Movement Patterns

An Alternative View of Progression and Skill Development
“All our knowledge has its origins in our perceptions.”

- Leonardo da Vinci
How do we typically define progressions?

• Typically, a progression for gymnastic skills is within a family of skills within an particular event

• For example: forward roll, HS roll, dive roll, dive roll onto a mat stack
Where did these concepts originate?

• Dr. A. B. Frederick’s charts on how families of skills relate

• Numerous examples of “skill families” and “core” or “root” skills

• Our own USAG Compulsory Routines
Vertical and Horizontal Progressions

• A vertical progression – the difficulty of each successive skill is greater than the prior one without changing the basic movement. An example is the forward roll progression used in the previous slide.

• A horizontal progression – the difficulty of each skill is only slightly affected by a change in the skill, with the skill remaining essentially the same throughout. Note: The purpose of this type of progression is to let the gymnast work at a level they are “safe” with until they have mastered the basics of the movement pattern. (East German “stabilization” notes)
Example of a Vertical Progression
Example of a Horizontal Progression
What is a movement pattern?

• A way of looking at not just skills on an event, but of a pattern of motion or movement that crosses over from event to event.
“Wave Mechanics” – A basic movement pattern that crosses events

• Hollow - straight – tight arch – straight – hollow  (and repeat)
• Possibly the most basic movement pattern of our sport
• We use it to tumble (and by extension to do beam), to swing, to vault
• Do it in the wrong order and problems develop with the movement and efficiency of the skill
Some small “Waves” in gymnastic skills
Other examples of “cross event” movement patterns

• The most obvious example is that of a tumbling skill; a front handspring on floor may be transferred to beam and to vault with some variation in take-off and landing requirements.

• Let’s look at a different example... for boys – the kip.
Three Variations on the “Kip” Movement
The “Kip Slide”

• Not just strength for kips - the “top” of this drill is also the shape for a clear hip; holding that position is a static strength drill/exercise

• Also the shape for a good layout salto (back or front), increasing static strength and awareness of position and body shape

• Passing from the pike hang to the inverted hang is also a “mini – lever” action for strength in that range of movement
Visual Patterns across events

• In the process of teaching a skill we often tell the kids what to see and where to look as cues for a correct performance.

• These may also be used with similar skills across the events as well.
Visual Patterns – Beginner Back Salto Tucked
Gymnast maintains focus on knees/shins
Finishing the “Pullover”
Note: Same Visual cue for back salto
Does this resemble the back drop a bit?
From a RO Back Handspring on Tumble Trak
Still spotting the knees/ shins
Finishing up on the landing
The carry over here is obvious, but where else can this come into play to help the gymnast?
How about in a back flyaway?

• The gymnast looks straight ahead as she passes directly under the bar in her tight arch
• She waits until her legs/shins swing up into her line of vision
• Releases and continues the backward roll movement of the flyaway
Tap swing to a tuck flyaway
“Only those who have the patience to do simple things perfectly will acquire the ability to do difficult things easily.”

- Aristotle