaps the composer thought that 3.Sxc3+ Ka5(!) refutes this line, but that is not the case: 4.Rxe4 and the bQ is unable to protect the bB (4…Qb8 5.Ra4+ Kb6 6.Rb4+ draws) and here also 4.Kxb2 works since bpe4 is inevitably lost. Looking again at the position I even spotted a further possibility for an inversion of moves: 1.Sxc3+ Bxc3 2.Qxd7+ Qxd7 3.Be8 Qxe8 4.Rxe4+ Qxe4 stalemate.

**VARIOUS CASES**

**Shorter win?**

It should be noted that the number of moves has nothing to do with the interpretation of a possible white alternative (cook or dual). When for instance the composer’s main line takes 20 moves and the EGTB tells us that White is able to mate in 15 moves by playing another move, then this is no more than a (strong) indication that there might be a cook, because there is a pitfall:

**H.38** H. Aloni

2nd commendation Szachy 1960

```
  h5g3 0001.13 3/4 Win
```

(H.38) This case was discussed by me extensively (in Dutch) in EBUR iii2006. After 1.a7 g1Q 2.Se2+ Kf2 3.Sxg1 h2 4.Sh3+ Kg3 5.Sf2 Kxf2 6.a8Q Kg1 the solution runs 7.Qa1+ Kg2 8.Qb2+ Kg1 9.Kxh4 h1Q+ 10.Kg3 winning.

However, the EGTB state that 7.Qa1+ (or 7.Qa7+) is mate in 14, while 7.Qg8+ is a mate in 13. “Quicker win, so cook” is the interpretation of many people in such cases. But after 7.Qg8+ Black plays 7…Kf2 (Kf1), because 7…Kh1 8.Qa2 Kg1 9.Kxh4 gets us into the main line, and White plays 8.Qd5. An interesting situation! The EGTB tries to postpone the mate as much as possible. In this position this could be done by playing 8…h3(?) or 8…Ke3(?) where every chess player would respond 9.Qh1 winning. More relevant is 8…Kg1. Then we play 9.Qg5+ Kf1 (Kf2) 10.Qxh4. Now the move that postpones the mate best is 10…Ke2(?) which is met by 11.Qxh2+ with an immediate win. But, of course, Black should play 10…Kg2 and 11.Qe4+ Kg1 12.Qe1+ Kg2 13.Qg4 h1Q 14.Qe2+ Kg115.Kg3 like in the main line, but with a considerable waste of time (!). The combination is the only way to win for White. So, not a quicker win, but waste of time!!!

On the other hand, if the composer’s line took 3 moves but there is a true alternative that would take White 250 moves, it still is a cook. E. Vlasák argued differently in Ceskoslovensky Sach, proposing such exceptions, but this is extremely difficult to define and maintain, most of the non-experts would not understand it and it would initiate “fairy” studies: If the “rule” would be 100 moves, move x leads to a win in 99 moves and move y to a win in 100 moves. Luckily the PCCC has never adopted artificial o.t.b. rules that only were invented for practical o.t.b. reasons, e.g. the 50-move rule.

**Get-out-of-check dual**

Black checks and wK has to play. The square to which it plays is of no relevance, or more than one move works.
Harold van der Heijden: A minor dual is not a big deal

H.39 V. Kalyagin
Hon. Mention Mitrofanov MT 2002

b6f7 0305.10 4/3 Draw


In EG149 vii2003 a dual was reported: 10.Kf2 with a similar main line (but see below). In fact it seems to me that most K-moves work, except for 10.Ke4? Sb3+, or 10.Kg4 Sxe2 wins (EGTB). But this does give some problems. After 10.Kg3 we indeed have a solution similar to the main line. But after 10.Kf2 or 10.Kg2 Sb3 11.Sd8+ Ke7 both 12.Sf7 (see main line) and 12.Se5 work! And an even bigger problem is 10.Kf4 because 10…Sb3+ is refuted by a different solution: 11.Kg5! As far as I'm concerned I consider 10.Kf4, 10.Kf2 and 10.Kg2 as cooks. What is your opinion?

Piece exchange dual

Two identical pieces can play to the same square. During the solution that piece is captured and the other piece takes back.


H.40 N. Cortlever
2nd Prize Rueb MT

e8a5 0058.25 7/9 Win


Minor dual at move 1?

This seems to be more serious to me. In my opinion this is often caused by an oversight of the composer. But not always! See also H24.

The classic example of an alternative not spoiling a study (Roycroft, Test Tube Chess, p. 254) is the following study:
H.42 R. Réti
*Hastings and St. Leonards Post* 1923, version *Münchner Neueste Nachrichten* 1928


The case was extensively discussed by Arthur Mandler in an article in *Prager Presse* (27iii1932), reproduced (in German) in *EBUR* iv1991. After Réti published H42, Mandler tried to find a version without the dual. He also quotes Réti (from letters) as defending his first setting because the initial version had extra material or did not show the mutual zugzwang. Mandler continued to search for a better setting after Réti passed away (26vi1929) but eventually came to the conclusion that Réti’s H42 was the best setting possible.

H.43 A. Kazantsev
*Rabochi Put* 1926


The cook/dual 1.Sf5 (*Bulletin Central Chess Club USSR* ix1966) is so obvious that it looks like a diagram error (I do not have access to the primary source). Maybe the composer overlooked: 1.Sf5 Kf7!? 2.Sd(h)6+ Kf8 and the knight cannot stop the black pawn. But of course now White has 3.Sf5 and the wS gets to d4 after all!


**Presentation of solution too long**

The composer, or source, continued the solution too long in order to illustrate his point. In fact quite a number of the studies in my database may suffer from this problem. Shortly after I started collecting studies I anticipated the availability of theme identification by a computer program. Of course, when a certain theme should be found, then the key position should be in the database (for instance the mate or stalemate). Nowadays I enter the text “eg” (which is short for “and White wins/draws, for instance”) into the main line(s) to have it both ways. Therefore, when someone reports duals that could be caused by this problem, I increasingly try to check primary and secondary sources. Some people are doing a great job by sending me several hundreds of dual claims sometimes in a single batch, and perhaps do not realize the amount of work involved in this for me…..
(H.45) 1.Bg4 c1Q 2.Sa4+ Kc2 3.Bf5+ Kd1 4.d8Q+ Ke1 5.Qh4+ Ke2 6.Bg4+ Ke3 7.Qg3+ Ke4 8.Qf3+ Ke5 9.Qf5+ Kd6 10.Qe6+ Kc7 11.Qb6 mate. This is the solution (subline omitted) I have in my database. I do not have access to the primary source, but I suppose that the moves after 5.Qh4+ just serve as an example, because instead of 10.Qe6+ (and other moves), 10.Qc5 is instantly mate! (Ulrichsen, HHdbIII#63422, 2003). And there is an earlier shortcut by 8.Sc5+ Kd5 9.Bf3 mate, although one has to look twice to see that Black is mated!

(H.46) 1.Sg6, and f1Q 2.e8S+ Ke6 3.Sc7+ Kf6 4.Sd5+ Ke6 5.Sgf4+ Qxf4+ 6.Sxf4+ Ke7 7.Sd5+ win, or f2xg6 2.e8Q f1Q 3.Qf8+ Ke6 4.Kg7 Kd5 5.Qa8+ Kc4 6.Qa6+ win. This was the solution I had in my database. J. Ulrichsen found the obvious cook 7.cxb4 (HHdbIII #63066, 2003). Again I do not have access to the primary source, but in the book Studien und Probleme von Carl & Johann Behting (Riga 1930) the first line does conclude with 6.Sxf4+ and wins. So the study is correct!

Another presentation problem has already been discussed in this article: the composer (or source) gives an exclamation mark, but upon closer inspection another move works as well. Here is another example:


The composers indicated an alternative square dual 2.Kd2 (but forgot the “Saavedra-dual” 10.Ke3 Rf1 11.Ke2), but did give 6.Kd6 an exclamation mark. Therefore they probably overlooked that the strange-looking move 6.Kc6 also wins (M. Campioli, EG149 vii2003), since the black rook cannot play to e5 after all: 6...Rg6+ 7.Sf6 Rxf6+ 8.Kd5 is the main line. What’s your opinion: cook or dual? Did the fact that the composers gave 6.Kd6 an exclamation mark influence your opinion?

CONCLUSION

Correctness checking of studies is difficult. Of my current database of 71,919 endgame studies, in 16,079 cases (22.4%) a study is claimed to be incorrect (cooked, dualistic). It doesn’t mean that in all instances the claim is justified, or that all the other studies are correct. In many cases, busts are pretty straightforward (especially if confirmed by EGTB), but it is not always easy to decide whether a white alternative is a dual or a cook. Some duals are obviously unimportant (e.g. most promotion duals, waste of time duals) but other duals are not. This is often subjective and may depend on the type of study, the presentation of the solution, the part of the solution in which it occurs, and whether multiple duals (of different types) are present in the study. Also alternatives claimed to be cooks might upon closer inspection turn out to be duals. This might be very complex, especially when deciding about a possible waste of time dual. Unfortunately, the currently available software for consulting EGTB’s more often confuses than clarifies.

Agenda

Next ARVES-meeting: Saturday, October 27th, 2007 at the Nieuwe Zurenborger, Dageraadsplaats, Antwerp, Belgium. Details ??????

Corus Endgame Study Composing Tourney

The organizing board of Corus Chess Tournament announces an international composing tourney for endgame studies.

No set theme.

Five money prizes will be awarded:

1\textsuperscript{st}: 750 Euros
2\textsuperscript{nd}: 500 Euros
3\textsuperscript{rd}: 250 Euros
4\textsuperscript{th}: 150 Euros
5\textsuperscript{th}: 100 Euros.

Book prizes are offered to the other studies in the final judge’s award. The award will be published in January 2008 towards the next edition of Corus Chess Tournament and will be sent to all participants.

Judge: Yochanan Afek

Entries (not more than three per composer) should be sent to the neutral judge Harold van der Heijden, Michel de Klerkstraat 28, 7425 DG Deventer, The Netherlands. E-mail: heijdenh@studieaccess.nl before November 1\textsuperscript{st}, 2007.