# Introduction to Bi-gons

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# 1 Introduction

Bi-gon dancing is a variation on hexagon dancing. Hexagon dancing requires six couples instead of the four we normally have in square dancing; bi-gon dancing requires only two couples. Bi-gon dancing provides a way to dance regular sequences intended for eight people with only four people instead, without using phantoms. Bi-gon dancing can work on all symmetric sequences regardless of level, at least in theory.

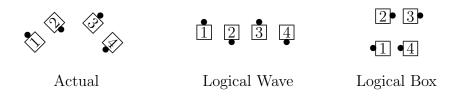
The purpose of this paper is to present a practical introduction to dancing bi-gons. I will take some simple calls, show how they are done, and let you know what you should be thinking about when you do them. Hopefully, after learning the calls in this paper, you will be able to figure out other calls on your own. The example calls in this paper are all C1 and below.

It is also possible to describe bi-gon dancing theoretically in terms of eliminating part of a square of eight people, and bending or warping the remaining setup so as to re-attach the edges where some people were eliminated. If that helps you, that is fine, but I won't be going over that approach in this paper.

# 2 Bent Lines and Boxes

The most important skill in bi-gon dancing is to be able to stand in a setup of four people that you can simultaneously see as both a bent line and a bent box. The setup below is both a right-hand wave and a right-hand box.

### Example 1. Bent Line and Box



You will be in this setup whenever a normal square with eight people would have parallel right hand waves. Of course, in a normal square, each person would have some dancers in their wave and different dancers in their box. You will have the same people in each setup, but you will be working with them in a different way.

Think about doing simple, non-shape-changing wave calls in your bent wave, such as:

Swing Thru Trade the Wave Switch the Wave Mix Cross Roll to a Wave

Think about doing simple, non-shape-changing box calls in your bent box, such as:

Scoot Back Box Circulate Walk and Dodge, Chase Right Leads Run, Right and Left Thru

Throughout this paper, I will draw the bent line/box setup like the letter "V", at a 45 degree angle. Some dancers prefer to make the setup more curved, like the letter "U". Whichever you prefer, make sure you can successfully do both line calls and box calls.

# 3 Shape-Changers

Now let's talk about calls that would normally change the shape of the setup, such as Hinge. A normal square doing a Hinge would change the setup from, for example, waves parallel to head walls, to waves parallel to side walls. The analogous thing for bi-gon dancing is to change the orientation of the bent line/box, as follows:



The key to doing this call is for each miniwave to turn by precisely 90 degrees and the new centers to take hands. Note that when doing calls that are shape-changers, you do not work to the same set of spots you started on, you must work to the spots on the other orientation. If you are accustomed to thinking about which calls are shape-changers and which are not, you will have an advantage over others.

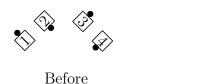
Think about the following calls, and observe how they change the orientation of the bent line/box:

1/4 Thru3/4 ThruScoot and WeaveRemakeSwing the FractionsBend the LineChain Down the LineExplodeExplode the WaveFollow your NeighborDixie Style to a Wave (from facing couples)

# 4 Eight person calls

So far we have focused mostly on four person calls. However, it is possible to do almost any eight person call as well. Note that when you have both a line and a box, you can tell both whether you are a center or end (by looking at the line) and whether you are a lead or trailer (by looking at the box). That means we know who are the ends facing in, ends facing out, centers facing in, centers facing out.

### Example 3. In Roll Circulate





After

From the setup above, do the following calls:

Out Roll Circulate All 8 Circulate (note centers stay centers, ends stay ends) Acey Deucey Trade Circulate Scatter Scoot

Contrast the following (trick question in some cases!):

Split Circulate vs. All 8 Circulate Scatter Scoot vs. Scoot Back Trade the Wave vs. Trade Circulate (from waves) Acey Deucey vs. All 8 Circulate

One question I sometimes get at this point is where the logical flagpole center of the square is. That is, if we were to do a Counter Rotate, what spot would we rotate around? The answer is that from the bent line/box, the flagpole center is between the two centers, indicated with a plus sign (+):

### Example 4. Bent Line and Box with Flagpole Center



Flagpole Center

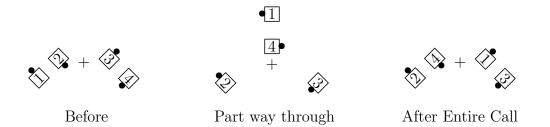
In bi-gon dancing, the flagpole center of the square is *not* necessarily the center of gravity of the four dancers. In fact, as we'll see later, there are some bi-gon setups where all four dancers are on the same side of the flagpole center.

# 5 Working in the Very Center

If you have danced hexagons before, you know that for any actions that rotate you about the very center of the square, you have to "underachieve", or not go as far. In bi-gons, it is the opposite, you have to "overachieve" and go twice as far. Trading in the very center means turning 360 degrees and coming back to where you started.

Let's consider the call Spin Chain Thru from right-hand waves. First, you turn 1/2 by the right. Then, as the centers are casting 3/4 by the left, you need to figure out which of those two centers are going to be the very center. You can tell by looking at the way the ends are bent. The center who is in the direction that the ends are bent is the very center. The flagpole center of the square is on that person's right hand. (A diagram is below.) Once you have identified the very center, that person has to "trade" in the middle, around the flagpole center of the square. But of course "trade" here means you turn 360 degrees, and return to the spot where you started. Then all the centers Cast Off 3/4 to complete the call.

### Example 5. Spin Chain Thru

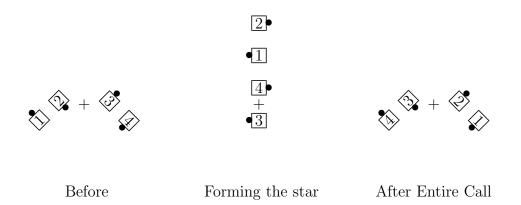


The middle picture above illustrates the setup both before and after you have done the Very Centers Trade. Note that if you are completely confused and forget to do this trade, or have the wrong person do it, it won't matter! Bi-gon dancing is harder than square dancing, but it is also more forgiving; many possible mistakes do not matter.

Once you have figured out Spin Chain Thru, try to do Spin Chain the Gears. This is the same principle, but it is harder because it is longer and requires turning a distorted star.

We can also do calls with star turns in the center, such as Motivate and Relay the Top. Let's try Relay the Top from right-hand waves. First, turn 1/2 by the right. Then, let's pause a minute. The centers are going to Cast Off 3/4 and the ends will move up, but we need to think about what each end is doing. If you are the end facing out, you need to move up and trade with someone. If you are the end facing in, you are going to be moving into a star. But your intuition about how far to move up may or may not be correct. Think about doing a 1/2 circulate, going half of the way to where the other end is. The result is shown in the middle diagram below.

### Example 6. Relay the Top



Now we have a setup that almost looks like a wave of four people, but it is not really a wave. Logically, it is a star (of 2 people) in the center and a miniwave on the outside. The flagpole center of the square is in the middle of that star. Note that there are three people on one side of the flagpole center and one person on the other. Make sure you know where the center of your square is, and whether you are doing the star turn or trade.

The star normally goes 1/4 on Relay the Top, but you have to turn it 1/2 since we go twice as far. Outsides Trade. Those who meet Cast Off 3/4 and others move up. Note that "Star Turn" and "Outsides Trade" produce the same results, even though they are logically quite different. So, if you forget which part you are doing, you will likely end up correct anyway, as long as the caller does not modify the star turn amount.

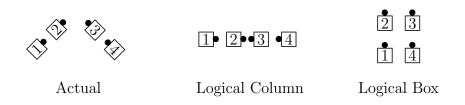
At the completion of the call, make sure you go back to the correct orientation. It is best if the new ends control the orientation of the resulting setup. The end who moved out of the star should become the end facing out. The end who traded and moved up should become the end facing in.

When you understand Relay the Top, try doing a Motivate. It is similar but note that the star has to turn 360 degrees (twice the usual amount).

# 6 Column Calls

So far, we have talked about setups that could be either lines or boxes. It is also possible to be in setups that could be either columns or boxes.

Example 7. Bent Column and Box



Looking at your column, you could do a Double Pass Thru. Looking at your box, you could do a Leads Trade.

We can also make a right-hand column. Think about doing a Column Circulate from the setup below. Note that #1 in the column must go around the corner to #4. If you are #3in the column, just follow the back of the person in front of you.

### Example 8. Column Circulate





After

Here are some other calls to do from column setups:

Split Circulate Walk and Dodge, then Trade By Pass to the Center Centers Pass Thru, then Eight Chain n Rotary Spin Pass and Roll Pass and Roll Your Neighbor

Track 2 is a fun but hard call. It is best if you think of it the following way: Tandem Partner Trade, Centers Pass Thru, all Touch. Make sure that you end on the correct orientation.

#### Example 9. Track 2







Before

After Tandem Partner Trade

After Entire Call

Once you are comfortable with columns in general, practice going back and forth quickly between waves and columns. From right hand waves, do a Recycle. Note that Recycle changes shape and therefore changes the bi-gon orientation. After the Recycle, trying doing another call that takes you back to waves, such as Swing Thru.

### Example 10. Recycle, Swing Thru



In practice, it is difficult to make the "After Recycle" setup at full dance speed. Some dancers will just make facing couples at this point, announce which people are centers and which are ends, and go back to the bent line/box setup as soon as is practical. Note that dancers #1 and #2 know they will be ends of the column after the Recycle because dancer #1 is an end facing out.

When you are comfortable with this example, try the following calls:

From waves or lines: Step and Fold Ah So Crossfire

From columns: Peel Off Peel and Trail Split Recycle

Of course, box calls such Peel and Trail can also be done from waves, producing a tidal wave. Tidal waves will be covered in a later section.

# 7 Diamonds

From a bent wave/box, think about doing the call Switch to a Diamond. This will produce a Bent Diamond, as follows:

Example 11. Switch to a Diamond



The "After" picture is intended to carefully illustrate where all the real dancers stand relative to the center of the set. Note that Dancer 4, who was originally an end facing in, must become a very center, and must have his or her left hand in to the very center. Dancers 2 and 3, the points of the diamond, are farther away from the center of the square.

As with the bent line/box setup, there are two setups you must be able to see here. One is the bent diamond. Make sure you can see how to do a Diamond Circulate: follow a back, and if you start in a right-hand diamond, make sure you end in a right-hand diamond.

In addition to seeing the bent diamond, you should also see that the ends are in Tandem with each other. They could do Ends Zoom, or Ends Circulate (just as they would from the bent line/box setup).

From the bent diamond setup, think about doing the following calls:

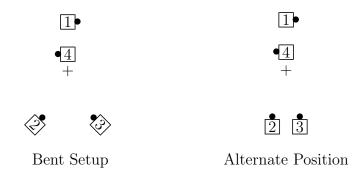
Diamond Circulate 6x2 Acey Deucey Acey Deucey Points Zoom Diamond Chain Thru Inpoint Triangle Circulate Outpoint Triangle Circulate Flip the Diamond Cut the Diamond

On 6x2 Acey Deucey and Diamond Chain Thru, remember that those who normally trade in the center must go 360 degrees.

# 8 1/4 Tags and I's

Once you have a bi-gon diamond setup, you can produce a 1/4 Tag by having the points Face In. Usually the outsides also adjust to be closer together than they are in diamonds. In the diagram below, the first picture shows the setup you might assume from the discussion on diamonds, and the one I will use when describing calls in this paper. The second picture shows where the bi-gon dancers I know actually stand in practice. They find it more comfortable to take hands when they are a couple with someone.

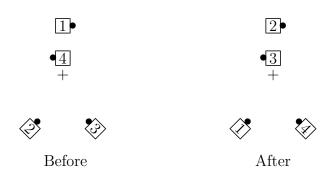
## Example 12. Bi-gon 1/4 Tag



Regardless of exactly where you stand, you should be able to see a bent single 1/4 tag setup, and you should be able to see that the outsides are as couples. Make sure you know where the flagpole center of the square is.

Let's try to do a Ping Pong Circulate. Those in the wave will essentially Jaywalk (around the corner) and then Trade with each other, ending on the 1/4 Tag spots. Those on the outside will follow a back into the center.

## Example 13. Ping Pong Circulate

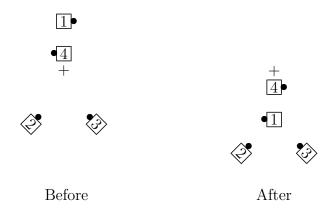


See if you can do the following calls:

Swing and Circle 1/4 Scoot Back Scoot and Little Scoot and Plenty (a beautiful call!) Chain Reaction Note that for all the Counter Rotates around the outside (such as in Scoot and Little/Plenty, and for one person in Chain Reaction), you must go twice as far as usual (180 degrees instead of 90 degrees).

Now let's talk about one more similar setup. From a 1/4 Tag, have the centers Lock It. To do this, they must move 180 degrees around the flagpole center, and meet with the same hands (i.e. right hand waves go to right hand waves). Also, they will force the ends out a little bit as they change shape.

## Example 14. Centers Lock It



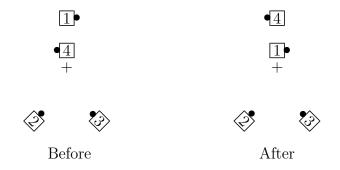
The result is often called an "I" or "bone" setup. Make sure you can tell the difference between an I-setup and a 1/4 tag. In the I-setup, all four dancers are on the same side of the flagpole center.

Once you get comfortable with 1/4 tags and I's, try having the centers do the following calls:

Fan the Top (like Lock It, but very centers go a long way) Spin the Top Swing Thru

Centers Trade the Wave is a tricky call. Normally, you go 1/2 way around the flagpole center on a Centers Trade the Wave. In bi-gons, you must go 360 degrees, and end up with the opposite hand:

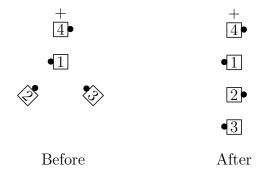
### Example 15. Centers Trade the Wave



## 9 Tidal Waves

From an I-setup, have the outsides Hinge to produce a tidal wave. The tidal wave is different from the bi-gon setups we have seen so far in that it does not look bent. The setup will look like a normal wave of four, but all four dancers will be on the same side of the square.

### Example 16. Outsides Hinge, Creating Tidal Wave



From tidal waves, think about the following calls.

Grand Swing Thru Counter Rotate (Note you go 180 degrees, pivot around flagpole center) Concentric Recycle (and other Concentric calls)

Practice going back and forth between parallel waves (the bent line/box) and a tidal wave by doing calls such as Lock It and Spin the Top. Make sure that when you go into a tidal wave, you know where the flagpole center is. Make sure that when you go into parallel waves, you have bent your line/box setup appropriately.

Once you are comfortable with tidal waves, you will probably be fine with point-to-point

diamonds. They are also completely on one side of the flagpole center and do not look distorted.

# 10 Getting Started from a Squared Set

You now know enough to do a wide range of sequences, except for the problem of how to start from a squared set. I have deliberately postponed teaching this, because I think it is the hardest part of bi-gon dancing.

Why are squared sets hard? First, usually one couple or the other has to do something in the center of the square, going twice as far as usual since it is bi-gons, and having only two people to work with instead of four. This can be quite difficult. Second, after doing some hard call in the center, the active couple has to begin working with the inactive couple, which often involves changing shapes quickly. It will take some practice to get accustomed to the various ways that callers start sequences and how those are danced in bi-gons.

To get started, we must first be able to identify heads and sides. There are only two couples. Usually they square up in the positions we would normally call heads. The couple closer to the caller is the Head Couple and the couple closer to the rear of the hall is the Side Couple.

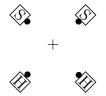
### Example 17. Squared Set



### Caller is here

While most people dancing bi-gons tend to start on squared set spots as shown above, you may find it more helpful to view it as a "bent squared set", as follows:

### Example 18. Bent View of Squared Set

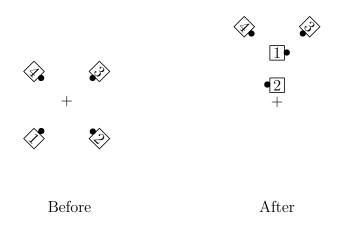


Caller is here

From this setup, think of yourself and your partner as simultaneously couples with each other and facing each other, just as we did with the bent line/box setup earlier. On any call where you would normally work with the other person across from you, such as Heads Pass Thru, or Pull By to start a Square Thru, etc, you will start with your partner instead.

For example, let's have the Heads go Forward and Back. Step forward into the center, turn slightly towards your partner, tap your outside hands, and back away. Think of yourselves as going past the center of the square to do this and slapping hands in front of the sides. In fact, you could Step to a Wave with your partner and produce an I-setup, which we saw earlier.

### Example 19. Heads Touch

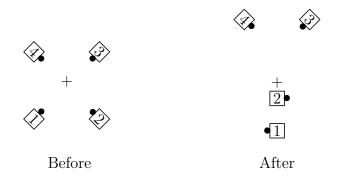


The key on this call is to make sure you go past the flagpole center of the square, and finish near the inactive couples. Make an I-setup, not a 1/4 tag. Keep track of where the very center is.

From here, do a Heads Swing Thru. Don't forget that someone has to go 360 degrees by the left in the center.

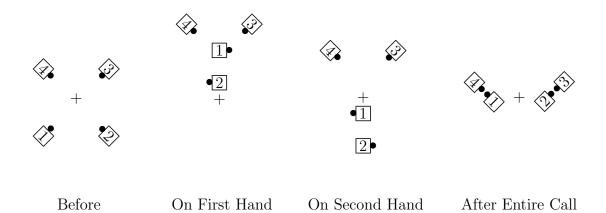
Pass the Ocean is an interesting call from a squared set. You might find it helpful to think of Heads Pass the Ocean as Heads Touch followed by Heads Lock it. Again, keep track of the very center of the square. After Heads Pass the Ocean, the Head Couple will be on the opposite side of the square from the Side Couple. This setup is 1/4 tag, which is different from an I.

Example 20. Heads Pass the Ocean



Another call frequently used from a squared set is Square Thru. This is hard to do well, because you have to go a long way in the center in very little time. The first hand of Heads Square Thru is similar to Heads Touch, going past the center. Each following hand of the Square Thru is similar to Centers Lock It and Spread, that is, taking the opposite hand each time, but going 180 degrees around in the center. Heads Square Thru 2 or 4 will end facing the Side Couple.

### Example 21. Heads Square Thru 2



Another common way to start a sequence is Heads Slide Thru. Heads go Forward and don't come back. Slide Thru with your partner and end in Tandem with the sides.

### Example 22. Heads Slide Thru



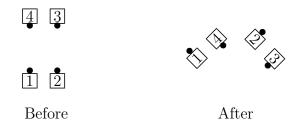
See if you can figure out the following calls from a squared set:

Heads Split Square Thru (start with Heads Touch, if it helps) Heads Split Dixie Style Heads Pass the Sea Heads Spin the Top Heads Fan the Top Heads Pass In Heads Pass Out Head Ladies Chain (yes, you come back to where you started!) Heads Flutterwheel (yes, the girls have a long way to go!) Heads Right and Left Thru (yes, you come back to where you started) Heads Dixie Style to a Wave Heads Dixie Sashay (yes, you go 360 degrees on the Slither)

One more call that is sometimes used from a squared set is Lead Right. Recall that on say, Heads Lead Right, the head couples start moving to the right, and end up facing the next side couple they see. So, just do that, although of course you will have to go further around the square than you are used to. You will end up facing the Side Couple. If you want to be precise, you should stay to the right side of the very center as you do this (almost like Veer Right and then Veer Left).

Now suppose the next call requires you to step to a wave with the outsides. It is important that you form a bent line/box on the correct orientation. If the sides are facing at a 45 degree angle (as in the "bent squared set" I have been using here), you will find it natural to do the Step to a Wave correctly. Another way to make sure you get the bent setup correct is to remember the heads were in the center, so after stepping to a wave, the heads must be leads. Bend the wave by making the people who were previously centers become leads of the bent box.

### Example 23. Heads Lead Right and Step to a Wave



Now see if you can figure out the following calls from a squared set:

Heads Lead Left Heads Pair Off Heads Wheel Thru Heads Wheel Fan Thru

Hint: These calls all have similar results! The traffic pattern is slightly different, but you should end up facing the Side Couple in all cases.

# 11 Exercises

Here are some other calls that are worth thinking about. I leave them as exercises for the reader.

Relay the Deucey Spin Chain and Exchange the Gears Grand Square Load the Boat Coordinate Cloverleaf Centers Square Chain Thru or Square Chain the Top All 4 Couples calls, such as Right and Left Thru Horseshoe Turn Transfer the Column Checkmate the Column Scoot Chain Thru Trade Circulate from two-faced lines Mini Busy Cast a Shadow (hard) Relay the Shadow (hard)

You might also want to think about the following setups:

Hourglass Galaxy Blocks C1 Phantoms Thar Alamo Ring

The way I think about these is to think of a very simple call that will create them from a setup that I know, and do that call very carefully. For example, to create an Hourglass, start from diamonds (a bi-gon bent diamond) and have the very centers Hinge (going 180 degrees). Keep track of where the flagpole center of the square is. To create a Galaxy, start from parallel waves (a bent line/box) and have the Ends 1/2 Circulate.

# 12 Final Remarks

I hope that I have given you enough examples to understand how bi-gon dancing works and to help you have fun with it. It will take some practice to get good at it. When people dance bi-gons and do not succeed, it is usually because they have not kept the bent line/box setup precise enough. Eventually their setup looks like a normal wave or normal box, and they are unable to do calls that require the other setup. If you learn nothing else from this lesson, I hope you learn to see the bent line/box setup and keep it precise.

# 13 Acknowledgments

I would like to thank Chris Hescock, Brian Hanechak, and others at Tech Squares for introducing me to bi-gons and giving me a chance to practice dancing them. Clark Baker, Brian Hanechak, Sola Grantham, and Stephen Gildea provided useful comments on an earlier draft of this paper.