

A Generalized Chicken Plucker

With Application to Progressive Squares

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(DRAFT – not for general distribution)

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The “chicken plucker” module can be used as a framework for hoedowns by incorporating zeros and equivalences. It has its origins in some traditional dance sequences. An extension of the “chicken plucker” module can be used to call to any regular or irregular arrangement of progressive squares. Examples are given, and for those so inclined a mathematical discussion is provided in an appendix.

A Generalized Chicken Plucker

From a 0-box the classic chicken plucker module is:

right and left thru; dive thru, pass thru; right and left thru; dive thru, pass thru

It is a zero and can be used as a frame work for a hoedown by the use of equivalents and interspersed zeros.

There are two ways to extend it:

- 1) Use other call sequences in place of *dive thru, pass thru*
- 2) Apply it to other formations than a box.

The **generalized chicken plucker** is *right and left thru*, then **any sequence of special calls**, then *right and left thru* again, followed by that *sequence in the reverse order*.

What are these special calls? They are calls similar to *dive thru, pass thru* that

- preserve the formation and
- produce a zero calling: *right and left thru; special call; right and left thru; special call*

For example, *Pass thru, trade by* is special because it preserves a box formation and *right and left thru; pass thru, trade by; right and left thru; pass thru, trade by* is a zero.

Similarly *Ladies chain* is special because it preserves a box formation and *right and left thru; ladies chain; right and left thru; ladies chain* is a zero.

Likewise you can check that *Box the gnat* is also special in this sense. By using these calls we get the following example modules.

¹ My interest in this was stimulated by discussions with Jerry Jestin and Brian Hotchkies, both professional callers adept at calling progressive squares.

Example² – starting in 0-box

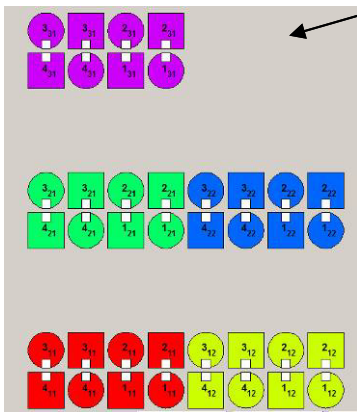
<i>Right and left thru;</i>	<i>Right and left thru;</i>
<i>Pass thru, trade by;</i>	<i>Pass thru, trade by;</i>
<i>Ladies chain;</i>	<i>Reverse Flutter Wheel;</i>
<i>Pass thru, trade by;</i>	<i>Veer Right, Veer Left, trade by;</i>
<i>Box the gnat;</i>	<i>Box the gnat;</i>
<i>Right and left thru;</i>	<i>Pass thru, partner trade;</i>
<i>Box the gnat;</i>	<i>Box the gnat;</i>
<i>Pass thru, trade by;</i>	<i>Right pull by, trade by;</i>
<i>Ladies chain;</i>	<i>Reverse Flutter wheel;</i>
<i>Pass thru, trade by;</i>	<i>Dive thru, pass thru;</i>

A more complete list of special calls is listed later. Other formations can be used for the generalized chicken plucker.

Example – starting in 0-line

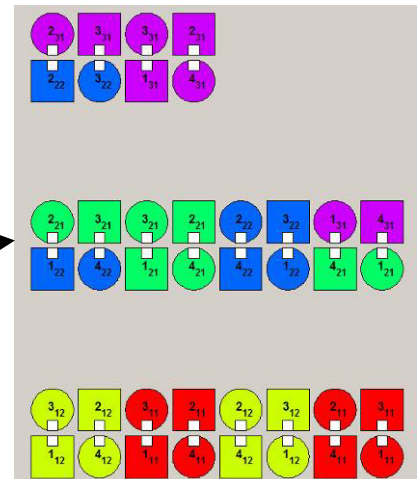
<i>Right and left thru;</i>	<i>Right and left thru;</i>
<i>Pass thru, tag the line in;</i>	<i>Pass thru, tag the line in;</i>
<i>Box the gnat;</i>	<i>Box the gnat</i>
<i>Shift boys anticlockwise;</i>	<i>Pass the ocean, recycle, veer left, partner trade, centers circulate, bend the line</i>
<i>Right and left thru;</i>	<i>Pass thru, partner trade;</i>
<i>Shift boys anticlockwise;</i>	<i>Boys step to wave, swing thru, back up</i>
<i>Box the gnat;</i>	<i>Pass thru, U turn back;</i>
<i>Pass thru, tag the line in;</i>	<i>Pass thru, tag the line in;</i>

Example – any progressive square setup³ with squares into 0-lines (e.g. *sides lead right circle to a line*). For example 5 squares, where 3 squares are down the left side of the hall, and 2 squares down the right.



Right and left thru
Pass thru move on with a pass thru or partner trade
Pass thru bend the line
Two ladies chain
Pass thru move on with a pass thru or partner trade
Pass thru bend the line
Pass thru move on with a pass thru or partner trade

Right and left thru
Pass thru move on with a pass thru or partner trade
Pass thru bend the line
Pass thru move on with a pass thru or partner trade
Two ladies chain
Pass thru bend the line



² The first column is a literal example, but the calls to the right in blue are equivalents that would flow better.

³ Gene Trimmer's book (pg. 52 and 53) discusses such setup. He mentions how to call ladies chains in progressive squares for certain rectangular setups. This generalization makes this precise.

A Larger List of Special Calls

These first ones in black are two couple calls⁴, so apply to any of the formations illustrated in the examples

- right and left thru
- ladies chain = reverse flutter wheel
- flutter wheel
- box the gnat
- half sashay

These next two calls are appropriate for a box formation

- Dive thru, (centers) pass thru = pass to the center, centers pass thru
- Pass thru, trade by

The previous two calls are equivalent, but pass thru, trade by makes sense for lines and progressive squares in lines. An important observation is that *trade by* is really a *circulate*, i.e. it means for those who can (the centers to *pass thru*) and the others to *partner trade* to face back into the formation. So for lines it could be interpreted *pass thru, partner trade*. More importantly when working with progressive squares (in lines), one way the dancers are moved from square to square is by getting them to *pass thru*, and then *pass thru* again with the people they see from adjoining square with the proviso, that if they see no one, they must *partner trade* to face back in. As this is very important, the caller must make sure all dancers understand this, and it is usual to give the call a special name such as:

- **Pass thru, move on**

So the previous call and those that follow make sense for lines and more importantly are used in calling progressive squares in lines. Often in practice with progressive squares only the previous call and the next are used, with simple zeros being called each time on the resultant lines.

- pass thru, bend the line
- pass thru, tag the line in
- four ladies chain (back to facing lines) = pto, center circ 2, recycle, sweep 1/4
- (boys shift anticlockwise) boys step to wave, swing thru, back up OR
Left touch ¼, circulate, girls run, slide thru OR
pass the ocean, recycle, veer left, partner trade, centers circulate, bend the line
OR pass the ocean, ends circ, recycle, sweep 1/4

⁴ There are 10 two couple calls that are special. These calls in black, the identity (e.g. Dosido), and the red calls (at the end of this list) and their cubes. However working in lines, many more asymmetric calls exist (e.g. for lines across the hall), the couples on the left and right side of the formation could be directed to do different two couples calls from these 10.

- (girls shift anticlockwise) girls step to left hand wave, swing thru, back up OR touch $\frac{1}{4}$, circulate, boys run, slide thru OR pass the ocean, recycle, veer left, partner trade, ends circulate, bend the line
- (all shift anticlockwise) touch $\frac{1}{4}$, circulate two times, trade and face right OR pass the ocean, recycle, veer left, partner trade, circulate, bend the line

These next two are two couple calls⁵ and are very interesting to think about, but would require a very special group of good dancers at maybe A level. These are asymmetric calls that fit the criterion of being special. They are easy and danceable, but require very good position awareness of the dancers. If used in progressive squares, it is very easy to get intermediate squares in the dance that have all men or all women in this. Of course this will be novelty for the dancers, but it will mean that all calls need to be the non-sexist versions.

This first one when called from normal lines gets boys opposite girls. It could be denoted a *square root of box the gnat* as executed twice is equivalent to Box the Gnat.

- (Boys versus Girls)(Only from lines across the hall)
Far Beaus and Near Belles pass thru, and run around the in facers

If the left side couples do the above and the right sides do the cube it produces a symmetric version which is equivalent to:

- Four ladies chain; touch $\frac{1}{4}$, circulate twice, trade and face right (=All Shift); Centers Half Sashay = center pass thru, centers run around ends

This one when called from normal lines gets the boys on the callers left side of the box. It could be denoted a *square root of half sashay* as executed twice is equivalent to half sashay.

- (Only from lines across the hall) Right and left thru, only those facing me half sashay

If the left side couples do the above and the right sides do the cube it produces a symmetric version which is equivalent to:

- Boys step to wave, swing thru, back out (=Beaus shift right); Centers Half Sashay, Beaus shift left = circle right $\frac{3}{4}$, ends $\frac{1}{2}$ sashay, circle left $\frac{1}{4}$

⁵ Variations of these are common in contra dancing where calls can be directed to couples #1 or #2. The first below is essentially having #1 cross over, go down the outside, come back as a couple and cast off around #2 couple. The second could be right and left thru, and couple #1 half sashay.

References

Gene Trimmer – Specialized Squares and Crowd Pleasers

Appendix – Classic Dances

Little Red Hen by George Perry

Sets in Order Year Book of Square Dancing No. One (1956) page 128.

1st and 3rd go forward and back
Forward again, pass Thru, U-turn back
Box the Gnat across from you
Face the sides, right and left Thru
Duck right back to the middle of the pen
Box the Gnat with your little red hen
Face the middle
Right and left thru and hear me say
Face to the middle, do a half sashay
Box the Gnat across from you
Face the sides, then right and left Thru
Duck right back to the middle of the pen
Box the Gnat with your little red hen
Face the middle
Right and left thru across the land
Then trail thru to a left allemande.

Chicken Plucker by Bill Shymkus (Cal Campbell's version)

Sets in Order Year Book of Square and Round Dancing No. Two (1958) page 12.

Bill Shymkus probably got inspired by the "Little Red Hen"

First and third Bow and Swing, go up to the middle and back again
Forward again and Pass Thru. Separate around one
Into the middle, Pass Thru and Circle Four, half way around and Dive Thru.
Pass Thru, and a Right and Left Thru, turn your girl and you Dive Thru
Pass Thru, and a Right and Left Thru, turn your girl as you always do
Dive to the middle and a Right and Left Thru
Turn your Pretty Girl and you Circle up Four
Half way around to the rhythm of the band
Pass Thru, Left Allemande.

Appendix – Mathematical Results

Generalized Chicken Plucker

If M stands for a sequence of calls with $rxrx$ a zero, and W is the reverse sequence made of the calls in the opposite order, then $rMrW$ is a zero.

Theorem $rMrW = I$ (Also $MrWr = I$)

Ben Martin (UC math dept) observation about such moves x is

$$rxrx = I \text{ so } rxr = x^{-1}$$

$$\text{example: } M = xyz \quad W = zyx$$

$$rMr = rxr \text{ } ryr \text{ } rzr = x^{-1} y^{-1} z^{-1} = W^{-1}$$

$$\text{so } rMrW = W^{-1}W = I$$