



# ACCELERATING EARLY TECHNIQUE DEVELOPMENT WITH TRIPLE-CHANNEL LEARNING

Jonathan Sharp

There are three main senses, or channels, musicians can utilize to learn a technique or musical skill: visual (seeing), auditory (hearing), and kinesthetic (feeling). Often in music, and percussion in particular, we tend to put our focus on only one or two of these channels at a time. However, when acquiring a musical skill or learning a piece of music, balancing all three channels can help to improve potential and enhance performance. All one must do is consciously pay attention to as much of the visual, auditory, and kinesthetic feedback as possible while learning the skill or piece of music. This method of triple-channel learning, as created by percussionist and composer Michael Colgrass, is endorsed by many leading music educators, but still lacks widespread awareness. (McLaughlin, 41-46)

To illustrate this idea, take for example a beginning percussionist learning to play a free rebounding stroke on a drum. This is the most fundamental and important skill for any percussionist, and it is one of the first skills a percussionist develops. Here's the problem: most of the time, the beginner has little or no experience 'listening' to their body and working with their own biofeedback to develop new skills like this. And, what happens next? Frustration, and "giving up."

Let's break this skill down with triple-channel learning:

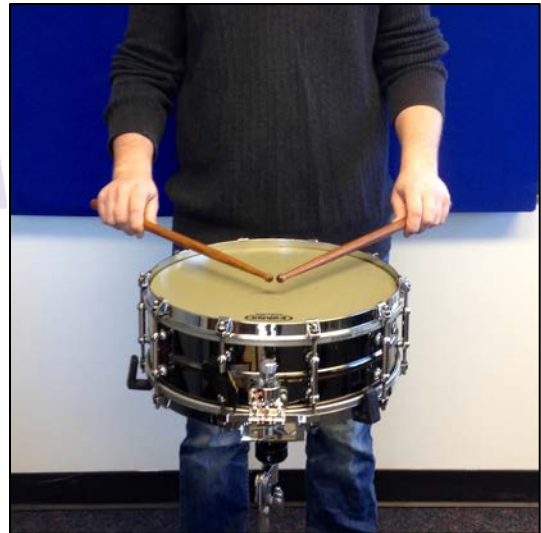
The intent is to move the stick so as to allow for a free, natural rebound off the drum. Because the player must hold on to the stick (we don't want to put an eye out), the fingers and hands must learn to follow and assist the stick through the natural rebound motion.

## Visual Channel

The player usually observes this process from his or her vantage point, a birds-eye view of the top of the hands. This allows the student to assess their beating spot, bead placement, and some of their hand architecture. The downside is that the student won't get a useful perspective on the majority of important stroke features.

Standing the student in front of a mirror will give them a horizontal view of their body and stroke. This allows the student to observe their wrist motion, stroke height, and to see how quickly they are allowing the stick to rebound (avoiding a down-stroke). Additionally, the student can visually compare their hands to make certain both hands are accomplishing the stroke in the exact same manner. If the student rotates their position and stands sideways to the mirror, they will be able to see another perspective of their stroke, especially how the fingers are holding and moving with the stick.

A supplement to the mirror would be to video-record the percussionist. This can be especially helpful when the student can watch in slow motion, observing every aspect of the stick motion between each note being played.



## Auditory Channel

While the visual feedback may suffice in developing the basic rebound stroke, other forms of feedback (auditory and kinesthetic) can further enhance the learning. By calling the percussionist's attention to the drum tone when a free rebounding stroke is played with a relaxed grip (the key to a free rebound), as compared to an inhibited rebounding stroke played with a tighter grip (that stops the rebound), the student will begin to process different and new information about the stroke. A resonant drum provides much greater auditory feedback than a practice pad. Further learning can be gained by listening for the pitch of the stick vibrating freely in the hand when the stroke is played as opposed to little or no pitch heard from the restricted vibrations of a stick played with too tight a grip. Furthermore, playing on a pad or even the floor enables one to hear the stick pitch feedback better than on a ringing drum.

## Kinesthetic Channel

Effective teaching in this channel can involve likening it to bouncing a ball. The analogy of bouncing a ball to make this basic percussion stroke establishes sensitivity and timing, and coordinates sensations in the body directly related to the free rebound of the stick off a drumhead. This is usually quite effective, because we anchored this new skill (the rebound stroke) to one they have already experienced (bouncing a ball).

Call the student's attention to the feel of the stick vibrating in the hand. Asking the student to close their eyes and feel the stick vibration shuts off the visual mode of the stroke and enhances the kinesthetic (and auditory) sense. The student can also explore the stick vibration on each finger and in every part of the hand to further the kinesthetic learning. Feeling the wrist motion, as it is likened to bouncing a ball, and paying attention to the feeling of the stroke and how the sound of the drum and pitch of the stick changes with slight alterations in grip greatly enhances the subtleties that accompany a free rebounding stroke and ultimately advances stick control.

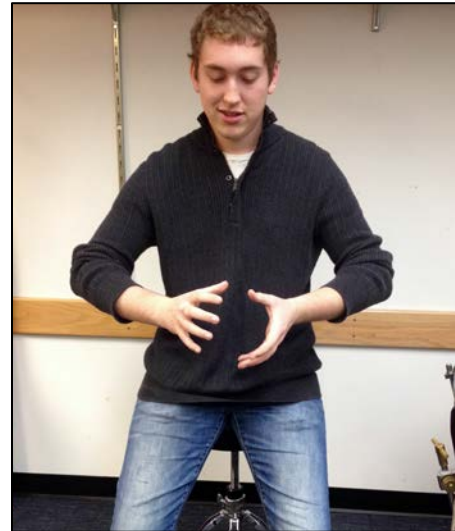
Simply playing both hands together at the same time in the same motion or stroke, often called "cloning", can further enhance triple-channel learning. The percussionist can also try "ghosting" or "air-drumming" one stroke as the other stick plays. This allows the non-dominant hand to learn a myriad of details about the skill from the dominant hand, beyond what could be learned with hands separately or analyzed and explained by the teacher. The effectiveness of the cloning method is supported by scientific research on brain symmetry and motor learning. (Cook, xxiv)

Let's look at another situation:

Developing the timpani stroke is another possible situation in which triple-channel learning can be very effective. The basic French grip stroke on timpani is somewhat different than the snare drum stroke described earlier. While the idea of following the stick or mallet off the drumhead remains similar, the grip position and mechanics work differently.

### Visual

It can be helpful to put the timpani mallets down and ask the student to hold an imaginary grapefruit between both hands. Then they can rotate their hands back and forth to "polish" the grapefruit. This creates the desired rotation in the forearm (the radius and ulna rotate back and forth around one another). Then the student can pick up the timpani mallets and continue the polishing motion. "Polishing a grapefruit" invokes specific images and motions that transfer very well to the basic motions of timpani technique.



Once the percussionist is comfortable with the rotating motion described above, they are ready to bring the mallets to the timpani. Using the visual channel here is very effective because the basic timpani stroke is quite large, and a lot can be learned from seeing what is happening. The student can stand in front of a mirror and hold their mallets in the "up" position (at the top of the stroke). They can watch one hand rotate down until the mallet head strikes the drum and rises back to the "up" position. The student should watch the entire motion in the mirror, assessing technical attributes from a visual standpoint: stroke motion, beating spots, posture, etc.

## Kinesthetic

Many times, one will notice an undesired “slicing” motion in one hand (usually the non-dominant), out of sync with the desired vertical movement of the mallet. This is simply because the percussionist’s non-dominant hand is learning the correct stroke mechanics at a slower pace than the dominant hand. Emphasizing the kinesthetic channel can be a remedy. Using the “cloning” method, the student can execute the basic stroke with both hands simultaneously. Kinesthetically, the way the dominant hand feels the motion will subconsciously transfer to the non-dominant hand.



## Auditory

Timpani tone is very important, and is directly affected by stroke style and mallet placement. This is when the auditory channel can be the most useful. The percussionist should sing the following syllables: “bum,” “pum,” and “tum.” Each syllable invokes a specific character for the timpani tone. Ask the student which syllable they would like to hear in their tone (and guide their answer to “bum” if needed), and then ask them to recreate it with mallets on the drum. This is highly effective in engaging their ears to really listen to their timpani sound and tone. This inner hearing plays a vital role for mental imaging. It is the ability to internally hear a musical gesture or action, feel the sensations of executing it, and mentally hone the interpretation. (Klickstein, 34-35)

What else can we do?

Aside from engaging in musical conversation while teaching, there are some other simple ways, as educators, we can promote triple-channel learning. Have mirrors available or, better yet, wall-mounted in the rehearsal and practice rooms. If cell phones aren't allowed in the school, providing access to video-recording capabilities is valuable.

The small backpack practice pads and bell kits that are often rented by students during the school year can be helpful for practicing at home. However, these should be avoided during rehearsal because they don't simulate real percussion instrument sounds and feel. Aside from learning the notes, striking hard plastic mallets on a small bell kit provides no feedback about touch, tone, or stroke style.

It is ideal to provide access to lower pitched instruments, like marimbas, because they resonate longer. This enhances the idea of legato playing, and producing tone on a percussion instrument. Listening to the marimba or xylophone tone and resonance with medium yarn wrapped or rubber mallets offers the realization that changing the touch on the instrument directly changes the tone and timbre.

Countless master classes and lectures have been presented on this topic by percussionist Michael Colgrass and harpist Dr. Carrol McLaughlin, both scholars in neuro-linguistic programming as it relates to music learning and performance. They have devoted their lives to developing the concept of triple-channel learning, and it is now widely endorsed by musicians around the world for good reason. (McLaughlin, 46) Realizing the ability to fully access any or all of the three learning channels can have a profound effect on music learning and performance. Practice time is better utilized, learning is more expeditious, and the level of performance quality skyrockets. Take advantage of these learning strategies to unlock your students' full musical potential. •

Dr. Jonathan Sharp is currently Assistant Professor of Percussion at Iowa State University and has held previous appointments at Morehead State University and Centre College. Dr. Sharp has performed concerts throughout the United States, Europe and Asia, as a soloist and classical musician. His performing credits include the Lexington Philharmonic Orchestra, the Champaign-Urbana Symphony Orchestra, the Boston Pops Orchestra, the Sinfonia Da Camera, and Pink Martini, among many others. He frequently tours schools presenting recitals, workshops, and clinics on topics including electro-acoustic percussion, contemporary keyboard, multiple percussion, concert snare drum, and marching percussion. Dr. Sharp holds degrees from the University of Kentucky, University of Illinois at Urbana-Champaign, and Morehead State University.

## End Notes

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Cook, Gary. Introduction. *Teaching Percussion*. 3rd ed. Belmont, CA: Schirmer, 2006. Xxiv.

Klickstein, Gerald. *The Musician's Way: A Guide to Practice, Performance, and Wellness*. Oxford: Oxford University Press Inc. 2009. 34-35.

McLaughlin, Carrol. *Power Performance*. Tuscon: IntegrityInk, 2008. 41-46.