## Reciprocal Stipulations

Torsten Linß’s 1611 in JF showed a stipulation which was apparently new and which he called a "Reciprocal Helpselfmate" (Reci-hs\#). Indeed, Julia had commented "something to be considered in the FCCP?"!

This particular stipulation called for W and B to play in cooperation and reach a position where W can both \#1 and s\#1. Our classification included the related "Reciprocal Helpmate" (Reci-h\#), in which W and B play in cooperation to reach a position where B can both \#1 and h\#1.

Dmitri and I had some discussions about Torsten's problem, which can be seen in the comments. My initial strict interpretation of a HelpSelfmate analogue of the Reciprocal Helpmate called for a goal where W and B play in cooperation to reach a position where B can both s\#1 and hs\#1. Dmitri refined this: "What you probably meant was that the black has option both s\#1 halfduplex (BW\# - two halfmoves) and hs\#1.5 (BWB\# - three halfmoves) - that indeed would be a full analogy to reci-h\#." It was now obvious that this "strictly analogous" interpretation was hopelessly unwieldy and Torsten's "straight forward synthesis" was the correct one!

I was intrigued enough to explore other combinations of this type of stipulation with double goals: with cooperation or opposition play, \#1/s\#1/h\#1/r\#1/semi-r\#1, final option for B or W. It soon became clear that most of these were either duplicates or impossible. You can't have a $\# 1 / \mathrm{r} \# 1$ combination - because if a \#1 was possible, then a r\#1 was impossible. Combining a $\mathrm{h} \# 1$ with $\mathrm{s} \# 1 / \mathrm{r} \# 1 /$ semi-r\#1 was also not useful as the $\mathrm{h} \# 1$ could always repeat the move of the $\mathrm{s} \# 1 / \mathrm{r} \# 1 /$ semi-r\#1. Variations with W or B having the final option would only be duplicates and could be converted back to the "normal form" by reversing the piece colours and turning the board by $180^{\circ}$.

So I finally arrived at the following 4 types:
1 W and B play in cooperation to reach a position where B can both \#1 and h\#1.
Name: Reciprocal Helpmate (Reci-h\#).
2 W and B play in cooperation to reach a position where W can both \#1 and s\#1. Name: Reciprocal HelpSelfmate (Reci-hs\#), as christened by Torsten!
3 W and B play in opposition to reach a position where W can both \#1 and s\#1. Name: Reciprocal Selfmate (Reci-s\#1) - my suggestion.
4 W and B play in opposition to reach a position where W can both \#1 and Semi-r\#1.
Name: Reciprocal SemiReflexmate (Reci-1/2r\#1) - my suggestion. This last is equivalent to a \#1/h\#1 combo by W. The term Semi-r\#1 being used to avoid the convoluted "Opposition analogue of Reciprocal Helpmate with W having the final option"!

I then reached out to Torsten and Christian Poisson to ask them if they were aware of any earlier examples. I thank them both for their prompt replies!

Torsten pointed me to PDB, where indeed many examples of the Reci-h\# and Reci-s\# exist (Search string: K='grazer'). Both these have also been known as "Grazer h\#" and "Grazer s\#", after the Austrian city.

Christian said that other than the Reci-h\#, these types were under the "Autres" stipulations category in WinChloe. From here, I found examples for the remaining Reci-1/2r\# type. Also, for some reason, the Reci-h\# stipulation appears under the diagrams in WinChloe as hr\#.

To summarise, our list of Reciprocal types are:
1 Reciprocal (Grazer) Helpmate (Reci-h\#). Help Play - \#1 \& h\#1 by B.
2 Reciprocal HelpSelfmate (Reci-hs\#). Help Play - \#1 \& s\#1 by W.
3 Reciprocal (Grazer) Selfmate (Reci-s\#). Direct Play - \#1 \& s\#1 by W.
4 Reciprocal SemiReflexmate (Reci-1/2r\#). Direct Play - \#1 \& semi-r\#1(or h\#1) by W.
The Reci-h\# ( $\mathbf{1}$ above) looks out of place as it is the only one with B having the final option instead of W. However, it has been developed earlier and has become more common. The analogous "Help Play - \#1 and $\mathrm{h} \# 1$ by W " which would fit more naturally into the above group would have to be called as "Reci-h\# by W", if anyone composed such an example. As mentioned earlier, all existing Reci-h\# problems could be converted into this form by reversing the piece colours and turning the board by $180^{\circ}$ (See example 1a).

Examples for each type follow. $\mathbf{1}$ shows an economical AUW. 1a is the colour reversed equivalent version referred to above.

2 has intensive Interplay and ODT. There is also an interesting change in the way all the 8 BK flights are guarded or blocked between a) and b), with a $4 \times 2$ cycle and two $2 x 2$ interchanges. See the table:

|  | f4 | e5 | g6 | e6 | g5 | f6 | e4 | g4 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| a) | BP | WR | eS | WB | WR | hS | BR | WB |
| b) | WR | eS | WB | BP | hS | WR | WB | BR |

3 seems to be the earliest example of a Reci-s\#. 4 is an early example of the Reci-1/2r\#. $\mathbf{5}$ is a later example, showing a remarkable cycle of W threats and continuations. The stipulation could have been Reci-s\#2, but after 1...cxb5 2.Se6+, B can reply with 2...fxe6! Finally, 6 is an earlier published example of a Reci-hs\# by Torsten, showing two long solutions and under promotion.

Currently, WinChloe supports only the Reci-h\# (Aide Reciproque) stipulation. Popeye can handle the Reci-h\# and apparently the other types also by using the "Structured Stipulation" option.

Going forward, we can replace mate by stalemate and indeed examples already exist. And instead of the double goals being homogeneous, we can have exotic combinations like =/\#. There is also the charmingly named stipulation called "Quodlibet", in which the alternate goals occur separately in variations. This is unlike the case here, where they occur in a single variation. Thanks to Thomas Maeder for explaining this difference. These additional variants will be covered in another article!

I hope more composers will be inspired to try their hand at these stipulations!

1 Christian Poisson
Problemkiste 1991


Reci-h\#2
(3+5) C+
1.c1=R a8=B 2.Rc7e8=Q\#, 2.e1=S\#

1a Christian Poisson (Version)
Problemkiste 1991

1.f8=R h1=B 2.Rf2 d1=Q\#, 2.d8=S\#

2 Markus Manhart and Franz Pach 3rd Prize The Problemist 1995

b) $\mathbf{f} 4-\mathrm{e} 6$
a) 1.Rh6 Bxc4 2.Rd6 Ra5 3.Sf6 Bb5 4.Sg6 Bd7\#, 4.Rd3\#
b) 1.Bh6 Rxc4 2.Be3 Bb1 3.Sg5 Rc2 4.Rg4 Rf2\#, 4.Bc5\#

3 Hieronymus Fischer
Deutsche Schachblätter 1921

1.c4! f5 2.c5 f4 3.c6 f3 4.Qb7\#, 4.Qc7 f2\#

4 Theodor Steudel
Problemkiste 1995


Reci-1⁄2r\#3
1.Bc3! Ka1 2.Kc2 Ka2 3.Qa4\#, 3.Qd2 b1=Q\#

5 Manfred Rittirsch
Prize Rhineland-Palatinate Federation
Tourney 1996-1997

1.Qd8! [2.R $\times$ f5\# A, 2.Qd5+ B c×d5\#]
1...c×b5 2.Qd5\# B, 2.Se6+ C R×e6\#
1...f $\times \mathrm{g} 6$ 2.Se6\# C, $2 . \mathrm{R} \times f 5+$ A $\mathrm{g} \times \mathrm{f} 5 \#$

6 Torsten Linß
feenschach 2020


1. ... Bc3 2. Rb8 Ka2 3. Re8 Kb3 4. Ke6 Kc4 5. g8=B Bh8 6. Ke7+ Kd4 7. Qg4+ Ke5 8. Kf8+ Kf6 9. Re6\#, 9. Qh5 Bg7\#
2. ... Bc5 2. Ra2+ Kb1 3. Ra5 Kc2 4. Qc7 Kd3
3. Kg6 Ke4 6. Kh7 Kf5 7. Kh8 Kg6 8. g8=S Bf8 9. Qh7\#, 9. Qg7+ Bxg7\#
