

# Mental Floss

## Variations to test your brain

By Gene Fambrough

I am excited to have the opportunity to share one of my favorite clinic topics in the form of a virtual session for the 50th Anniversary of PASIC. I believe it will be beneficial to have a video record of the session in order to allow continued reference to this topic; as you can imagine, since we are testing our brains with this system, some of the concepts presented can seem dense at first – but that is the point!

It has been my experience that students will readily admit that mistakes in performances, rehearsals, or practice sessions occur mostly because of a lapse in concentration. We can develop our hands and literature to the point of perfection, only to get lost in the form or let our mind drift unintentionally. This virtual session aims to provide an approach to “train your brain” to help address these issues.

The idea of these challenges goes back several decades, and possibly further; Tom Float utilized many of these ideas 45 years ago. Different from the concept of “grid-ding,” which combines two or more elements in order to focus on physical dexterity (i.e., “chops”), this system is meant to be mentally challenging instead of physically challenging. Another significant difference is to avoid notation if possible; once the basic pattern and variation is understood, players should “think” their way through the exercise. It is this process that subsequently improves your mental awareness.

### EXPLANATION

We begin by using one of the most common exercises as our explanation and subsequent point of departure, the sixteenth-note accent pattern (4-2-1):



Understanding the construction of this exercise is important: 4 counts of each pattern (played one time), 2 counts of each pattern (played twice), and finally 1 count of each pattern (played 4 times). This is referred to as a “4-2-1” format and is commonly applied to other elements of drumming (timing, diddles, flams, rolls, etc.).



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Using this concept, there are six different variations to be applied (by increasing difficulty): Element, Count, Order, Structure, Sticking, and Metronome.

## ELEMENT VARIATION

The first variation we can apply is to change the element of the exercise; in this case, we'll add a second accent following the initial accent in each pattern:



With double accents as our new element, we then proceed with a 4-2-1 format.

Other examples of element variation include substituting diddles for accents (or 5-stroke rolls for double accents), adding flams on accents, or adding diddles before or after accents.

## COUNT VARIATION

We can also change the count structure of the exercise (i.e., how many repeats for each individual “thing”). Simply put, instead of the standard 4-2-1 format (which reinforces typical 4-bar phrase structure), we can use any other arrangement of repetitions and groups we desire. Examples include:

- 5 counts (1 x); 3 counts (3 x); 1 count (5 x)
- 4 counts (1 x); 3 counts (2 x); 2 counts (3 x); 1 count (4 x)
- 5 counts (1 x); 4 counts (1 x); 3 counts (1 x); 2 counts (1 x); 1 count (1 x)

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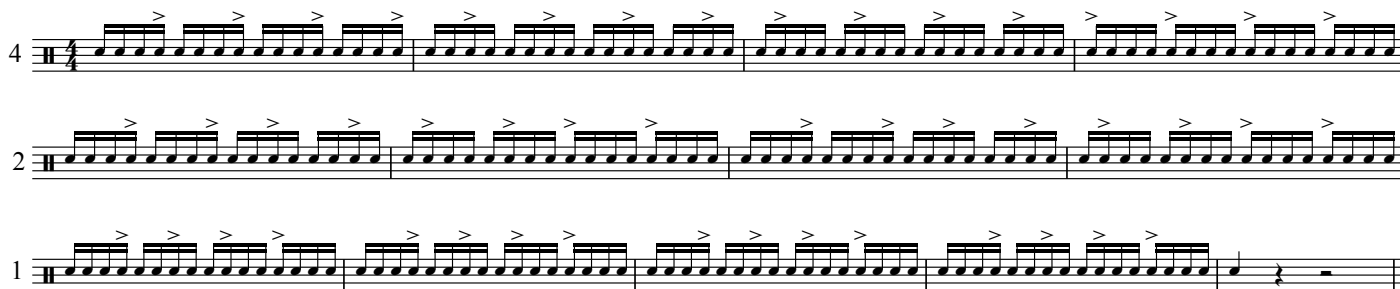
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## ORDER VARIATION

Continuing with the sixteenth-note accent pattern (using 4-2-1 for clarity), we can change the order of elements to create a new variation of the exercise. The most logical order variation is to play the exercise “backwards,” i.e., starting with the accent on the “a,” then the “&,” then “e,” and finally accents on downbeats:



The order of accents can be arranged in any way imaginable (think permutations for four mallets), and can create some interesting mental challenges as a result of how we normally arrange the accents. As an example, try shifting the accents by one sixteenth note (e - & - a - 1) and notice how your brain tries to adjust where each phrase begins.

## STRUCTURE VARIATION

In structure variation, we can change the structure to what is referred to as “forwards/backwards.” This is an alternation of the smaller sets (4’s, 2’s, 1’s) between forwards and backwards.

This subsequently opens up other interesting possibilities, such as creating longer patterns by interlacing forwards and backwards with each other, or even between sixteenth and triplet partials. More options become available by how you decide to relate the hand motion between sixteenth and triplet partials.

## OTHER VARIATIONS

The other types of variation that will be explained are sticking variations and metronome variations, each presenting their own sets of challenges. Due to the “rabbit hole” nature of this topic, the more you experiment the more you will discover. It is only limited by your imagination; there are no rules other than the ones you decide for yourself, and your success is determined by how well you follow those rules.

Fortunately for me (and unfortunately for some students), all of these variations can be combined to create an endless supply of material. Each time I revisit this concept (including for this article), I discover additional possibilities to test out and work through. It is my hope that after this session you can embrace the benefits of this method and realize the effectiveness of the “mental challenge” technique. With some thought, percussionists can apply this in other settings – drumset, keyboards, and marching percussion for starters – and help their students become lifelong learners.

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