The Change Theme in a Study – Part I

By Eduard Eilazyan

An article with the same title was published in the magazine *Shakhmatnaya Kompozitsia* in 2008. This is a slightly revised and abridged version.

The main objective of this article is to define and describe several new themes in endgame study composition united by the common name **change**. In this article the classification of studies depending on the structure of the solution will be introduced, as well as the definition of some new terms and concepts. For greater clarity, the new themes and studies with complex solutions will be presented by formulas and structural schemes.

The term *change* is well known in chess problem composition. But as I never composed chess problems I am not familiar with the complex themes system of problem composition. So do not draw any parallel between the use of this term in the present article and the problem composition world.

1. Classification of studies based on the structure of the solution

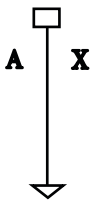
The selection of criteria is the first stage in the development of any classification system. The main criterion of classification should be objective and clear, but at the same time it must be closely linked to strategy and research.

Because the structure of the solution is the defining factor of any change theme, the selection criterion for the classification is obviously the structure of the solution. This classification, which reflects only the formal aspect of the content of the study, namely the structure of its solution, is not universal because it does not reflect the specific chess content.

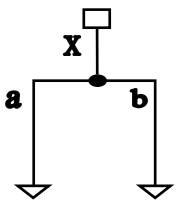
The structure of the solution of any study is defined by two basic elements: **branching** and a **try**. Every possible variety of solution of any endgame study is then defined by a combination of these two elements. The number of basic elements that are present in the solution of a study defines the structural **level** of the study and gives its classification.

Studies of the zero level – simple **linear** studies – do not contain branching or have a try in the solution. Studies of the first level contain either a single branch, or have one try.

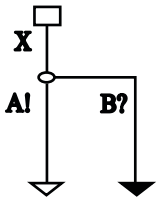
It is now possible to present visually the structure of the study's solution in the form of a **structural scheme** or by a corresponding **formula**.



Linear



Branching



Try

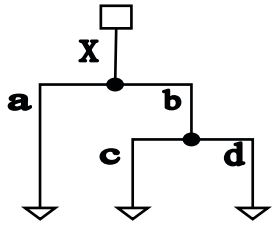
For the formulas, first we have to agree on their notation. We will use capital Latin characters for white moves and lowercase characters for black moves. We will mark the first move of a correct variant or continuation with an exclamation mark, and the first move of the try, the first move of wrong attempt or continuation by a question mark. Branching is indi-

cated by the symbol "∨" (or) and an alternative continuation is given between brackets.

Now the formulas of the studies with **simple structure types** of the solution can be represented as follows: linear A or X; with a branching X – a ∨ b or X – a(b); with a try X – A!(B?).

The addition of one basic element in endgame study solution structure of the first level gives 12 types of the structure of the second level, but among them, are only six nonequivalent types:

1. X – a ∨ (b – c ∨ d): two branches,
2. X – a ∨ (b – A!(B?)): a try in a branch,
3. X – A!(B? – C ∨ D): a branch in a try,
4. X – A!(B? – a!(b?)): a try in a try,
5. X – A!(B?) – a ∨ b: a try and a branch,
6. X – A!(B?) – C!(D?): two tries.



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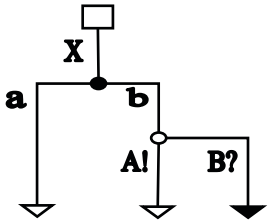

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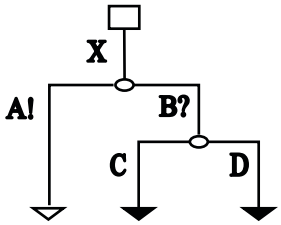

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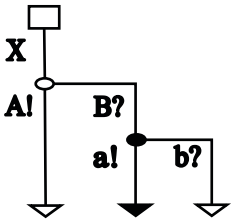

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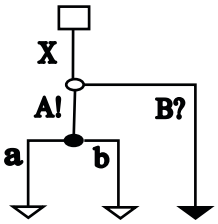

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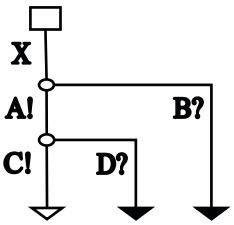

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For simplicity we only consider branching with two branches and we do not consider positions with two or more false continuations. The generalization of the theory for those cases is not extraordinary difficult.

As the **criterion** of classification we choose the type of the study's solution structure. We assume that studies with identical types of solution structures form a separate **class**. By induction we can obtain formulas and build structural schemes of all possible classes of studies of the third and higher levels. It is clear that with an increasing level the number of related classes is growing rapidly, and one needs discrete mathematics to establish the exact form of dependence between the number of structural classes N(L) and level number L. For small values of L we have N(0) = 1, N(1) = 2, N(2) = 6. The general case N(L) is expressed by the recurrent formula (we do not present its derivation):

$$N(L) = 3 \sum_{\substack{i+j=L-1 \\ i<j}} N(i)N(j) + \frac{1}{2} N(k)[3N(k) + 1]$$

Where k = (L - 1) / 2, and for half-integer values of k (for even L) let N(k) = 0. So the first 11 values of the numerical series N(L) are: 1, 2, 6, 25, 111, 540, 2736, 14396, 77649, 427608 and 2392866.

It is clear that any study belongs to one of the described classes above, and that these classes themselves form a clear **hierarchical system**. All studies can be classified by their solution structure using this system.

But we are interested in classes and subclasses, combining the thematic content of studies with the structure of their solutions. For example, logical studies are a subset of endgame studies, in which the solution structure has at least a single try. Many change themes discussed below and their various combinations can also provide separate study subclasses. The challenge is to describe the most interesting thematic classes and subclasses, combining them into groups based on relevant characteristics, and ultimately to build a coherent hierarchical **system of structurally-thematic classes** of studies. Of course, this is too much a task for one article.

2. Difference and Δ-factor

To explain the basic material of the article we need to introduce several new concepts. We start from the fact that any chess position is completely determined by its component pieces, the squares which they occupy and the moves (here and below we only consider legal positions).

Definition 1. **Elementary operation.** One of the following five actions lead to a change in the position: addition of a piece, removal of a piece, replacement of a piece, permutation of a piece, and a change of series of moves.

It is easy to understand that an inverse elementary operation also is elementary. Further it is obvious that by a finite number of elementary operations, we can obtain any given position.

Definition 2. A position arising from the given position by carrying out only a small number of elementary operations is called **similar.**

Because of the reversibility of each of the five elementary operations, the ratio of similarity is symmetrical (reciprocal). In the definition we do not impose any restriction on the number of elementary operations for the transition to a similar position, which makes the ratio of similarity quasi transitive.

Definition 3. A position arising from the given position by carrying out a single elementary operation is called **related.**

It is clear that the ratio of the relationship of positions is symmetrical (mutual), but not transitive. Related positions are also similar positions, but not the other way around.

Definition 4. The distinction between two related positions is called a **difference**.

We denote the difference with the symbol Δ: α, where α is the pair of mutually reversible elementary operations. For example, Δ: ±Ng2, Δ: Q-Ne8, Δ: Rc2-b3, Δ: WTM-BTM.

Definition 5. **Transformation** is the transition from a given position to a similar position.

All differences are associated with one of three main factors in chess: time, space and material. This allows us to introduce a classification of differences using these factors.

1. Distinction in the moves (time) – difference of 1st kind.

2. Distinction in the position of a single piece (space) – difference of 2nd kind.

3. Distinction in the presence of a single piece (material) – difference of 3rd kind.

4. Distinction in the type of pieces (quality of material) – difference of 4th kind.

The differences of 5th kind are associated with retro-effects (castling, en-passant, threefold repetition of position and 50 move rule) can be defined as a separate group, but we will not consider them here.

Definition 6. The difference which influences the assessment of a position is called **decisive**.

By the degree of influence on the outcome of a position the differences can be classified according to their importance.

Definition 7. The difference influencing the outcome of a concrete variant is named **significant**.

Note that here the evaluation of a position is understood in the sense of Zermelo. In contrast to the scale of the Shannon, on which evaluation functions in chess programming are based, the scale of Zermelo has only three categories: win, draw, or loss. The above definitions are not only meaningful in endgame study composition but also in the theory of chess.

For each difference a variety of changes of the characteristics of a position could result, such as line overlapping, pinning, blocking, control over a certain square, possibility of linear or double blow, covering a piece, mate threat, liquidation of "the fifth column", the loss or win of a tempo.

Definition 8. The change in certain characteristics of a position due to adifference is called the **Δ-factor** of this difference.

All the changes in characteristics of a position caused by the difference form a set of Δ-factors of the given difference.

Definition 9. **Critical** is the Δ-factor influencing the assessment of the position or a concrete line.

Particular interesting are cases in which different lines have various critical Δ-factors for the same difference.

Definition 10. The difference is **manageable** if White or Black can obtain either of the two related positions connected by this difference.

Notice that the concept of a difference is useful not only in endgame study theory but also in training practice. The analysis method using the concept of a difference can be applied effectively both to complex studies and to regular study of typical positions from various stages of a chess game.

3. Try Change (TC)

TC Theme. *A false continuation in one of the two similar positions of the study's solution is a correct continuation in the second position and the other way around.*

From this definition it follows that a study with **TC** has at least a secondary level.

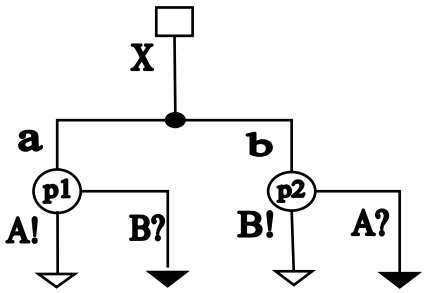
The **TC** Theme can be expressed in two basic forms: **parallel** when similar positions occur in different lines of the solution (3rd level), **consecutive** when two similar positions occur in a single branch of solution (2nd level).

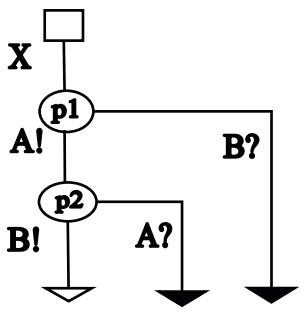
The formulas and structural schemas of the **TC** theme:

The parallel form: X – (a -> p1 – A!(B?)) ∨ (b -> p2 – B!(A?));

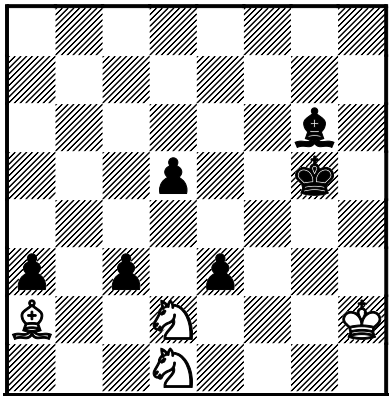
The consecutive form: X -> p1 – A!(B?) -> p2 – B!(A?).

Here p1 and p2 are similar positions.





E.1. Eduard Eilazyan
Springaren 2009



h2g5 0042.04 4/6 Draw

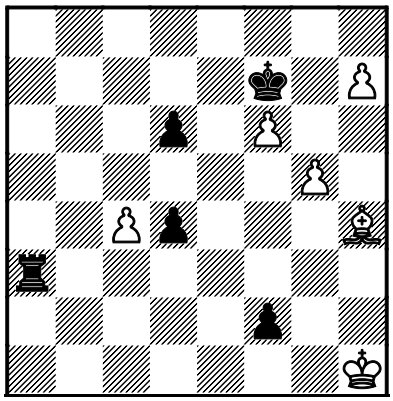
1.Sf3+ Kf4 2.Sd4 Ke4 (Not dangerous is 2…Ke5 3.Sc6+ Kd6 4.Sd4 c2 5.Sxc2 Bxc2 6.Sxe3 draw) **3.Sc2 d4 4.Bc4! a2 5.Bxa2! (Try:** 5.Sxc3+? dxc3 6.Kg2! hoping for 6…Ke5? 7.Sa1 Bb1 8.Kf1! Kd4 9.Bb3! Kd3 10.Ke1 positional draw. **But** 6…Bf7!! 7.Bxf7 Kd3! 8.Se1+ Ke2! 9.Sc2 Kd2! 10.Sd4 e2 (c2) 11.Bxa2 c2! 12.Sxc2 Kxc2 and wins) **Kd3! 6.Bb3 Bf7 7.Ba4** (Now Black has two choices. He can immediately play 7...Bh5, or can first force the wB to b3 by playing 7...Be8 8.Bb3 and then play 8...Bh5. These are two related positions with the difference Δ: Ba4-b3. We will now see how this affects the development of events).

A. 7...Bh5 8.Sdxe3! (**Thematic try:** 8.Sf2+? exf2 9.Kg2 Bd1! 10.Sxd4 Bxa4 and wins. For this variant the difference Δ: Ba4-b3 is significant, and the critical Δ-factor is that the bishop on a4 is not protected by a knight) **8...dxe3 9.Kg3!** (Bad is 9.Kg2? Bd1 10.Sxe3 Bxa4 11.Sd5 Bc6! with pinning of the knight. Not better is 9.Kg1? Kd2! 10.Kf1 Be2+! 11.Kg2 Bd1 12.Sxe3 Bxa4 and wins.) **9...Kd2** (On 9...Bd1 follows 10.Sxe3 Bxa4 11.Sd5! If the bishop was on b3 this move would have been impossible; this is the second critical Δ-factor of the difference Δ: Ba4-b3! 11...c2 12.Sb4+ Kc3 13.Sxc2 draw.) **10.Kf4!!** (But not 10.Bb3? Bd1 11.Sxe3 Bxb3 and wins) **10...Bd1** (Or 10...e2 11.Bb3 Bf7 12.Ba4 Bd5 13.Ke5 Bc6 14.Bb3 Bb5 15.Kf4! ... also a positional draw) **11.Sxe3 Bxa4 12.Sc4+** (This move would have been impossible with the bishop on b3, this is the third critical Δ-factor of the difference Δ: Ba4-b3!) **12…Kd3 13.Se5+ Kd4 14.Sf3+ Kd3 15.Se5+ Ke2 16.Sf3!** (A position of the mutual zugzwang!) **16...Kd3 17.Se5+ Kd2 18.Sc4+!** (A mistake is 18.Sf3+? Ke2!, because the mutual zugzwang now is on White's foot! 19.Sd4+ Kd3! and Black wins) **18...Kc1 19.Se3! Kd2 20.Sc4+** positional draw.

B. 7...Be8 8.Bb3 Bh5 9.Sf2+! (And here, on the contrary, continuation 9.Sdxe3? is a try. **The change of the try in variants A – B. The thematic try:** 9.Sdxe3? dxe3 10.Kg3 Bd1! 11.Sxe3 Bxb3 and wins, because the square d5 not available to knight (the critical Δ-factor of the difference Δ: Ba4-b3!). **9...exf2 10.Kg2 Bd1 11.Sxd4 Bxb3 (**Now wBb3 is protected by the knight, this critical Δ-factor essentially influences on estimation of the line) **12.Sxb3 Ke2 13.Sd4+ Ke3 14.Sb3 Ke2 15.Sd4+ Kd3 16.Sb3 ...** positional draw.

In this study the change theme of the try was realized in a parallel form. Two equivalent variants organically connected by a change of the tries finishes with two homogeneous endings.

E.2. Eduard Eilazyan
2nd prize *Shakhmatnya Kompzitisia* 2006



h1f7 0310.43 6/5 Win

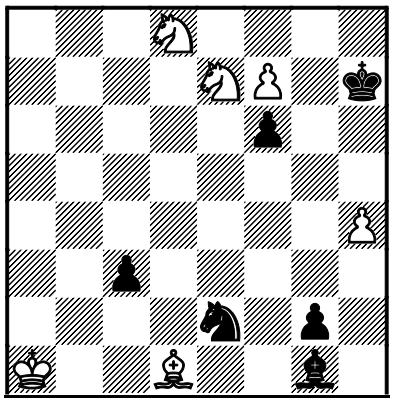
1.h8S+! Kg8 2.f7+ Kf8! 3.Kg2 Rh3 4.Kxf2 (4.g6? Rxh4 5.g7+ Kxg7 6.f8Q+ Kxf8 7.Sg6+ Ke8 8.Sxh4 Kd7 9.Sf3 d5 draw) **4...Rh2+** (4...Kg7 5.Kg2 and White wins. Details are at the end of the solution. 4...d3 5.Ke1 Kg7 6.Kd2! wins, or 5…Rh2 6.Bg3! Rxh8 7.g6 wins, but not 6.Kd1? Kg7! and White is in zugzwang) **5.Ke1 Rh1+ 6.Kd2 Rh2+**

7.Kd1! (**Try No. 1***:* 7.Kd3? Kg7!, ZZ1. This s a difference of the 1st kind Δ: WTM-BTM. White has no useful moves, and how he wins BTM is demonstrated in the main line. If after 7.Kd1! Black would play 7...Kg7, then after 8.Ke1 d3 9.Kd1 occurs ZZ2. With WTM this is a draw: a) 9.Be1 Rh1 10.Sg6 Kxf7 11.Sh4 Rg1 12.g6+ Ke6 13.Kd2 Rg4 14.Kxd3 Kd7, or b) 9.c5 dxc5 10.Bg3 Rxh8 11.Be5+ Kxf7 12.Bxh8 Kg6 13.Bf6 c4 14.Kd2 Kf5, or c) 9.Ke1 Re2+ 10.Kf1 Rh2 11.Ke1 Re2+ 12.Kd1 Rh2 13.Kc1 Rc2+ 14.Kd1 Rh2, all positional draws. With BTM, Black loses: 9...Rh1+ 10.Kd2 Rh3 11.Kc3 Kf8 12.g6 Rxh4 13.g7+ Kxg7 14.f8Q+ Kxf8 15.Sg6+ K- 16.Sxh4 wins. Try: 7.Kc1? Kg7! 8.Kd1 d3, ZZ2) **7...Rh1+ 8.Kc2 Rh2+ 9.Kb3** (Black is in zugzwang. 9...Rh3+ 10.Kb4 Kg7 11.Bf2, or 10...Rh2 11.Bg3 wins, 9...Rh1 10.g6 Rxh4 11.g7+ Kxg7 12.f8Q+ Kxf8 13.Sg6+ and 14.Sxh4 ... wins) **9...Kg7 10.Ka3** (After 10.Ka4 Ra2+ the wK has to return to 11.Kb3, otherwise Black will draw: 11.Kb4? Ra8! 12.g6 Rxh8 13.Be7 Rb8+ 14.Ka4 d3 15.f8Q+ Rxf8 16.Bxf8+ Kxf8 draw. Also 10.Kb4 is a waste of time: 10...Rb2+ 11.Ka3 Rh2 12.Kb3 Rh3+ 13.Kc2 Rh2+) **10...Rh3+ 11.Kb2 Rh1 12.Kc2 Rh2+ 13.Kd3!** (ZZ1, BTM. **Try No. 2**: 13.Kd1? d3! ZZ2, WTM) **13...Rh3+ 14.Ke2 Rh2+ 15.Ke1!** (Not 15.Kf1? because of 15...d3 16.Ke1 Re2+ draw) **15...Rh1+ 16.Kf2 Rh3 17.Kg2** (This position could have happened earlier (see the note at Black's 4th move) **17...d3 18.Kxh3 d2 19.g6 d1Q 20.Bf6+ Kf8 21.g7.** Model mate.

In this study the change theme of the try in consecutive form is realized. As constructive elements for the theme realization two original positions of mutual zugzwang are used.

(E.3.) I. 1...Kg7 (The natural continuation 2.Sf5+? – is the **first thematic try.** 2...Kf8 3.Se6+ Kxf7 4.Bb3 c2! Only this move leads to the goal. It is impossible to play 4...Kg6? because of 5.Sg3! – the main diagonal is closed and there is no check 5...Bd4+ - 5...Sxg3 6.Sf4+ Kh6 7.Sxg2 Sf5 8.Kb1 Sd4 9.Bd1 Bf2 10.h5 Kg5 11.Sf4 Be1 12.Sd3 Bd2 13.Sb4 f5 14.Sc2 Sc6 15.Bf3 Se5 16.Be2 Sg4 17.Sd4 Be3 18.Sb5 draw. An incorrect continuation is 5.Bc2? Kh5! 6.Sg3+ Nxg3 7.sf4+ Kg4! – see the end of the study! 8.Sxg2 Kf3 9.Se1+ Ke2 10.Sd3 Kd2 11.Kb1 Se2 12.h5 Be3 13.h6! Bxh6 14.Sf2 Bg5 15.Se4+ Ke3 16.Sd6 Sd4 17.Sc4+ Ke2 18.Sd6 Sxc2 19.Kxc2 Bf4 wins. 5.Sf4+ Ke8 (Kf8) 6.Sxe2 Bd4+ 7.Sfxd4 g1Q+! 8.Sxg1 c1Q+ 9.Ka2 Qxg1 Black wins. The draw is only reached by a quiet move of the pawn) **2.h5!** with the threat 3.h6+. **2...Be3! 3.Sf5+ Kf8** (Here White changes the game plan) **4.Sh4! g1Q 5.Sg6+!** (Forcing the sacrifice of the newborn queen) **5...Qxg6 6.hxg6 Sd4 7.Kb1** draw. So Black carries out a preliminary plan (logic manoeuvre) to open the first rank.

E.3. Eduard Eilazyan
The Problemist 2009



a1h7 0045.23 6/6 BTM, Draw

II. 1...c2! 2.Bxc2+ Kg7 (Now the plan with the move 3.h5? doesn't work (the **second thematic try**) in view of 3...Be3! (3...Bd4+? 4.Ka2 Sf4 5.h6+ Kf8 6.Sg6+ Sxg6 7.Bxg6 g1Q 8.Se6+ Ke7 9.f8Q+ Kxe6) 4.Sf5+ Kf8 5.Sh4 g1Q+ check!, after which the win is easy. But the logic manoeuvre carried out on the first move also has negative consequences for Black!) **3.Sf5+! Kf8 4.Se6+ Kxf7 5.Bb3 Ke8** (There is no black pawn at c3 and Black does not have the move 5...c2) **6.Ba4+ Kf7 7.Bb3 Kg6 8.Bc2!** (8.Sg3? Bd4+! With the sacrifice of the pawn on the first move Black has not only opened the first horizontal but also the main diagonal! These are two critical - factors of difference Δ: ± p.c3. 8.h5+? Kxf5!, but not 8...Kh7? 9.Sf8+! Kh8 10.Sg6+ Kh7 11.Sf8+ with perpetual check) **8...Kh5** (**The**

try is 9.Bd1? in anticipation of 9...Bd4+? 10.Ka2! Be5! (10...g1Q? 11.Bxe2+ Kg6 12.Sexd4) 11.Sf8! g1Q 12.Bxe2+ – again forcing the sacrifice of the newborn queen! – 12...Qg4 13.Bxg4+ draw. **But** 9...Bh2! 10.Bxe2+ Kg6 11.h5+ Kh7 (Kf7) and Black wins, but not 11...Kxf5? 12.Sd4+! Ke5 13.Sf3+ draws) **9.Sg3+! Sxg3 10.Sf4+ Kg4 11.Sxg2** and draw, because Black does not have the pawn c3, which has been sacrificed on the first move! This is the third critical - factor of the difference Δ: ± p.c3.

The theme of change of the try appears here twice:

2.h5! (2.Sf5+?) – **3.Sf5+! (**3.h5?); 5.Sg3! (5.Bc2?) – **8.Bc2!** (8.Sg3?).

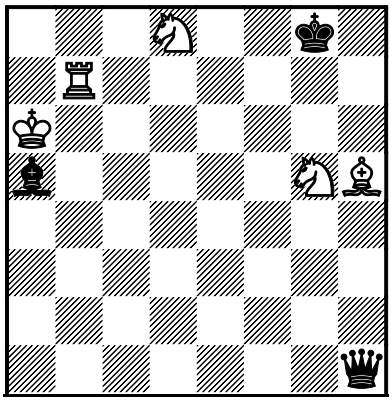
4. Change of solution (CS)

CS Theme. *The correct continuation in one of two similar positions of the solution in a study is a try in the second position.*

As you can see from this definition, unlike the TC study theme, only one thematic try appears here. A difference or transformation can be managed by Black, both in the form of carrying out a logical manoeuvre and in the alternative form.

Formulas of the CS theme: X – (a – A) ∨ (b – B!(A?)), X – a – A – b – B!(A?), X – a – A!(B?) – b – B.

E.4. Eduard Eilazyan
Magyar Sakkvilág 2009



a6g8 3142.00 5/3 Win

1.Sde6! Qa1! (Only protection for the two threats) **2.Rb8+! Bd8+ 3.Kb7** Black now has to choose between 3...Qb2+ and 3...Qb1+. Two main lines:

A. 3...Qb2+ 4.Kc8 Qh2! (Worse is 4...Qe5 5.Bf7+ Kh8 6.Rb3! and wins, or 4...Qd2 5.Bf7+ Kh8 6.Bg6 Kg8 7.Se4 Qa2 8.Sxd8 Qa6+ 9.Kd7 Qxg6 10.Se6+ Kf7 11.Rf8 mate) **5.Bf7+!** (But not 5.Rb7? Bxg5 6.Rg7+ Kh8 7.Rxg5 Qd6, and White cannot win) **5...Kh8 6.Sxd8 Qc2+ 7.Kd7 Qd2+ 8.Ke8 Qxg5** (Now Black has restored the material balance, but now follows a final attack) **9.Se6! Qa5 10.Ke7+! Kh7 11.Rb3!** (threatening 12.Rh3+) **11...Qa7+ 12.Kf8! Qa8+ 13.Be8!** and wins, because Black does not have a satisfactory defence against the threat 14.Rh3+. This mating threat leads to winning of the queen: 13...Qg2 14.Rh3+ Qxh3 15.Sg5+ Kh6 16.Sxh3 and wins.

B. 3...Qb1+ 4.Kc8 Qd3 (We now almost have the same position as in line **A** after Black's 4th move. The difference is Δ: Qh2-d3. i.e. only the position of the queen. This difference is significant, because here continuation 5.Bf7+? Kh8 6.Sxd8 Qc2+? 7.Kd7 Qd2+ 8.Ke8 Qxg5 9.Se6! and wins as in the main line **A**) is the **thematic try.** However, the **refutation** is: 6...Qc3+! 7.Kd7 Qd4+! 8.Ke8 Qe5+! 9.Sge6 Qxb8 drawing. But thanks to this difference Δ: Qh2-d3 White has a new possibility!) **5.Bg6! (The change of solution** in lines **A** and **B**. A mistake would be 5.Bf7+? Kh8 6.Bg6 because of 6...Qxg6 7.Kxd8 Qg8+ 8.Kc7 Qxb8+ 9.Kxb8 and draw) **5...Qa6+!** (Of course not 5...Qxg6? 6.Kxd8 with an inevitable mate) **6.Kxd8 Qd6+ 7.Kc8 Qc6+ 8.Sc7 Qxg6** (Black has won material back, but now a final combination follows which wins the queen) **9.Kd7+ Kg7 10.Sce6+ Kf6 11.Rf8+ Ke5 12.Sf3+** (12.Sf7+? Kf5 13.Sd6+ Kg4 draws) **12...Ke4** (Avoiding the fork 12...Kd5 13.Sf4+) **13.Sd2+ Ke3 (Ke5) (**Again avoiding the fork 13...Kd3 14.Sf4+) **14.Sc4+ Ke4 15.Rf4+ Kd3** (Or 15...Kd5 16.Rd4 mate) **16.Se5+ Ke3 17.Sxg6** and wins**.**

Black avoided a mate by the expense of the queen.

5. Refutation Change (RC)

RC Theme. *The valid refutation of a try in one of two similar positions is a false refutation in the second position of the same or the other try and the other way around.*

The RC theme can be expressed in three basic forms.

Consecutive form, when tries with similar positions are on one branch of the solution (4th level), and two **parallel** forms:

a) The similar positions are on branches of same try (4th level).

b) The tries containing similar positions are on the different branches of solution (5th level).

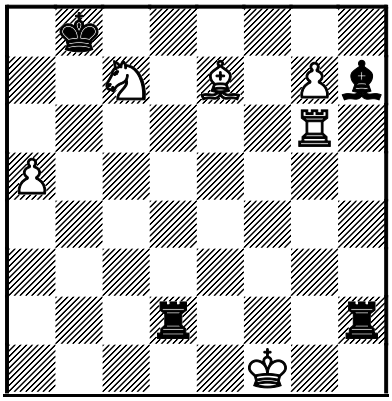
The formulas of the RC theme:

Consecutive form: x – A!(B? – a!(b?)) – C!(D? – b!(a?))

Parallel form a: x – A!(B? – (C – a!(b?)) ∨ (D – b!(a?)))

Parallel form b: X – (x – A!(B? – a!(b?))) ∨ (y – C!(D? – b!(a?)))

E.5. Eduard Eilazyan
1st prize All-Union Chess Problems and Studies – 80 AT 2006



f1b8 0741.20 6/4 Draw

The first thematic try: 1.Sa6+? in anticipation of 1...Kb7(?) 2.Sc5+ Kc7 3.Bd6+ Rxd6 4.Sa6+ Kc6 5.g8Q! Bxg8 6.Sb4+! Kd7 7.Rg7+ Ke6 8.Rg6+ Ke5 (Ke7; Sc6+) 9.Sc6+ Kd5 10.Sb4+ Kc5 11.Sa6+ Kc6 12.Sb4+ Kc7 13.Sa6+ Kd7 14.Sb8+ Ke7 15.Sc6+ thematic positional draw – the first variation. **Refutation:** 1...Ka7! 2.Bc5+ Kb7 3.Rb6+ Kc8 4.Rc6+ Kd7 5.Sb8+ Ke8 6.Rc8+ Kf7 7.Rf8+ Kxg7 8.Rf2. White has defended himself against mate, but the initiative passed to Black. After 8…Rh1+ 9.Kg2 Be4+ 10.Kg3 Rd3+ 11.Kf4 Ba8! White cannot escape, e.g. 12.Bb6 Kg6! 13.Kg4 Bd5 14.Rb2 Bf3+ 15.Kg3 Be4+ 16.Kg4 Bf5+ 17.Kf4 Rh4+ 18.Ke5 Re4 mate. White carries out the first logical manoeuvre (transformation of position) to neutralize the refutation of the first try.

1.Kg1! Rhe2 (**Second thematic try:** 2.Sa6+? in anticipation of 2...Ka7?. As a result of this small transformation of the position there is a graceful defence against the refutation of the first thematic try: 3.Bc5+ Kb7 4.Bf2! Rxf2 5.Sc5+ Ka7 6.Se4! Bxg6 7.Sxd2! draw. **Refutation:** 2...Kb7! 3.Sc5+ Kc7. With the king on g1 White has no defence: 4.Bd6+ Rxd6 5.Sa6+ Kc6 6.g8Q because of 6...Rxg6 + check – a consequence of the transformation! Therefore, White plays 4.Kf1, hoping after 4...Rh2? 5.Bd6+ to escape with positional draws. But 4…Bxg6! 5.g8Q Rf2+ 6.Kg1 Rg2+ 7.Kh1 Rh2+ 8.Kg1 Rdg2+ 9.Kf1 Bd3+ 10.Sxd3 Rxg8 and Black wins. Thus, the second thematic try 2.Sa6+? it is refuted by the move 2...Kb7!, while the first one (1.Sa6+?) was refuted by the move 1...Ka7! Here the RC theme of two thematic tries is realized) **2.g8Q+!** (The second logical manoeuvre – preliminary sacrifice of the pawn for the purpose of unblocking the square g7 for the Rook) **2…Bxg8 3.Sa6+ Kb7** (The continuation 3…Ka7 also leads to a draw. The rest is simple) **4.Sc5+ Kc7 5.Bd6+ Rxd6 6.Sa6+ Kc6 7.Sb4+! Kd7 8.Rg7+ Ke6** (8…Kd8 9.Rxg8+ Kd7 10.Rg7+! Ke8 11.Rg2 draws) **9.Rg6+ Ke5** (Ke7; Sc6+) **10.Sc6+ Kd5 11.Sb4+ Kc5 12.Sa6+ Kc6 13.Sb4+ Kc7 14.Sa6+ Kd7 15.Sb8+ Ke7 16.Sc6+** thematic positional draw – the second variation.

In this study two thematic tries are connected by **refutation change**, and in the actual solution the purpose is accomplised by carrying out of two logical manoeuvres – transformation and a pawn sacrifice.

Dynamic positional draw with a rotation of the bK round the rook on a closed route in two

directions is realized in two variations – in the try and in the solution.

(To be continued)

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Announcement

International thematic tourney

"Change Theme"

For this tourney studies are requested to show one of the change themes in articles by E. Eilazyan "The Change Theme in a Study" and «Тема перемены в этюде » (*Shakhmatnaya Kompozitsia* № 82, № 83, 2008, № 93, 2010).

Judge
Eduard Eilazyan

Please send original studies by e-mail: *eil.peremen@mail.ru*
Closing date: 19 February 2011.

Total prize fund: 600 USD.

The tourney award will be published in the magazine *Shakhmatnaya Kompozitsia* and sent to all participants at their e-mail addresses during 2011.