

I found an interesting approach for a WOWY analysis. WOWY means "With Or Without You", and it shows the data of two players when they are on the ice together, when they are on the ice without the other, and their team's data when neither are on the ice.

In this article, I will look at two players from each Canadian team, and ask this question: should they play together?

A quote from the King James bible comes to mind: "... wherefore they are no more twain, but one playing pair. What therefore the Coach hath joined together, let not an analyst put asunder."

Method

Data from the last three seasons (2019/2020 to 2021/2022) will be used. On each team I will select players who are both forwards (or both defensemen), and who have played on the ice together for a good amount of time.

Only players who have played 1,250 or more minutes of 5v5 ice time in the last three seasons will be included. Tyler Motte (Vancouver) has played 1,250.5 minutes of 5v5, and so qualifies as a potential pair. Rasmus Sandin (Toronto) has played 1,239.3 minutes of 5v5 and does not qualify as a potential pair.

Only players who are currently with the team will be included, because the gist of the question is "should they play together in 2022/2023."

As to the statistics used to determine whether a pair should play together, I will use Corsi, expected goals and actual goals. By using these data, I will be able to balance shot attempts, expected goals and actual goals in a fun (for me) way.

5v5 game data is being used because a power-play pair would obviously look like they should play together, and a penalty-killing duo would look like a defensive disaster.

I think a detailed example would be useful: it'll let you see the process.



Canadian NHL Doubles - Vancouver

Let's look at Brock Boeser and J.T. Miller.

In the last three seasons, Brock and J.T. were on the ice in a 5v5 situation for a total of 1,575 minutes. The Corsi data for the pair were 1,558 for, 1,380 against. The expected goals data for them were 67.37 for, 63.59 against. In actual goals, they were up 85 to 76.

First, the Corsi data is converted to an equivalent number of goals. The conversion factor is 0.0464, because 4.64% of Corsi (attempted shots) become goals. Per 60 minutes of ice time, their Corsi score is 2.75 to 2.44.

Actual and expected goals are also converted to scores per 60 minutes. Their expected goals score is 2.57 to 2.42, and their actual goals score is 3.24 to 2.89.

Now the three scores are converted to one score using weighted averages. The more important data get a bigger weight. The weights are 8 for actual goals, 5 for expected goals and 3 for Corsi goals. Result: 2.94 to 2.66.

Finally, I'll estimate the number of standing points a team would get in an 82-game schedule if they had this average score (using the hockey variant of the Pythagorean winning percentage method). 2.94 to 2.66 would get 99 points.

This process is repeated for Boeser playing without Miller, for Miller playing without Boeser, and finally for neither player being on the ice.

Player 1	Player 2	GF/60	GA/60	Pts/82	GF/Dif
Brock Boeser	J.T. Miller	2.94	2.66	99	0.28
Brock Boeser	w/o J.T. Miller	2.51	2.56	88	-0.05
w/o Brock Boeser	J.T. Miller	2.90	2.58	101	0.32
w/o Brock Boeser	w/o J.T. Miller	2.19	2.59	75	-0.40

Should Brock and J.T. play together? Brock does better when he's paired with J.T., but J.T. does better when he plays without Brock. The kicker is what happens when neither is on the ice: Vancouver is bad with these guys on the bench.

I'd look at this data and say the main goal has to be to reduce the amount of time that Boeser and Miller are on the bench together. The most effective way to do that is to play them on separate lines. And I'd give more minutes to Miller than to Boeser.

For the rest of the teams, I'll skip the details about the calculations and go straight to the player data table.



Canadian NHL Doubles - Calgary

Player 1	Player 2	GF/60	GA/60	Pts/82	GF/Dif
Andrew Mangiapane	Mikael Backlund	3.02	2.23	117	0.79
Andrew Mangiapane	w/o Mikael Backlund	2.79	2.27	108	0.51
w/o Andrew Mangiapane	Mikael Backlund	2.56	2.55	91	0.01
w/o Andrew Mangiapane	w/o Mikael Backlund	2.54	2.31	99	0.23

The data indicate that Backlund benefits from playing with Mangiapane. Mangiapane's GF differential drops 0.28 when not playing with Backlund, but Backlund's GF differential drops 0.78 when not playing with Mangiapane.

It is interesting that Calgary plays a little better with both players off the ice than with Backlund out there without Mangiapane.

I'd say Backlund should play almost all of his shifts with Mangiapane, and Mangiapane should get a couple of extra shifts a game.

Canadian Doubles - Edmonton

Player 1	Player 2	GF/60	GA/60	Pts/82	GF/Dif
Connor McDavid	Leon Draisaitl	3.65	3.08	105	0.57
Connor McDavid	w/o Leon Draisaitl	3.15	2.48	112	0.68
w/o Connor McDavid	Leon Draisaitl	2.72	2.51	97	0.21
w/o Connor McDavid	w/o Leon Draisaitl	1.89	2.48	66	-0.59

Playing McDavid and Draisaitl is instant offense for both teams in the game. The game scoring pace when they are on the ice is 6.73 (3.65+3.08) goals per game; when they are both on the bench the scoring pace is 4.37 goals per game.

When these two are on the bench, Edmonton plays like a team that will have a top-five draft pick. When either or both is on the ice, they are a playoff team.

Edmonton should maximize the time at least one of these two are on the ice, so I'd play them apart (except for the power play).



Canadian NHL Doubles - Winnipeg

Player 1	Player 2	GF/60	GA/60	Pts/82	GF/Dif
Kyle Connor	Mark Scheifele	2.89	3.20	81	-0.31
Kyle Connor	w/o Mark Scheifele	2.47	2.62	85	-0.15
w/o Kyle Connor	Mark Scheifele	2.81	2.85	89	-0.04
w/o Kyle Connor	w/o Mark Scheifele	2.07	2.16	86	-0.09

Given these guys are both VR-Star level players, the results shown above are quite surprising. They have played 5v5 together for 1,411 minutes over the last three seasons, which is more than 23 games, so this isn't based on a trivial amount of data.

When on the ice individually, both goals for and goals against increase. When on the ice together, they increase a lot. One gathers that they aren't gifted defenders, but they make up for that by being gifted scorers.

The difference in standing points for the four playing situations is almost trivial. To a certain extent, it doesn't matter how they are used, as Winnipeg would be an 80-90 point team in all situations.

I'd advise they should play apart at the start of a game, and move them together only if Winnipeg needs to score.

Canadian NHL Doubles - Toronto

Player 1	Player 2	GF/60	GA/60	Pts/82	GF/Dif
Auston Matthews	Mitchell Marner	3.64	2.23	131	1.41
Auston Matthews	w/o Mitchell Marner	3.04	2.50	108	0.54
w/o Auston Matthews	Mitchell Marner	2.33	3.12	65	-0.79
w/o Auston Matthews	w/o Mitchell Marner	2.55	2.43	94	0.12

While I was surprised with the Winnipeg data, I was shocked by the Toronto data. Marner and Matthews are VR-Elite level players. The first thing I did when I saw this data was to confirm, as best I could, that it was accurate.

The idea that a VR-Elite player would play very poorly unless paired with another VR-Elite player does not make sense. Elite players should be raising the play of others, regardless the level of those players. The way that Matthews does.

It's harsh, but I wouldn't let Marner on the ice in 5v5 situations unless Matthews was with him. They should definitely play together, for Marner's sake.



Canadian NHL Doubles - Ottawa Forwards

Player 1	Player 2	GF/60	GA/60	Pts/82	GF/Dif
Tim Stutzle	Drake Batherson	2.43	2.26	97	0.18
Tim Stutzle	w/o Drake Batherson	2.43	3.13	68	-0.70
w/o Tim Stutzle	Drake Batherson	2.56	2.74	84	-0.18
w/o Tim Stutzle	w/o Drake Batherson	2.32	2.65	78	-0.33

When they played together, they were great. Ottawa has been nothing like a playoff team these last three seasons, but when these two are on the ice together, they turn Ottawa into a playoff team. Right now, Batherson is the better player.

These two should play together. Later in his career, the hope is that Stutzle will be a player than can carry other players. Right now, he benefits from being with Batherson.

It will be an interesting year, because Ottawa's acquisitions (Giroux, DeBrincat) open the door for many other possibilities.

Canadian Doubles - Ottawa Defensemen

Player 1	Player 2	GF/60	GA/60	Pts/82	GF/Dif
Artem Zub	Thomas Chabot	2.60	2.34	100	0.27
Artem Zub	w/o Thomas Chabot	2.31	2.42	86	-0.12
w/o Artem Zub	Thomas Chabot	2.59	2.70	86	-0.11
w/o Artem Zub	w/o Thomas Chabot	2.20	2.84	68	-0.64

The data confirms what we already know: Zub is a defensive defenseman, Chabot is an offensive defenseman. When Zub is on the ice, Ottawa's defense is about 0.4 goals per 60 minutes better (2.4 vs. 2.8). When Chabot is on the ice, Ottawa's offense is 0.35 goals per 60 minutes better (2.6 vs 2.25).

I'd play these two apart, simply because Ottawa's results when neither of them is on the ice are terri-bad. There is hope that one of Ottawa's young defensive prospects can play respectably in a top-four role.

The life of a Senator fan is a life of hope.

Canadian Doubles – Montreal

I could not find a meaningful pair of players in Montreal. Montreal's lineup has been in a constant state of turmoil these last seasons, and no two forwards and no two defensemen have played all three seasons and played at least 500 minutes together.

Suzuki and Drouin were the closest thing to a pair by the time definition, but they aren't a pair in any real sense. They are vastly different in terms of the quality of their play.

Summary

Going into this, I thought the data would indicate that two good players should play separately because their team record with both of them sitting on the bench would be poor. It turns out that wasn't always the case.

Team	Player 1	Player 2	Together Asunder
Vancouver	Brock Boeser	J.T. Miller	Asunder
Calgary	Andrew Mangiapane	Mikael Backlund	Together
Edmonton	Connor McDavid	Leon Draisaitl	Asunder
Winnipeg	Kyle Connor	Mark Scheifele	Yes
Toronto	Auston Matthews	Mitchell Marner	Together
Ottawa F	Tim Stutzle	Drake Batherson	Together
Ottawa D	Artem Zub	Thomas Chabot	Asunder
Montreal	Nobody	Nobody	N/A

In the three instances where I recommend the pair be put asunder, it was for the expected reason: the team involved plays poorly when the pair is on the bench.

For Calgary, Toronto and the Ottawa forwards, it was recommended that their pairs stay together. In both cases, it was because one of the two players seemed to play poorly without the other. By far the biggest surprise was Marner in Toronto: it is incredible how poorly Toronto has played when Marner was on the ice without Matthews.

Winnipeg was a special case, as there was almost no difference in team-level expectations (points per season) when the pair was together on the ice, together on the bench, or one on the bench and one of the ice. The answer to the question "should they play together or apart" was "yes." Putting them on the ice increased scoring for both teams, so they should be on the ice when Winnipeg needs to score a goal.

Montreal had no pair of players that was useful for this analysis.