

Karsten Müller

Magnus Carlsen

The Chess DNA

of a Genius



JBV Chess Books

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Magnus Carlsen, World Champion 2013–2023

Preface

Given that there is already so much literature about the 16th World Champion, the question arises as to why I have added yet another book. The reason is that I was inspired by the idea of looking at Magnus Carlsen's strategic play from the perspective of the '4 types of players' model, emphasizing not only his outstanding strengths but also his universality.

Since Magnus Carlsen's games are always extremely instructive and since I have also worked out numerous useful rules of thumb on all subjects, the reader is free to use the book simply as a strategy textbook. However, what really counts in chess is not so much knowing a multitude of rules by heart, but rather sharpening your intuition and developing a sense of when a rule can simply be applied – and when you're dealing with the occasional exception. And since Magnus Carlsen's abilities can rightly be called ingenious in this respect, the reader has the opportunity to learn a lot from the world champion himself.

I would like to thank Harald Fietz for all kinds of analyses, texts and ideas, Frederic Friedel and Rainer Woisin from ChessBase for the idea of working with the QR Codes, and Robert Ullrich and Thomas Beyer for the very good layout and the usual first-class presentation.

GM Dr. Karsten Müller
Hamburg, August 2023

The model of the ‘4 types of players’

Our representation of the ‘player types’ is based in principle on the classification that Lars Bo Hansen makes in his excellent book *Foundations of Chess Strategy* (GAMBIT 2005), in which the author takes – to put it simply – a model from economic theory (which deals with questions of human typology under the umbrella term ‘human resources’) and transfers it to chess players, or in other words, limits it to this special group of people.

Of course, this model is not the only possible one and of course, the so-called ‘stereotyped thinking’ generally brings with it all sorts of dangers. However, since I have presented this model at many seminars and training events and was amazed how well it fit, the idea for this book came up at some point.

The goal, of course, should be to become as universal as possible. You usually win with your strengths, but it makes sense to also work on the weaknesses and include the specific strengths and weaknesses of the respective opponent in the decision-making process. In positions where there is only one move, every good player should find it of course. So the different styles of play are especially important in positions where there is a wide range of possibilities. However, also in the kind of positions that you should strive for based on your own style and that of the opponent. Furthermore, you can of course ‘imitate’ a style, and against certain opponents this can even be the right strategy. For example, activists and especially hyperactivists have certain extremely outstanding characteristics, and if an opponent can adapt well to them, it’s very valuable. An example is Kramnik’s victory in the World Championship match in London 2000 against the activist Kasparov. Kramnik managed to always steer the game in the desired direction, so that Kasparov didn’t even get an opportunity to show what he is able to do in positions with attack and initiative.

And even if you are skeptical about the model itself, the examples and exercises should definitely provide good training material on the various topics.

Activists

Activists among world champions: Alekhine, Tal, Spasski, Kasparov, Anand

Activists among other renowned players: Shirov, Morozevich, Topalov, Pillsbury, Anderssen, Bronstein, Larsen, Taimanov, Aronian, Judit Polgar, Karsten Müller

Hyperactivists: Tal, Neshmetdinov

Their strengths

Activists rate initiative and attacking options relatively high and material values lower. This is particularly pronounced among hyperactivists who are often ready to make considerable sacrifices in order to get attacking chances. Typical of this is Tal's famous quote, 'There are correct sacrifices – and mine.' They often have a good sense for initiative and dynamics and are also ready to accept static weaknesses. This can of course be disadvantageous, but often provides good entertainment on the board. One of their usual strengths is the concrete calculation of lines based on intuitive evaluation.

Their weaknesses

Sometimes they make pawn moves that look good at the moment, but do far more harm than good in the long run. They tend to overestimate their own attack on the king while underestimating the opponent's attack. They are significantly less good in defense and often bring intuitive sacrifices that are objectively incorrect.

Sometimes they don't have a good time management and often find themselves in time trouble because they search for too long for something that doesn't exist, especially when their intuitive assessment of the position doesn't correspond to the objective evaluation. Since they are often good at blitz and rapid, they can live with this weakness, but of course it's not really beneficial. As a result, activists often become more pragmatic over time, which can be seen, for example, in the careers of the world champions Tal and Kasparov.

Therefore, Lars Bo Hansen classifies the world champions Alekhine, Spasski and Kasparov as pragmatics, which of course is okay. However, since so many of Kasparov's game examples fit so well in this chapter, it was easy for us to at least classify *him* as an activist. However, the transition of the styles is fluid and even Michail Tal could be placed among the pragmatics from around 1966.

Their willingness to take risks

They often take risks and as a rule try to keep the 3rd result (meaning: their own victory) in the game. Therefore, especially with hyperactivists, long series of games without any draw can occur. Under certain circumstances, however, this can be a

disadvantage. For example, this phenomenon explains the two legendary 6–0 defeats of Taimanov and Larsen against Fischer in 1971. Both of them simply continued to play for win, instead of switching to damage limitation and striving for a consolidating draw.

Their training options

In addition to trusting one's own strengths by working on the openings and solving tactical exercises, the goal of becoming more pragmatic and universal also comes into question. Also, studying the games of reflectors can be advantageous. Kasparov, for example, has benefited enormously from his world championship matches against Karpov. Or you can study games from Tal's later period (i.e. from his 'year of change' 1966) or those from Kasparov's later career. By doing so, you can understand how these players have managed to become universal and pragmatic without completely losing the fire of their youth.

Their opponents

When activists meet over the board, it often leads to spectacular duels that do not always end as the Elo ratings suggest. Strong reflectors are particularly dangerous opponents for activists, as was shown, for example, in the world championship match 'Carlsen – Anand' and in the first world championship match 'Karpov – Kasparov'. The reason is that in such a constellation, the strengths of the activists don't come into their own, because the reflectors know how to prevent it with their good sense of active prophylaxis.

Their openings

Activists often advance the theory of special lines. For example, Kasparov's 'Chess-Base file' with its many spectacular novelties and new assessments was particularly legendary in this regard.

Typical openings

With White, activists prefer 1.e4, sharp lines of the open Sicilian, the King's Gambit and the Evans Gambit.

With Black, they tend to play the Najdorf Variation and the King's Indian.

Theorists

Theorists among world champions: Steinitz, Botvinnik, Kramnik

Theorists among other renowned players: Siegbert Tarrasch, Aron Nimzowitsch ('My System'), Peter Leko, Anish Giri, Georg Meier, Ulf Andersson, Nikola Sedlak, Sergey Tiviakov, Ruslan Ponomarev, Hans Berliner, Matthias Wahls, Victor Moskalenko, Mark Dvoretsky, Josif Dorfman ('The Chess Method'), Alexander Bangiev ('Strategy of squares'), Lars Bo Hansen

Their characteristics

On the one hand, you can see chess as a concrete game and always focus on calculating lines. But on the other hand, you can develop a general theory. Such a theory can be *very* general, such as the one that states you should always maximize the number of your own move options – or it can be tailored more specifically to specific structures. By the way, one of the secrets of why chess is so fascinating could be that all general theories have one thing in common: they are ultimately not entirely convincing.

In fact, otherwise things would be too simple and chess would only be a part of mathematics. Only in certain theoretical endgames are there rules of thumb that are equivalent to mathematical laws. In all other areas there are exceptions – and sometimes even far more exceptions than rule-abiding cases! Accordingly, the real art is not learning the rules of thumb by heart, but rather training your intuition in view of exceptions.

We want to continue with special theories on such structures and other positional issues and we do understand the type of player 'theorist' in exactly this sense. As a rule, these structures or positional issues are determined in the opening and also determine at least the early middle game. Sometimes, however, their effect can even extend into the endgame – such as e.g. in the French Defense, in the Benko Gambit or in certain Sicilian lines.

Their strengths

Theorists are extremely familiar with their structures and all the associated maneuvers and plans and can also rely on their sharpened intuition when using them. Theorists are incredibly strong in their pet structures and their opening systems are very stable and can be used in the long run. Their logical and systematic play is clearly pointed out, for example, in Botvinnik's comments on his games. Many representatives of this type are good at theoretical endgames and know the entire relevant endgame theory by heart.

Their weaknesses

They stick to their principles, even if they sometimes don't fit the position, and then often get into time trouble. They are somewhat inflexible and even stay true to their openings if they don't achieve any good results. And, of course, their respective specific theories may also have weak points of their own. What we have in mind are strong theorists who have very plausible theories, at least in their area of validity and application. However, some theorists sometimes lack a sense of the limits of the respective area of application and also the flexibility required to switch to other approaches in a specific position if necessary.

How do theorists play against the other types of players?

Of course, they always try to get into 'their' positions using 'their' openings. However, if necessary, they are also able to adapt and tailor strategies to the opponent if they can make a suitably fitting image. And this is how theories come into play – such as for example the one that against attacking players the dynamic potential should be reduced as much as possible, which Kramnik was able to implement in such an exemplary way in the world championship match against Kasparov.

How to play *against* theorists?

One should try to take advantage of their sometimes lack of flexibility and get them out of 'their' position. Occasionally it can happen that they recently scored 0 out of 5 with this or that opening – and that they will still keep playing it. Such a thing would be highly unlikely for all other types of players, but against some theorists it can be worthwhile to prepare for the opening in question anyway – or even precisely *because* of this 'pre existing condition'. For activists, it can be recommended to study the first match 'Tal vs Botvinnik'. Meanwhile, the world championship fight 'Anand vs Kramnik' showed the value of novelties that led to highly tactical positions in which the theorist Kramnik no longer felt at home because his knowledge of the structures was suddenly worthless.

Typical opening systems that lead to clearly defined structures

– and some of their most renowned advocates

Berlin Wall in the Ruy Lopez (Kramnik)

French (Botvinnik, Moskalenko)

Rubinstein Variation in the French (Georg Meier)

Queen's Gambit with Botvinnik's infamous pawn roller

'Fort Knox' in the French (1.e4 e6 2.d4 d5 3.♘c3 dxe4 4.♗xe4 ♕d7 followed by ♕c6, ♕xe4, c6 etc.)

London System (Sedlak)

Stonewall in the Dutch (Moskalenko)

Accelerated Dragon in the Sicilian (1.e4 c5 2.♘f3 ♘c6 3.d4 cxd4 4.♘xd4 g6)

Maroczy bind with both colors (Tiviakov)

Sveshnikov Variation in the Sicilian (Peter Leko)

Reflectors

Reflectors among world champions: Capablanca, Smyslov, Petrosian, Karpov, Carlsen

Reflectors among other renowned players: Michael Adams, Akiba Rubinstein, Vincent Keymer, Klaus Bischoff, 'AlphaZero', 'Leela Zero'

Their characteristics

Reflectors have a very deep understanding of the game and recognize relevant patterns that remain hidden from everyone else. They have a very fine feel for the harmony and coordination of the pieces. They can communicate with the pieces, so to speak, and can perfectly 'understand' their messages. In addition, they are very good when it comes to restricting the opposing pieces more and more and disrupting their coordination. Therefore, active prophylaxis and strategies of dominance and restriction are typical for them. They are very good in matters of exchange and accumulating small advantages. And they are also very good in strategic endgames, in which their strengths come into their own, because the dynamic potential of the queens no longer 'disturbs' and accordingly less dynamic chaos can arise.

They have a seventh sense for long-term positional sacrifices, especially for exchange sacrifices. They don't calculate many lines, their decisions are based more on general considerations, on their sense of harmony and coordination and on their skilled active prophylaxis.

The reign of strong reflectors on the world championship throne is sometimes very dominant and long-lasting – like e.g. in the case of Karpov and Carlsen. For the other types of players it's not easy to catch up with such a strong reflector, because it's simply impossible to learn or train their special abilities. Of course, everybody can practice tactics and calculation very well, but when it comes to such a feeling for harmony and coordination like that of Karpov or Carlsen, you just have it – or you don't.

Their weaknesses

They are not so good at the calculation of lines and should therefore arrange their training accordingly. Openings can also be one of their weak points. At least they don't advance the opening theory (particularly of sharp lines) like e.g. activists do. For a reflector, it's often enough to get a playable position. Accordingly, the opponent should strive for concrete dynamic positions in which every single move is important and which require much concrete calculation. It should be noted that Magnus Carlsen is quite a strong 'mental calculator' and therefore could also be considered an activist in his youth.

Typical openings

In principle, reflectors may already be happy if they just obtain a playable position, as they don't attach great importance to an objective advantage or to the fact that a computer attests them a more or less clear plus. A certain flexibility is certainly an advantage, since it enables a reflector to evade the opponent's preparation.

With White: 1.d4 followed by strategic systems – or 1.e4 and then e.g. Ruy Lopez with c3 and d3 or the slow Italian with c3 and d3

With Black: Caro-Kann, Tartakower Variation in the Queen's Gambit

Pragmatics

Pragmatics among world champions: Fischer, Euwe, Lasker

Pragmatics among other renowned players: Korchnoi, Caruana, Ding Liren, Karjakin, Vachier-Lagrave, Luis Engel, 'Alpha-Beta Engines'

Their strengths

Pragmatics are characterized by the fact that they have a very concrete approach. They calculate long lines very accurately and rarely blunder. They particularly benefit from sharp, tactical positions in which there's a lot to calculate and one can't just rely on intuition or feelings. The concrete calculation of lines is the basis for decision-making and usually takes precedence over the intuition. The best examples are the engines that are based on the alpha-beta algorithm and can compute millions of lines in a very short time.

Pragmatics incorporate many practically relevant factors into their decision-making and are often good at confronting opponents with problems that are unpleasant to solve in practice. Since they have a good time management, they rarely get into time trouble. Based on their calculation skills, they are willing to pick up material and then defend themselves. This approach has two good reasons.

- From a psychological point of view, it's uncomfortable for the opponent to play with a material deficit, since he 'has to prove something' to avoid a disadvantage in the long run.
- Pragmatics can often defend themselves very tenaciously by using their precise calculation skills. The best example is Sergey Karjakin, who (at least according to his respectful nickname) has the status of the 'Russian Minister of Defense'.

Their weaknesses

The concrete approach can, however, be seen as weakness as well as strength. In strictly technical or positional situations, many pragmatics occasionally feel a little bit insecure because they don't know what to calculate. In general, they have difficulty recognizing long-term plans and incorporating them into their considerations – be it a deep positional plan or an imminent attack on the king still 'too far' behind the horizon.

Some pragmatics will also find intuitive sacrifices difficult if the consequences cannot be clearly calculated. Sometimes they are a little too materialistic (similar to theorists). Overall, however, they are relatively balanced and have no blatant weakness. Not without reason, many of the current top players are pragmatics or have gradually developed into such.

Training options for pragmatics

In technical positions, pragmatics can learn a lot from the reflectors (Magnus Carlsen as the best example) or from the theorists - namely, relying more on their intuition instead of calculating concrete lines. For some, it might be helpful to study attacking games of activists to get a feel for the gradual development of an attack on the king. Of course, it's also advisable to constantly work on the opening repertoire in order to obtain the desired type of position.

Their opponents

Pragmatics have the most problems in quiet, technical positions against strong reflectors or theorists, if the opponent manages to get his pet position or structure on the board. Against such opponents, the goal of a pragmatic must be to avoid precisely this kind of position by playing as sharp and complicated as possible. Games against activists tend to be very wild and dynamic. However, pragmatics must pay particular attention to possible attack plans in order to recognize and prevent them in the style of a reflector.

Their openings

Pragmatics usually play sharp, principled lines and are very familiar with their repertoire. They strive for direct play already in the opening and usually avoid strategic openings such as e.g. English or Catalan. In their games they often advance the opening theory.

Typical openings

With White: 1.e4 (Best by test – according to Bobby Fischer), Ruy Lopez, open lines against the Sicilian

With Black: Sicilian (especially the Najdorf Variation), Grünfeld