Joseki Explained: Intro, Star Opening: Part I
- “Separated in the Subway”

Joseki Explained
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Introduction

This will be the first of probably hundreds of Joseki of which I will be explaining every tactical, strategic, and conceptual choice behind each individual move in each pattern. Every single Joseki will be made understandable, and through use of them in our games, you will feel a deeper understanding and a sense of comfort in applying these variations. The idea is to develop an innate understanding, allowing us to both apply and remember these moves better, and to assimilate these patterns into our play in terms of move functions rather than regurgitating them. Joseki are only useful for the tactics we can pick up and the concepts and judgments we can extract from them. I hope these analyses will meet the following goals:

• Help us feel confident in our games and provide essential Joseki to add to our arsenal for all future games (while as stated above that I do not advocate blind regurgitation of patterns, memorizing is sometimes the precursor to the derivation of Go skills).
• Provide a novel resource from which to gain a deeper understanding of all the moves involved in a given pattern.
• Provide for players/teachers a resource with which to teach Joseki to others, or to which those others could be referred.
• Coin new names for certain moves and patterns, providing assistance with visualizing and remembering them by categorizing them in less of a head-spinningly numerical manner and more of a memorable, nominally visual one.
• Explain every detail of Joseki, allowing us to assimilate everything involved, such as:
  o Whole-board strategy
  o Tewari analysis
  o Situational assessment ability
  o Tesuji (for living, capturing, fixing, cutting, movement etc.)
  o Effective shapes
  o Efficiency of stones
  o Tactical/comparative advantage (eg. comparing a pattern with a similar or obsolete one)
  o The meanings of certain exchanges (eg. a move we normally aren’t supposed to play but has some benefit specifically in said case — or otherwise, a move that seems random until knowing how it affects a local situation), and more.
Thus, players can study Joseki in a fruitful, comprehensive, and exhaustive manner leading to something far removed from a mere increase on our Joseki repertoire. In studying Joseki this way, we may increase our entire understanding of Go and thereby increase our Go winning power!

I am taking it upon myself to coin names for every Joseki I write about. This could allow us all to avoid those times when we’re talking about Go with our friends and finding ourselves inconveniently having to spend a minute or two awkwardly trying to explain to them using references to shapes and coordinate.

Let’s fill the holes of the English-speaking Go world!!

Please enjoy this continuous resource — there will be a lot more where this came from. Please assist me in spreading these documents around the internet and the Go community. I offer full permission to post these entries anywhere — just credit me somewhere (as Ben Mantle and/or as Yukigami) or make reference to my blog, Nevermeltice (http://ygami.blogspot.ca).

Thanks!

Joseki Explained

STAR OPENING

PART I

“Separated in the Subway”

The Joseki featured above is one variation resulting from white’s approach move at (2). White (2), the “Knight’s Move” (“keima” in Japanese), is the most common method of approaching the Star Opening corner at black (1). We very rarely approach in another fashion. The pattern we see above comes up extremely often in real games, including high-dan and pro games. It is important for beginners to learn this Joseki early on (probably before 10-kyu), even though there are more than 10 moves involved.
After black has started off with the star point corner move at (1), white’s approach at (2) is basically the only method of approaching the corner, unless of course local or whole-board circumstances cause a more locally unorthodox play to become more advantageous.

Black (3) is a “pincer”, causing white (1) to be under pressure from both sides by (1) and (3). Because of this, it becomes unfavourable for white to try to make a base (space for points/eye space) on the top edge, due to its relative futility. Below, we see white’s range of normal responses:

The list of white responses from (A) to (E) are fairly exhaustive as far as “normal” moves go. Furthermore, (E) is a lot less common and typically more common in games in which white tries to overcome the disadvantages of a handicap game, and (B) is not uncommon, but allows black to stake out some territory on both the top and the right sides. C and D, some “double approach” moves for this situation, are common. However, they’re more advanced in that they lead to a fair amount of complication, so we will get to them at some later point in this “Joseki Explained” series. We will look at the most common continuation, which succeeds (A).
In this situation, white has invaded at (4) on the 3-3 intersection of the corner, the typical invasion point which I refer to as “the heart of the corner”. Black (B) chops (4) off from (2), and it becomes impossible to connect (4) back to (2) after that as long as black has anything to say about it - but we will see more about that soon.

If white tried to move in a more connected manner, such as white (A) or (B) rather than (4), black would respond with black (4) and white will have only helped black to secure the corner with (4) and will still be lacking sufficient eye space. Thus, white (4), allowing black a chance to cut white off with (B), is the best way to continue among those three choices, and as we will see, white by the end of the sequence will have found sufficient territory without any disadvantage from a local standpoint.

Rather than cut with (B), black may choose (C) in order to begin making a wall that faces and emphasizes territorial development on the right side of the full board (just south of this local situation). The choice of black (C) leads to several variations all leading to white gaining the whole corner and black gaining a large wall facing south. A popular example variation is displayed below:

Slightly off topic: for the above shape I coin “Cattle Wall”. Maybe it should be called “Herding Sheep”? Black gets an obvious wall, the formation is black and white of course, and if we flip the perspective...
The three black stones making up the double knight’s move triangle form the part we can call a cow’s head (perhaps including the nearest white stone). The vertical white stones represent the front legs, and the horizontal black stones and white stones represent some of the rest of the body, the three horizontal black stones being the cow’s back.

Can you see it??

Continuing from where we left off,

Compared to the aforementioned alternative Joseki, in which black chooses to block the bottom side with (A) instead of cutting with (1), the variation we see here emphasizes the top edge of the board, building a black wall that faces and thus emphasizes the area to the left (west) of it. Black (1) is the best way to cut white’s corner stone off from its ally. This is because:

1. It is connected to the Star Corner stone, and by sharing liberties with it, prevents a liberty shortage for black, and;
2. At the same time, it decreases the liberties of the white corner stone by touching it, and also limits the white corner group’s ability to expand eye space.

Because of these various effects of (1), White’s fastest escape/expansion moves toward the most open area, (D) and (E), do not work well. If White (D), Black pushes in at (A) and when white blocks with (F), Black rips white apart with the atari at (G).
As for E, it is low to the ground (near the edge) and thus surrounds little territory. Furthermore, there are a plethora of options here for black to take advantage of the corner stone’s liberty shortage; even just black (C) is might be enough.

White (B) and (C) are on the second line and seek eye space toward the top edge rather than the more open area down south along the right edge of the board. When compared with the real Joseki variation (as we’ll see), these options are inferior.

White (F) is the right idea, but is needlessly close to the edge in this case. On the other hand, White (A) is the simplest and best move. It increases the corner stone’s and thus also its own liberties, it expands eye space as much as safely possible and avoids moving down needlessly to the second line, and it affects the black stones outside of it by decreasing their total remaining liberties from five to four as well. The shortening of liberties carries effects that sometimes take place later on, with increasing consequences as liberty counts are reduced to small numbers like 3, 2, 1, and of course zero.

The correct move for black is to match face by extending to (3), keeping ahead of white as well as increasing black’s own liberties.
Normally, black wants to Hane here at (1). This is because a Hane - in this case usually continuing with white (D) and then black (E) - pushes white’s territory down a line closer to the edge while increasing the size of the area around black’s wall - thus increasing black’s potential territory.

While exchanging territory for wall is usually close to even (fair) when the territory is on the third line, 2nd-line territory is not worth trading a wall for at all, as it gains just one point at a time. Crawling on the second line is played often but for special reasons only, such as to reduce a finished territory, obtain necessary extra eye space, prevent a forcing move (Sente) available to the opponent, etc.

For example:

Here is an unfinished sequence resulting from white invading black’s Star Corner at the 3-3 intersection with (2). If white plays elsewhere after black (9), black can look for the right timing and play a forcing move at (A). If black blocks at (B) to defend his eye space, (C) is now sente for black – black can capture the entire corner if white ignores again (see next page for the variation). For this reason, white expands the corner with the sequence of (A)(D)(B)(E) even though it gives black a very powerful outside shape, because it avoids a lot of painful sente moves available to black that fully block off both the top and the left sides of the board in sente. After white (6), the unhappy crawl at (8) is necessary in order to prevent black from playing a sente move at (8).
From the position above, if white plays elsewhere (tenuki) with (4), black can capture the corner as follows. Using the fundamental principle of life and death by reducing the space before playing on a vital point inside, black’s best sequence begins with (5). Next, black reduces from the other side with (7) before playing on the key point of (9). It should not be difficult to see identify the appeal of black (9) as a white move there would very clearly bestow life upon the white group. Capturing with (E) is futile for white, as black can just safely contain white with (F) and white obtains nothing more than a false eye. White can attempt to find two eyes using (A), (B), or (C), but regardless of which move white tries, black responds to any of them with the clever tesuji of (D).

If white A, black captures white with the atari at (12). If white plays any combination of (10) and (12), responds with the double tesuji combination of (11) followed by (13) in the above diagram. Any other variations not mentioned are even simpler for black to carry out.
Going back to the main discussion:

Left: In this situation black (1) is wrong. There is a cut at (C) for white that black must worry about this time, and the best way for white to exploit it is to first exchange white (A) - threatening to connect under to the original corner approach stone - for black (B), which blocks it off. White then cuts at (C).

Right: So white exchanges (2) for (3), then cuts at (4). As you will see, the cut at (4) is fairly devastating. Note that even if black ignores (2) to come back to connect at (4), white will connect up to his outside stone with white (3). We see this in the diagram below, on the left:

LEFT: White (4), preparing to cut at (5), is correct. Black may minimize losses by connecting at (5), allowing white passage to unite with (6), and this is generally the best way for black to salvage the situation after the mistake of black (3). But the result remains better for white.

RIGHT: The diagram on the right will be used for comparison; as we compare the two shapes, we see that white’s total territory is greater in the diagram on the left. Black plays (1) in the diagram on the left in order to emphasize the left side of the board (below this corner), and only if black already has a stone one or around the left side star point (see below):
As we can see in this diagram, black (7) works well with the wall black gets from the Joseki. The right side becomes well-constructed potential territory. If we imagine the other shape, however...
...We can see that black’s total potential area on the right side is less this way. Furthermore, white’s corner has yet to be sealed off. Lastly, the original pincer play by black, located just left of white’s corner there, is no longer working efficiently. Black would have to add another move in order to properly block white off, and even then, this black stone is not in a very good place for developing the now-important right side.

Thus, the result is unfavourable for black.

Let’s continue with the explanations! We are almost through all of the variations following the mistaken Hane.
After white cuts at (4), black may try (5) or similar to save the group at (1), but white (6), by reducing the liberties of the other black group, captures it. Despite the disconnected and liberty-short appearance of the outside white stones such as (4) and (6), the capture of black (3) is clean:

The diagram above shows us that black (1) does not begin a ladder; After black (3) and white (4), black’s stone at (1) has been put into atari, so the ladder has failed.

If black tries to connect back with (7), white easily foils this attempt with (8), a basic Tesuji that takes advantage of the black group’s liberty shortage; black cannot cut off white (8) from white (6), as this would put black’s own stones into atari and get them captured by white.
LEFT: How about if black plays atari at (13), causing white (14), and then another atari at (15), taking advantage of the fact that the first atari at (13) reduced white (12)'s liberties?

RIGHT: Well, white connects at (16) and black can try to connect back with (17), but... Even though white can’t wedge in between with (19) this time, white can just atari with (18), then capture everything cleanly with (2) - black has collapsed.

Lastly, we have this variation.

Black might instead attempt to save the larger cluster by playing (1), for example, but after white (2), black’s original Hane stone is captured up to (4) and black suffers a large disadvantage in this variation as well.

To conclude the analysis of the mistaken Hane then:

Black should not play the Hane at (1), as it leads to major consequences due to proximity to the stone white used to approach the Star Corner.
If we have already played the mistaken Hane, we should most definitely salvage the situation in the way shown in the diagram to our left.

Let us return to the main discussion then.

To refresh what was stated earlier, let's be reminded that (3) is the correct move for black because the Hane is mistaken and leaves behind a lethal cutting point.

Continuing,

White (4) is generally not correct, as this allows black to Hane at 5. Unlike the previous mistaken Hane we thoroughly analyzed, the addition of black (3) before playing Hane does not suffer the same immediate problem as did the black Hane at (4). With (5), white is pushed down to the second line at (6) and the local result starts to look favourable for black. This would seem especially the case if we compare the shape in this above diagram to the one from the completed, correct Joseki we are currently analyzing. Here is the comparison: (see next page).
RIGHT: As we can see, the white on the right in the correct Joseki seems to surround more space and gets is out in the open with (5).

LEFT: On the left we can observe that white has been squished down to (6) by black (5) and (7), and yet once (4) has been placed down, white (6) is often a necessary play in order to prevent a black forcing move at (6), which would threaten white’s eye space.

In fact, After white (6) and black (7), a black “turn” to the right of (7), blocking off the side, reduces white (6) to three liberties and threatens to capture it (by then playing above [6]). Due to this, white will usually grovel on the second line once more to the right of (7) in order to prevent black from gaining a lot of points from that Sente play. In other words, white’s best local continuation is at the same time a poor one, trading an increase on black’s wall for 2nd-line one-at-a-time territory.

Not only is white better and freer in the diagram on the right, but black’s wall is also smaller. This, we can conclude that the variation in the left diagram is unfavourable for white.

The previously discussed variation is precisely why in Go, we always want to stay “ahead” of our opponent. If we don’t, we may get squished down by Hane plays or 90-degree turns, as we just saw.

White does need to move out with the triangle stones, but how?
The Knight’s Move of white (B) instead of (1) is low (close to the edge, and thus lacking in territory and global impact/influence); furthermore, black can respond to it with black (1) which, depending on how the sequence continues, either reverts to the right diagram from the just previously discussed two-diagram comparison, or leads to other consequences for white.

Using the same logic to refute other considerations, we should naturally consider white (1) in the above diagram, as it gets ahead of black and is not dissatisfyingly close to the right edge of the board. Analyzing the shape we see that after black pushes at (2) and white naturally blocks at (3), white (1), (3), and the triangled stones each have only 3 liberties (as they are not connected by their liberties, and thus count as 3 separate “groups”). There are cutting points at (A) and (B), which black should immediately exploit.

**Offense is very often the greatest defense - this is especially true in Go!**

**LEFT:** Continuing from the previous diagram, if black cuts at (5), white should atari at (6) if white wants to save the corner white stones. But because black (5) - now a sacrificial play - has reduced the white stone located above (7) to just two liberties, black (7) becomes an effective counter-atari; after white captures with (8), Black captures the outside white stone in a ladder with (9) and the result is superior for black. Whether or not there are problems with the ladder, black may also opt to simply extend at (A) in place of (9), which still yields a far superior result.

**RIGHT:** White can avoid the result in the right diagram by connecting at (1) in response to the cut of black (A), but black (2) completely captures the corner white stones, as we see in the continuation up to black (6). Moreover, the white group of (1) is not even strong yet.

**LEFT:** Black could also play (5) at (7), starting there instead. White should capture it with (A). After black plays the counter-atari at (5) - this time sacrificing black (7) - white captures (7) by playing to the right of it, and black captures the corner stones with (6), which works as we see in the right diagram.

However, this result allows white to become strong on the outside by capturing black (7), and this is more than black needed to offer to white even if the result is still acceptable or favourable.
The correct way for both sides is shown in the diagram on the left, and the result is superior for black.

Thus, white (1) in the diagram, to the right, is incorrect. The idea to get out and ahead of black is correct, but white’s stones lack the liberties to do so in this best of ways.

So...
How can white move out properly? It seems like we’ve already tried everything.

Not exactly.

This diagram (left) shows the correct continuation for both sides, from start to finish.

As discussed in earlier variations, black should not allow white to connect to the friendly stone at (2). Thus, when white plays (8) and black plays (9), white can connect and expect black to also connect. White has gained liberties through these exchanges, and after black’s connection at (11), white is able to jump over and get out with (12) because the push-and-cut for black no longer works. If black tries to push and cut this time, white just prioritizes the stone at (12) and black’s inside stone(s) will not have enough liberties to win a capturing race against the white corner [(4),(6),(8),10]].

I hope these explanations prove exhaustive and thorough, and thoroughly useful!
We will continue with many more Joseki to come!
...But it’s not only limited to Joseki~
“Cattle Wall” Joseki coming soon! Stay tuned!