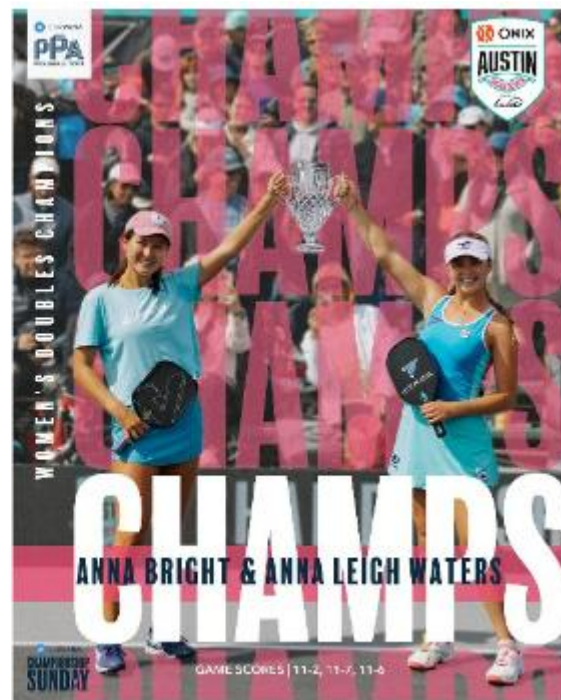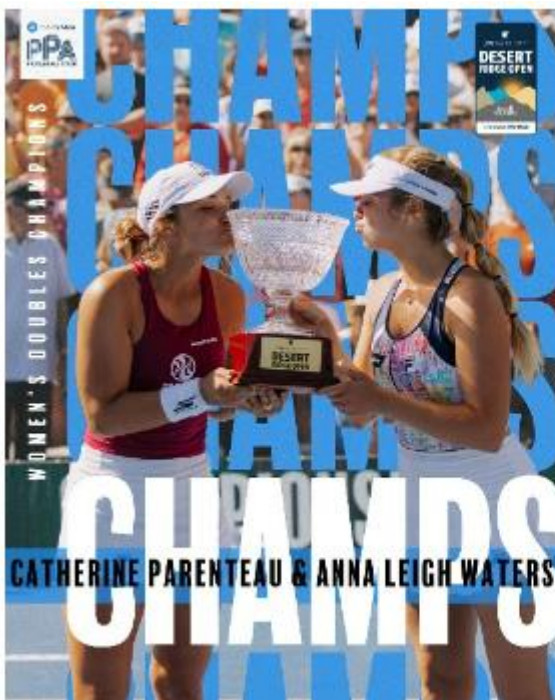# Stuck between a pillow and a soft place – Anna Leigh's 2023 Decision

Introduction

It's the hot topic of the pro tour in early 2023 – who is Anna Leigh (AL) going to play women's doubles with for the near future? Your guess is as good as ours, but now that we've made it to April, we've seen AL play with both Catherine Parenteau (CP) and Anna Bright (AB) in several PPA tournaments. This analysis will examine the differences between these two pairings, both in terms of strategies deployed and performance. But first…

- This analysis is **not** advocating for AL to choose either player. Who knows what criterion AL and her camp are prioritizing, and if she is even going to make a choice at all. There is so much that goes into choosing a partner, and partnerships can end as quickly as they begin.
- This analysis is a data-driven comparison of the strategies deployed and the performance of the AL + Catherine Parenteau (CP) and AL + Anna Bright (AB) partnerships in recent PPA matches.

Image 1 - Anna Leigh captured gold at several events with Catherine Parenteau, and with Anna Bright
Photo credit to the PPA Tour

At a Glance

- Neither partnership performed significantly better than the other, but each partnership deployed different tactics.
- The AL/CP partnership's success was driven by Catherine's ability to setup Anna Leigh with effective thirds. While playing with Catherine, Anna Leigh was able to speed more balls up at the kitchen, suggesting that Catherine used her dinks to set up these opportunities.

- The AL/AB partnership's success was driven by both player's ability to set *each other* up. This partnership actually had the most success when *Anna Leigh* was hitting thirds and Anna Bright was applying off ball pressure. This partnership sped the ball up less frequently at the kitchen, and had similar outcomes in hand battles.

Data Used

Rally outcome and shot level data was collected on 10 matches from recent PPA events featuring the AL/CP and AL/AB partnerships. Data was collected using the pklmart Data Entry Tool. A special shoutout goes to Jack Olmsted (aka DigitalReporter) for performing the majority of the data collection.

Matchup	Tournament	Score	Rally/Shot Count
AL/CP def. **Lea Jansen & Jackie Kawamoto**	PPA Hertz National Championship (Dec 2022) 🥇	11-3, 11-6, 2-11, 11-6	152/1,655
AL/CP def. **Vivienne David & Anna Bright**	PPA Desert Ridge Open (Feb 2023)	11-4, 11-3	58/636
AL/CP def. **Allyce Jones & Lea Jansen**	PPA Desert Ridge Open (Feb 2023) 🥇	11-7, 11-9, 7-11, 11-3	141/1,355
AL/CP def. **Meghan Sheehan-Dizon & Etta Wright**	PPA Red Clay Hot Sauce Florida Open (Mar 2023)	11-0, 11-2	46/523
AL/CP def. **Jade Kawamoto & Lacy Schneemann**	PPA Red Clay Hot Sauce Florida Open (Mar 2023) 🥇	11-8, 11-3, 11-9	133/1,343
AL/AB def. **Lucy Kovalova & Callie Smith**	PPA Hyundai Masters (Jan 2023) 🥇	11-7, 11-5	68/652
AL/AB def. **Allyce Jones & Lea Jansen**	Carvana PPA Arizona Grand Slam (Feb 2023)	11-4, 9-11, 11-3	103/1,303
AL/AB def. **Jessie Irvine & Jackie Kawamoto**	Carvana PPA Arizona Grand Slam (Feb 2023) 🥇	7-11, 11-7, 11-1, 11-3	151/1,808
AL/AB def. **Catherine Parenteau & Jorja Johnson**	PPA ONIX Austin Showdown 2023 (Mar 2023)	11-6, 11-3	65/608
AL/AB def. **Vivienne David & Meghan Sheehan-Dizon**	PPA ONIX Austin Showdown 2023 (Mar 2023) 🥇	11-2, 11-7, 11-6	127/1,183

Table 1 - Summary of matches analyzed; medal emoji indicates the match was a gold medal match

Analysis

Let's start with the obvious: regardless of her partner, AL has won every women's doubles PPA event she has played with either partner. To understand the differences between the AL/CP and the AL/AB partnerships we'll need to look at more than just wins and losses. In this analysis, we compare these partnerships by looking at:

1. **Overall Performance**
   How often did each partnership win any given rally?
2. **Relative Workload**
   Which player was hitting more shots? How often was each player involved with ending the rally, and how did those rallies end?
3. **Left/Right Side Strategy**
   How often did AL play each side of the court? What was more effective?
4. **Third Shot Effectiveness**
   What third shot approach worked for each partnership? What didn't?

5. **Speedups and Countering**
   How aggressive was each partnership at the kitchen? Did aggression result in winning rallies worth it? What about when AL's opponents were initiating hand battles?

A Quick Disclaimer

While this analysis aggregates data from over a thousand rallies, keep in mind that the opponents in each match have a large impact on AL and her partner's performance. While we only are looking at five matches for each partnership, all of these matches were either semi-finals or gold medal matches, and thus feature high quality opponents. We do not account for any skill difference in AL/CP's and AL/AB's opposition.

Anytime the 🔥 and/or 🧊 emojis are used, a statistically significant difference was found. The comparison being referenced is explained in the respective *Takeaways* section.

🔥 : *indicates a relative strength*
🧊 : *indicates a relative weakness*

Overall Performance

Let's start with a straightforward metric – the percentage of rallies won for each partnership. If either partnership was more dominant than the other, we'd expect these metrics to reflect that. However, we see that overall win rates across the partnerships are remarkably similar. Winning over 50% of rallies while serving against high quality opponents is especially noteworthy.

	Anna Leigh & Catherine Parenteau	Anna Leigh & Anna Bright
% Rallies Won, Serving	**51.4%** N: 296 Rallies	**50.5%** N: 293 Rallies
% Rallies Won, Returning	**63.7%** N: 234 Rallies	**65.9%** N: 223 Rallies
% Rallies Won (Overall)	**56.8%** N: 530 Rallies	**57.1%** N: 516 Rallies

Table 2 - Rally win rates by serve/return status by partnership

Takeaways

- Both partnerships were absolutely dominant, especially on serve. For comparison, the average rally win rate while serving is ~40%.
- There isn't enough data to say if a given partnership performs better while serving and/or returning.

Relative Workload

History suggests that whoever plays with Anna Leigh is likely to get targeted. This makes playing alongside AL a tricky scenario; not only do you need to perform at a high level, but you need to do so across a higher volume of shots than you may be used to. Data from other sports such as the NBA shows that high performance becomes more difficult as your usage rate increases (unclear if this is true in pickleball).

	Anna Leigh	Catherine Parenteau	Anna Leigh	Anna Bright
% Balls Hit	45.2%	54.8%	43.1%	56.9%
Avg Rally Length	15.01		16.07	

Table 3 - Balls hit by player, average rally length by partnership

Looking at the percent of balls hit, we see that both Catherine and Anna were both mildly targeted. However, as we'll see later, their high usage rates were also driven by the fact that they were less likely to speed balls up and thus engaged in extended dink rallies.

Next let's try and understand the shot quality of each player. To do this we consider all shots a player hit, and then calculate rate at which the opponents were unable to return the shot, and the rate at which the shot ended the rally because it was an error.

	Anna Leigh	Catherine Parenteau	Anna Leigh	Anna Bright
Unreturned % *% of shots which the opponent did not successfully return; includes winners*	🔥 11.7%	10.2%	🔥 12.0%	9.2%
	10.9%		10.4%	
Error % *% of shots hit listed as an error; includes unforced errors*	🎲 6.5%	4.3%	🎲 7.7%	5.2%
	5.3%		6.3%	

Table 4 - Unreturned shots and error percentages by player & partnership

These numbers reflect what most pro pickleball fans may have expected – Anna Leigh is an aggressive player. While she does commit an error on ~7% of her shots, her shots are not returned almost 12% of the time! While critics may focus on her higher error rate, it's worth nothing that Anna Leigh is covering more court than her competitors. For example, check out where Anna Leigh is hitting her winners and errors from – even when playing the right side, she is covering close to the middle of the court.
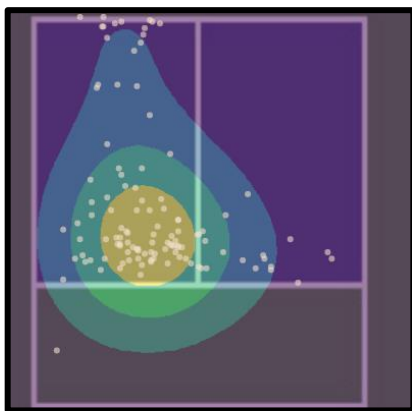

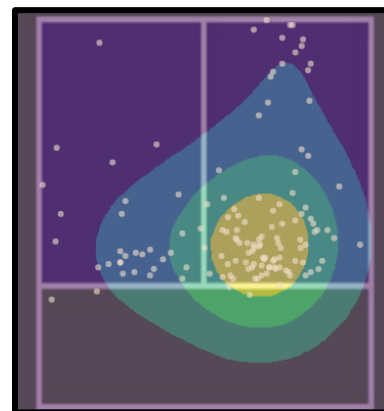*Image 2 - Anna Leigh's winners & errors when playing the right side*

Image 3 - Anna Leigh's winners & errors when playing the left side

Takeaways

- Anna Leigh is clearly the more aggressive player in both partnerships, resulting in a higher percentage of balls unreturned, but also more errors.

- Relative to Catherine, Anna Bright hit more shots per rally in their partnership, though the quality of those shots may have been slightly worse.
- There is not enough data to suggest that either partnership hit unreturned balls or committed errors at a higher rate than the other.

Left/Right Side Strategy

Those who play competitive pickleball know that playing the left side requires a different skillset than playing the right. For starters, playing the left typically entails taking more of the court (assuming both players are right-handed). However, this concept doesn't apply when playing alongside AL, as she is known for dominating with her *backhand* in the middle, and frequently cutting across the court mid-rally.

	Anna Leigh & Catherine Parenteau		Anna Leigh & Anna Bright	
	Rally Count	**Rally Win %**	**Rally Count**	**Rally Win %**
Serving: AL on the **Left**	138	49.3%	142	49.3%
Serving: AL on the **Right**	158	53.2%	151	51.7%
Returning: AL on the **Left**	117	62.4%	96	67.7%
Returning: AL on the **Right**	117	65.0%	127	64.6%
Returning: Stacked (AL on either side)	80	🎲 52.5%	45	🎲 57.8%

Table 5 - Rally win rates by player side

Takeaways & Analysis

- When serving, putting Anna Leigh on the right side may be the more effective strategy, however we don't have enough data to draw this conclusion.
- Both teams, especially AL/CP, experienced a dramatic drop in performance when stacking on the return. This is consistent with an earlier analysis that took a closer look at the ideal return.

Third Shot Effectiveness

There are so many variables at play when it comes to hitting third shots. Who should take it? Should they drive or drop? Previous breakdowns[1] of Anna Leigh's matches with Leigh Waters showed that Leigh was hitting the vast majority of thirds, which allowed Anna Leigh to roam free. Did this pattern hold true in AL's new partnerships?

	Anna Leigh	Catherine Parenteau	Anna Leigh	Anna Bright
Third Taken % *% of third shots taken*	61.1%	38.9%	39.6%	60.4%
Drive % Rally Win %	54.0% 46.8%	57.5% 56.3%	45.6% 46.2%	29.5% 🎲 35.6%
	55.3% 50.6%		32.4% 41.2%	

	Drop %			
Drop %	46.0% 43.8%	42.5% 🔥 59.3%	54.6% 🔥 64.5%	74.1% 49.6%
Rally Win %	44.5% 49.6%		67.6% 🔥 54.5%	

Table 6 - Third shot approach and performance by player, partnership
(does not include the rare third shot lob)

Here we see a dramatic difference in both *who* is taking thirds and the *type* of third each partnership prefers. Starting with the AL/CP partnership, we see a pretty even split between dropping and driving. However, in both cases it seems like having Catherine hit the third and Anna Leigh roam is the more effective approach. In previous reports we've also seen Catherine's thirds are extremely effective.

In contrast, the AL/AB partnership benefits from having Anna Leigh hitting the third and Anna Bright roaming. Regardless of who hit the third, AL/AB faired better when they dropped their thirds justifying their decision to drop over 2/3 of the time.

In both partnerships the player who has *more* success hitting thirds is also the player who hits *less* thirds. More analysis needs to be done to understand if this is due to opponents' return patterns, and/or if this is a conscious decision each pairing is making.

Takeaways & Analysis

- While AL/CP used drives and drops at a similar rate, AL/AB deployed a drop-heavy strategy.
- Consistent with Catherine's mixed performance with James Ignatowich, having Catherine hit the third and letting Anna Leigh roam was more effective in their partnership, but the opposite was true for AL/AB.
- In both partnerships the player who has more success hitting thirds is also the player who hits *less* thirds. This may be due to opponents targeting a specific player with their returns.

Speedups and Countering

Anna Leigh *loves* to take a step back and let it rip. Having watched her for years, it seems like the average rally has at least one hand battle, if not more. As AL's partner you know that almost any ball AL touches near the kitchen could initiate a firefight. From AL's perspective, having a partner who can hang in quick exchanges is almost certainly a requirement.

	Anna Leigh	Catherine Parenteau	Anna Leigh	Anna Bright
Total Dink Rally Shots *Includes dinks and initial speedups. Does **not** include resulting hand battles.*	223	343	215	345
Dink % *How often was the ball being dinked?*	70.4%	77.8%	78.1%	82.4%
	74.9%		79.5%	
Speedup % *How often was the ball being sped up?*	🔥 29.6%	22.2%	21.9%	17.6%
	🔥 25.1%		20.5%	

Table 7 - Dink and speedup rates by player, partnership

We notice that in both partnerships AL is more likely to speed up than her partner. However, when playing with Catherine it appeared that AL chose to speedup more often. There are several reasons this could be the case, but let's examine if those speedups actually led to winning the rally:

	Anna Leigh	Catherine Parenteau	AL/CP's Opponents	Anna Leigh	Anna Bright	AL/AB's Opponents
Speedups	142		101	117		77
Led to Win %	43.9%	48.7%	37.6%	47.1%	48.5%	42.9%
	46.5%			47.9%		
Neutralized % *Dinking occurred after the speedup*	22.7%	28.9%	29.7%	21.6%	31.8%	22.1%
	26.1%			27.4%		
Led to Loss %	33.3%	22.4%	32.7%	31.4%	19.9%	35.1%
	27.5%			24.8%		

Table 8 - Speedup and countering performance by player, partnership

Both partnerships won almost half of the speedups they initiated. Given that they only lost ~33% of the time, it makes sense why they chose to speedup so frequently. In contrast, their opponents were 37% less likely to speedup, and were less successful when doing so. However, opponents of both AL/CP and AL/AB were still more likely to win than to lose a hand battle that they initiated.

Given these high success rates when speeding the ball up it's easy to wonder *why don't pros speed the ball up more often?* This is a nuanced question that will require more analysis, but in the meantime, I encourage you to think about the following: *most professionals are only speeding the ball up in advantageous positions. Would they continue to win rallies if they sped up relatively less attackable balls?*

Takeaways & Analysis
- Both partnerships were more than aggressive than their opponents when it came to speeding the ball up at the kitchen.
- Anna Leigh was the more aggressive player in both partnerships, but this was especially true when playing with Catherine.
- The AL/CP partnership was slightly more likely to initiate a hand battle than AL/AB.
- Both partnerships were highly successfully in hand battles that they initiated.