The 3 By 1 Concept

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The phrases "3 By 1" and "1 By 3" have been used to mean three people do one part of a call or work together, and one person does the other part of the call or works alone. I would like to define these concepts more precisely by building on the existing 3 By 3 [1] and Single [2] Concepts. The basic idea is that the groups of 3 are working 3 By 3 and the other people are working Single. This definition accurately describes previously-used calls such as 3 By 1 Checkmate (and even 3 By 1 Transfer!) and allows the 3 By 1 concept to be applied to many other calls.

Definition

To create the 3 By 1 or 1 By 3 version of a call, start with the 3 By 3 version and replace half of the groups of 3 with single dancers by eliminating the ends of those groups and keeping only the center dancers. Then compress the resulting starting and ending setups as much as possible while keeping the groups of 3 intact (i.e. compress a 2×6 to a 2×4, compress a 1×12 to a 1×8, but do not compress a 3×4).

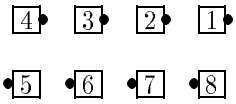
This definition implies that the people working Single will actually be working as if they were the center person of a group of three doing a 3 By 3 call. More specifically, any 3 By 1 call can be danced by the following method: (1) identify the people who are not in the groups of 3, (2) add 1 phantom on each side of these dancers, expanding the setup if necessary (e.g. expanding a 2×4 to a 2×6), (3) dance the entire call 3 By 3, and (4) eliminate the phantoms, compressing the setup if possible. While explicitly adding phantoms can be useful as a learning tool and some of the examples in this paper will be illustrated with this method, I do not intend that this concept be danced this way. Instead, I expect the calls to be danced in one smooth, flowing motion, just as calls such as 3 By 1 Checkmate are currently danced.

In general, it is possible to create two different calls with this definition by changing which dancers are working Single. One of these calls can be named 3 By 1 and the other 1 By 3. The choice of names is discussed in more detail in a later section. For now, just assume the naming conventions that you already know for column calls such as 3 By 1 Checkmate and 3 By 1 Transfer.

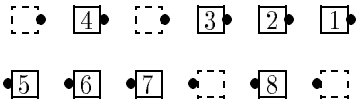
Examples

Next let's illustrate the definition by considering some calls you already know how to do.

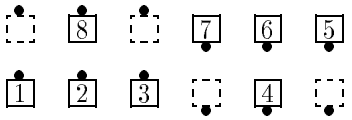
3 By 1 Checkmate:



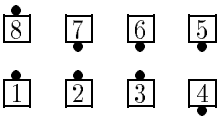
before



after adding phantoms

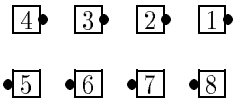


after 3 By 3 Checkmate

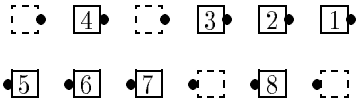


after entire call

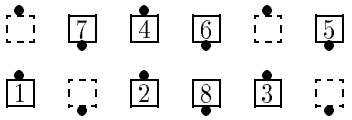
3 By 1 Transfer:



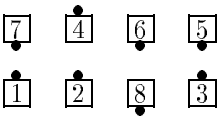
before



after adding phantoms



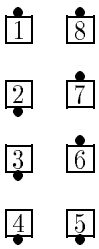
after 3 By 3 Transfer



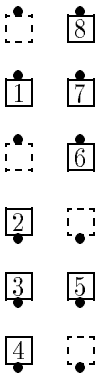
after entire call

Note that on 3 By 1 Checkmate, it did not matter on which side of dancers #4 and #8 we added the phantoms, because it only changes the positions of those dancers relative to their phantoms, and not relative to the other real people. However, on 3 By 1 Transfer, it *is* necessary to have dancers #4 and #8 be the centers of their groups of 3 for them to finish in the correct ending position.

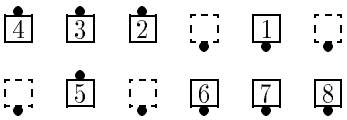
Here is an example from a different setup—3 By 1 Turnaway:



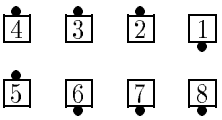
before



after adding phantoms



after 3 By 3 Turnaway



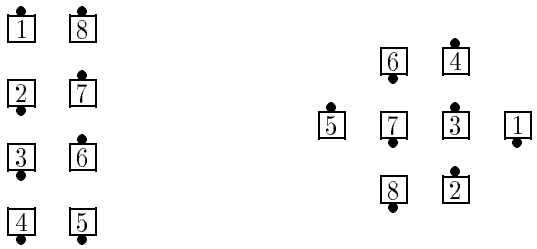
after entire call

On the calls we have shown so far, the ending setup of the 3 By 3 call was a 2×6 setup so it was easy to compress the setup to a 2×4 setup by eliminating phantoms. Some 3 By 3 calls start in a 2×6 and end in a 3×4 setup and thus it is not possible to compress the ending setup (and still keep the groups of 3 intact). Thus, these 3 By 1 calls simply end in the 3×4 setup. Here are some examples:

3 By 1 Link Up:

before after

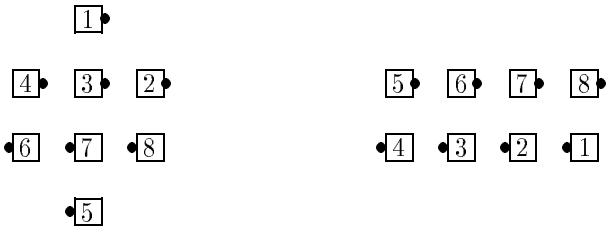
3 By 1 Track 2:



before after

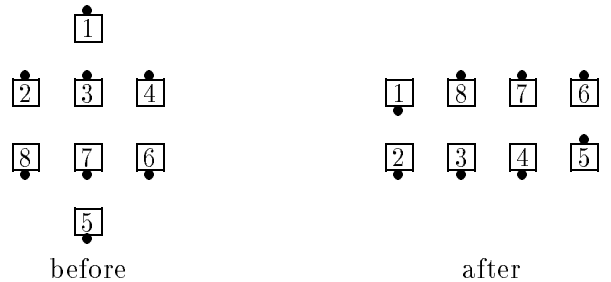
As you might expect, there are also calls that start in a 3×4 but end in a 2×4. The 3×4 must be chosen so that some groups of 3 contain 3 people and the other groups of 3 contain 1 real person and 2 phantoms. Here are some examples:

3 By 1 Presto:



before after

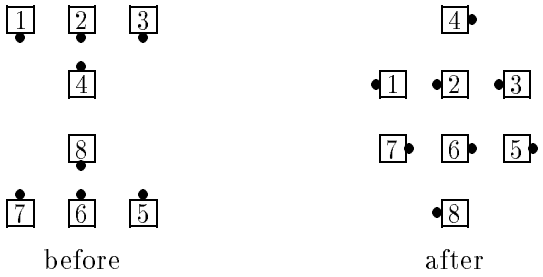
3 By 1 Polly Wally:



before after

There are also calls that start and end in a 3×4 setup, but these are less interesting because they are the same doing the call 3 By 3. Callers may prefer to say 3 By 1 in these situations (rather than "12 Matrix, 3 By 3") and this is fine.

3 By 1 Rotary Spin:

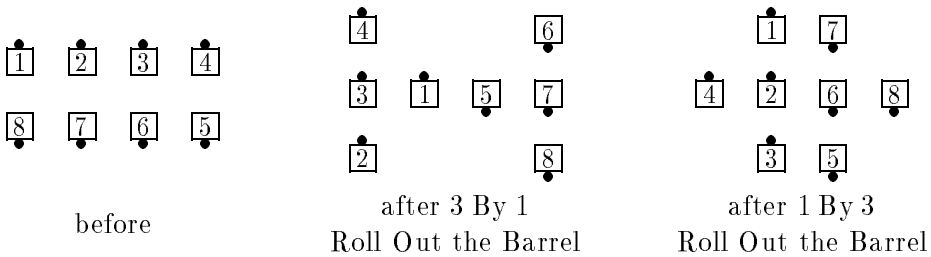


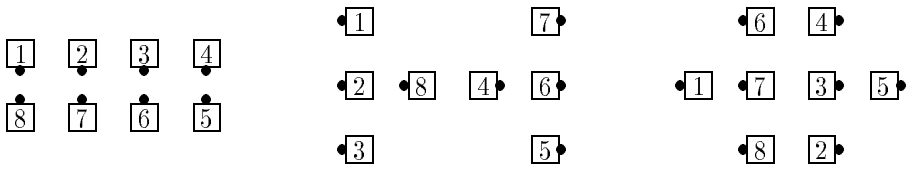
Naming Conventions

In general, there are two ways you can replace half the groups of 3 with single dancers (assuming symmetric setups), and one of these calls can be named 3 By 1 and the other 1 By 3. On many calls, the naming convention is not essential because the dancers can identify the groups of 3 by looking at the starting setup and remembering that everyone in a group of 3 must start facing the same way. However, on calls done from normal columns or from lines facing one direction, the groups can be formed in two different ways, and a naming convention is essential.

For calls done from normal columns, it is commonly accepted that the terminology "M By N" means that M people are doing the leaders' part (i.e. the parts of #1 and #2 in the column) of the call and N people are doing the trailers' part. This rule can also be used from 1×8 columns where everybody on one side of the square is facing the same direction. For calls done from a line of 4 facing one direction (including lines facing in, lines facing out and some lines of 8), common practice is not clear-cut but I suggest that M people (i.e. the first number given) do the belles' part and N people do the beaus' part. Since most of the calls which can be done 3 By 1 from these setups either have everyone going to the right or the belles stepping in front of the beaus, this convention is closer to the leader/trailer rule than the opposite convention. Also, the few calls in this category that have already been used have followed this naming convention.

Here are some examples:





before | after 3 By 1 Mix the Line | after 1 By 3 Mix the Line

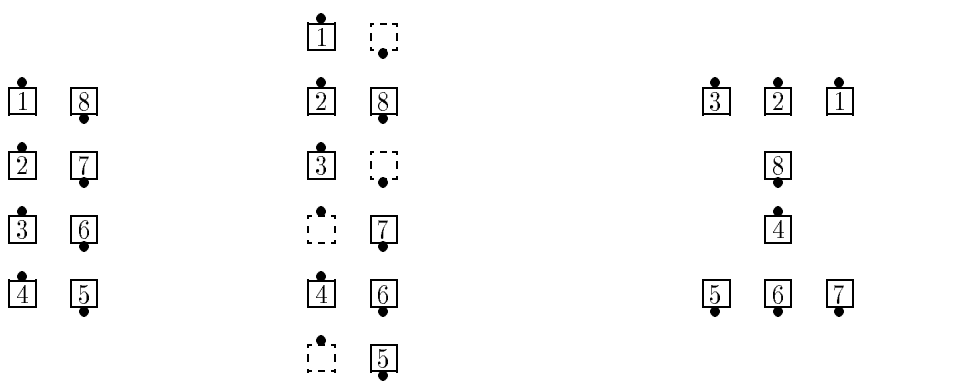
There are probably some other setups I have not considered; in those cases the caller will have to choose facing directions to make the call unambiguous or find a method of designating the grouping (e.g. "3 ends By 1 center").

Four-person calls

The definition proposed above works nicely with 8-person calls and agrees with current practice on those calls that have already been used. Unfortunately, the situation is not as simple with 4-person calls because the 3 By 1 concept has been used differently with these calls in the past. Specifically, one would expect that since the 3 By 1 version of an 8-person call is an 8-person call, the 3 By 1 version of a 4-person call would be a 4-person call. However, this has not always been true; for example, Walk and Dodge is a 4-person call, but the old call "3 By 1 Walk and Dodge" is an 8-person call.

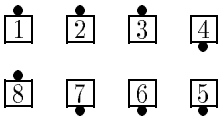
It is important to recognize that the 3 By 1 concept defined here involves replacing *two* people with a group of 3, or with a single dancer. The old call "3 By 1 Walk and Dodge" involves replacing *one* person with a group of 3. The problem with this approach is that in general, the three people do not know whether to work Solidly, Twosomely, or something else. They can figure out "3 By 1 Walk and Dodge" only because all reasonable interpretations come out equivalent to each other, but they wouldn't be sure how to do 3 By 1 Scoot Back, 3 By 1 Chase Right, and many other calls. (Similar problems occur with 3 By 1 Diamonds—dancers have been taught how to do some specific calls but can't be sure how to do slight variations.) When the groups of three are replacing *two* dancers, they can keep the same relationship that the groups of 2 would have on the original call and there is no ambiguity.

With the 3 By 1 concept defined here, it *is* possible to do the call 3 By 1 Walk and Dodge, but it is not the same as the old call by this name. Rather, it works like this:

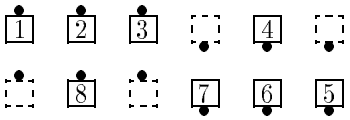


before | after adding phantoms | after 3 By 1 Walk and Dodge

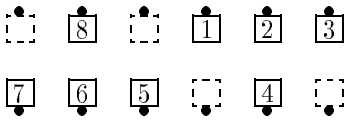
The old call "3 By 1 Walk and Dodge," can now be named 3 By 1 *As Couples* Walk and Dodge:



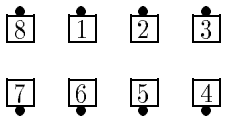
before



after adding phantoms

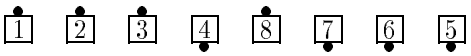


after 3 By 3 As Couples Walk and Dodge

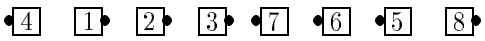


after entire call

Some callers have attempted to resolve the ambiguity discussed above by using concepts such as "Threesome-By-1" or "1 By Solid-of-3". This is fine, but everyone must recognize that these concepts are fundamentally different from the 3 By 1 concept defined here, since they involve replacing a single person (rather than 2) with groups of 3 or 1. Specifically, a call such as "Threesome-By-1 Swing and Mix" is the same as 3 By 1 *Couples Twosome* Swing and Mix. In general, you can think of "Threesome-By-1" as shorthand for 3 By 1 Twosome, and "1 By Solid-of-3" as shorthand for 3 By 1 As Couples or 3 By 1 Tandem. Alternatively, you can think of these concepts as completely different from the 3 By 1 concept defined here. Either way, make sure you understand the difference between these two calls:



before



after 3 By 1 Tag the Line

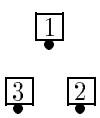
after Threesome-By-1 Tag the Line

The 2 By 1 Concept

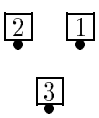
By analogy, the 2 By 1 Concept can be used to better define 6-person versions of 8-person calls. Column-of-6 or line-of-6 variations of a few calls have already been used, but these have not been very successful because dancers don't want to specifically memorize different rules for 6-person variations of different calls. By using the 2 By 1 or 1 By 2 terminology, 6-person variations of 8-person calls (or 3-person variations of 4-person calls) can be more useful. Here are some examples.

2 By 1 Wheel and Deal:

before



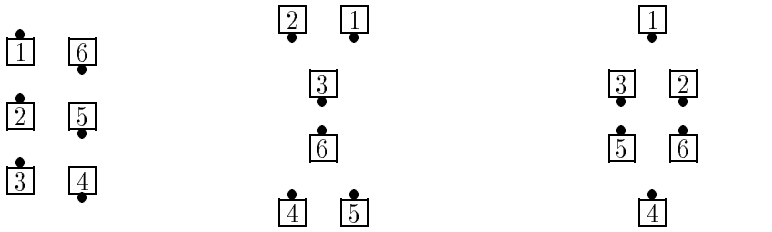
after 2 By 1 Wheel and Deal



after 1 By 2 Wheel and Deal

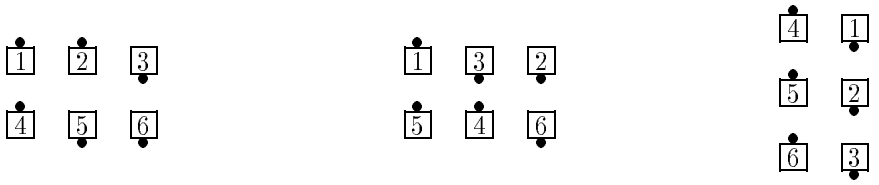
Isn't this much nicer than "Line of 3 Wheel and Deal"? The 2 By 1 concept allows you to easily use both variations.

2 By 1 Fancy:



before after 2 By 1 Fancy after 1 By 2 Fancy

2 By 1 Gee Whiz:



before 2 By 1 Gee Whiz before 1 By 2 Gee Whiz after either call

Summary

The 3 By 1 concept presented here is a generalization of the 3 By 3 and Single concepts that accurately describes many existing 3 By 1 calls. The definition also suggests many new 3 By 1 calls that have never been used before. The definition can also be generalized to other usages of M By N, such as 2 By 1.

When applied to 8-person calls, 3 By 1 is a natural extension to previously-used calls. When applied to 4-person calls, it must be used with care, since 3 By 1 has been applied differently to some 4-person calls in the past.

References

[1] Sue Curtis, "The 3 By 3 Concept," April 1991.

[2] Eric Brosius, "The Single Concept," June 1987.