

All Mountain Ski Alliance

Movements in Motion: Skills Development- Cookie Hale and PJ Jones

Introduction.

The purpose of this program is to provide a simple, yet comprehensive, system for developing your skiing skills and providing you with a variety of ski techniques that you could utilize in various conditions and terrain.

The approach is a whole systems program where ski technique is presented wholistically utilizing some ‘modern’ teaching concepts. The participants are empowered to become aware of and accountable for their own learning and development.

Coaching will mainly be focused on developing sensory awareness, learning how to “talk” to your body, how to get past the prohibitions of your well meaning mind, as well as indulging your emotions, to be able to have fun developing your own skiing. You will be working with your own body, soul and spirit. So, we will stay away from traditional skiing terms and jargon. Perhaps we will invent some new words that help you to understand, implement, personalize and own some valuable skiing skills.

As human beings, we are spiritual beings who love to fly down the mountains on the snow. This joy and freedom is foundational to the program. We also love to share this “glee” of skiing with others, hence the social aspect of the program is equally important for its success.

We sincerely welcome you.

Enjoy!

PJ Jones and Cookie

Following is an overview of the Movements in Motion Skills Program. More details will be provided with each workshop.



Goal 1 - Developing A Foundational Turn

1. Turn Shape is Round

Make a few turns and look back at your tracks? What shape or design did you leave in the snow? Rounded arcs? Zig-zags with very sharp corners?



When you make a turn, what is it that governs your decision as to what shape to make? Perhaps, you have never considered what shape of turn to make and you just turn.

We will spend some time becoming aware of our tracks in the snow, the various shapes we can make, and how the shape effects the techniques that we need to utilize.

There are a variety of turn shapes, however, our goal in this part of the workshop is to work towards making very round tracks in the snow: skidded or carved is not of

importance at this point, just the shape. This will help us focus on the blending of the skills of steering, edging and pressure management.

We will pay attention to the timing, the direction, the intensity and the duration of our movements that create a round turn.

We will pay attention to how a round turn “feels” on the snow and to your body.

A round turn allows us to learn to love the fall line, to love gravity and enjoy it.

A round turn teaches us about releasing and moving forward and down the hill, foragonal, as we begin the next turn.

A round turn begins to smooth out all of our movement patterns to becoming more progressive and continual.

A round turn feels good.

A round turn is continual and progressive.

A round turn is all about foragonal finishiation with stackitude, it is “ing”: i.e. we are always moving along a forward/downhill/diagonal curved path (foragonal), with continual and progressive movements for steering, edging, managing pressure (finishiation) while aligning our bones, our bodies, to forces (stackitude). Do it, feel it, be it!

2. Balancing Now

In this *new enlightened era of ski technique and learning* ;),....., we no longer strive for a balancED stance... Huh? Once you have a balanced stance, and you move, you loose it. Instead, we are always actively balancing, movements in motion. The real Zen part of this concept is that you can indeed be always successful at balancing (dynamic) just by never arriving at a balanced

stance (static)! We are always balanc**ING**. It is the “ing” that we ski. However, some comparison of this dynamic to the static concept will help us understand and allow us to triumph in the realm of balancing. Balancing is one of those things that allow us to relax and stay content!

Imagine a little child stacking wooden blocks. As long as the blocks are stacked in a balanced manner relative to gravity, they will not fall over. Stand up. You can either stand with your bones stacked, in a very balanced stance that uses little muscle (that your mother would like), or you can not stack your bones, stand twisted and bent, and use more muscular effort to stay standing. Stacking your bones to the forces is what we are after in balancing. It feels good.

Now flex, bend and stay balanced. One important concept in skiing is always round the small of your back. Do not arch it as you do for yoga or lifting weights, but rather round it and round your shoulders as well. Think of slouching when you flex. This will protect your back and also free up your hips, allowing them to be more mobile, so you can be agile like a cat. Think cat back!

Standing still, the only force you have to reckon with is gravity. Your brain and your body are really good at helping you feel what that balance is. You know when you are not in balance. Moving on skis, you have to reckon with the total forces created by gravity and your momentum that you initiate with your muscular effort. You also have to reckon with whatever may modify those forces such as friction, changes in terrain and snow. Your brain and your body can just as easily help you feel and stay balancing to all the forces, if you allow yourself to do that. We can all be ‘natural’ athletes when we learn how to relax enough so we can feel the forces and stay balancing in them. It’s amazing how when we are balancing, we will also be able to relax and stay loose which will help us feel the forces and continue to stay balancing!

In moving continually, always keeping my body stacking in the forces, it is also important to keep my spine, my back, rounded, more like a cat-back, to allow my hips and lower body to be free to move.



Maintaining fore/aft as well as lateral and vertical balance is a matter of timing, direction, intensity and accuracy of moving. For example, someone who is plagued with always being in the backseat, can become more balanced by unbending foragonally (direction) into the turn after edge change (timing) - committing to the turn keeps them from getting in the backseat.

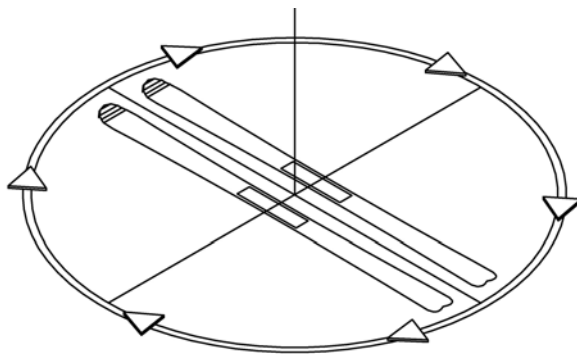
On the snow, we will work on balancing by relaxing enough to feel the forces and moving with them. We will pay attention to and feeling certain parts of our bodies. These focuses will help us stay balancing in the turn

forces. We will also use a variety of side slipping techniques and drills as well as with skidded turns, evolving into scarving and even some carving.

3. Steering Always

Steering skis is a skill that we are always using whether we are going straight or turning. Steering is guiding the skis. Steering is used in both large Super-G turns and pivot slips. Developing and

honing this skill is fun and yields instant rewards; i.e. being able to steer your skis makes you feel more in control and control is something that most people relish! Steering is mostly a lower body skill (feet, shins, thighs, hips). Fundamental to it is knowing what a lower body that is lined up and working together feels like. Twisted and contorted legs are a real detriment. The old notion of counter sometimes leads to twisted legs. Learning to feel instead of thinking about some presumed position is the first goal of steering.



Rotary/Steering/Guiding

In order to effectively use our lower body, we need to coordinate it with our upper body (torso, shoulders, head and arms). The key to maintaining a lined up, functioning lower body is in coordinating upper body with lower body movements in regards to the timing, direction, duration and accuracy of all of our movements. We must guide and direct our upper body to enable us to efficiently steer our skis.

In our *new enlightened era of ski technique and learning*, we no longer try to counter, angulate, hip angulate, knee angulate, level shoulders or whatever. We are not striving for some position. We simply move parts of our body in a certain direction at a certain time for a certain duration with certain intensity. Our concepts of good skiing have graduated from being position oriented to movements in motion oriented. We feel and are aware of the sensations. We dance on our skis.

Basically, we steer our skis around with our lower body, the lower “me”. They are our base of support. So, what is the lower body and what is the upper body? Functionally, our feet are attached to our shins and our shins to our thighs. Since our thigh bone ends in the hip socket, how we orient our hips will effect how we can use our thighs. Therefore, functionally, the hips are part of the lower body. Belly button, or waist, down is lower body.

Our shoulders are connected to our hips with our spine that can twist and bend. Our shoulders and hips can be point in different directions at the same time. If you sit down, with your feet on the floor, you can easily turn your shoulders in relation to your hips. When you turn, you twist your spine. For simplicity sake, I think of this as having a turntable near my belly button, my waist area. My hips go with my legs, not with my shoulders. Belly button up is upper body.

My hips and thighs are operated by some very large and strong muscles. These muscles can control greater forces than the muscles in my lower legs and feet. So, when thinking of steering your skis, start to pay attention to what you feel and how you use your hips and thighs.

Understanding the knee joint is an important concept. While the knee can bend sideways a bit more when flexed, it is a hinge joint, a loose hinge joint. The knee functions best when the thigh and the shin bones are lined up; i.e. hips are over the feet when viewed from the front. The whole lower body may be inclined, but there is still that straight line running down the front of the thigh bone and shin. Keeping this alignment, I can then more easily steer my skis mainly using the larger muscles of my thighs and buttock (hips/thighs).

Like this!



**Not twisted
(countered)
like this!**



Like this!



**Not twisted
(countered) like this!**



I am always steering, guiding my skis. Around edge change, I think of steering my skis onto the new edges. As I roll my feet, inside my boots, I am also steering them feeling my feet and shins being stable and moving around with my skis. However, right as the edges are engaging, I focus on aiming my thighs around and into the new turn as I am unbending, aka, extending. As my thighs come around and the pressure builds, I become more aware of my hips coming around with my thighs, shins, feet, skis. Where the pressure is the greatest in the turn, just after the apex, I feel most of my steering energy coming from my hips, being supported and stabilized with my feet and shins and thighs. That is why I say that I use my hips to help steer my skis!

For steering our skis to be the easiest, we also need to consider our upper body. While we do not steer our skis with our upper body, we need to coordinate our lower body with our upper body. We are always guiding and directing our upper body where we are going next - the upper “me” - just as much as we are steering our skis. I focus on that upper “me” when I think of where I am going. I think of my lower body, the tracing of my skis in the snow as supporting “me”. I am steering my skis with my lower body, supporting where “I”, the upper “me”, am/is going.

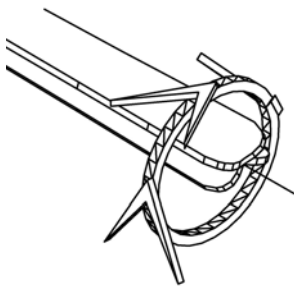


My center of mass is around my belly button area, sometimes it is even outside of my body. I certainly do not want that center of mass tipping and twisting or flopping around. I want it guided and directed efficiently and effectively at where I am going next. A simplistic and easy way to think of it is that we aim our zipper line of our jacket at where we want to go next.

So, steering my skis is the result of a coordinated effort between guiding and directing my upper body where I want to go and keeping my lower body, my base of support, lined up and functional so I can also steer my skis. Steering is continual and progressive.

We will not exhaust the steering discussion at this point, but will move on to our next intermediate goal, edging.

4. Edging Always, Progressively



Edging

Similar to steering, we are always working with edging skills - tipping or flattening our skis, progressively, continually as the turn shape, speed, terrain and conditions dictate. What do you feel when you edge your skis? How do you think about? How do you communicate with your body to tip the skis? What are your feedback cues? Edging is something we are always controlling, but the rate as well as the intensity varies.

The feel of the skis in the snow, as well as the sound of the skis in the snow, give us feedback on our edging. We are always also blending the tipping/edging of our skis with their steering. Always balancing over our feet (loose, centered, mobile) facilitates edging.



Being either too forward or back hinders edging. Turn shape also directly effects how much to edge and how early in the turn to edge.

If you want to work on your edging, start by working on rounding out the top of your turn. Then, while making a round turn, focus on keeping your lower body lined up; i.e. hips, thighs, shins, feet.

What do you do to tip the skis? Our boots are pretty stiff laterally so when we tip our shin bones, our skis tip. Our personal cues may vary a bit in how we tell our shins to tip, but here is what I feel when I want to change edges. It feels like I start by rolling my new outside foot inside my boot and pressing onto my arch. Right about the same time, I move my inside knee using my thigh. To edge more, I increasing lay into that arch of my outside foot and pull inwards (and back even) that inside thigh/knee. All the while, I am keeping my legs in alignment (thighs and shins in line by keeping hips lined up with feet), so as I edge more, I am also lining up in the relative centripetal force of the turn - i.e. moving to the inside so I stay stacked over my feet. I **FEEL** for the centripetal force and want to stay balancing in it - stackitude.

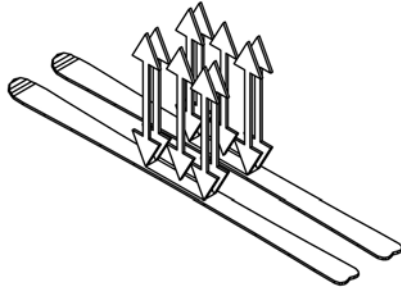
My upper body is not in line with my legs, but rather balancing in the total turn forces and guiding and directing where I am going next. I do not want my upper body to be flopping from one side to the other, but rather I want it moving efficiently along a more direct and inside path, balancing in the forces. I am always feeling the snow with my edges, feeling the forces and continually and progressively increasing or decreasing my edging accordingly to what I want to do with the turn.

At the bottom part of the arc, in a more carved turn, I work my edges more by driving my shins as I keep laying into that outside arch and pulling that inside thigh/knee to the inside. As I start to decrease the edges and move into the new turn, I switch to feeling and focusing on what will be my new outside ski. I start to let up and roll onto that new arch while starting to pull what will be my new inside leg towards what will be the center of the new arc. Basically, I switch my focus, to the new outside/inside legs way before they actually are them!



Thus, in regards to edging, my focus is mostly on my outside arch and inside knee/thigh. As I come through the bottom of the turn, I begin to feel more driving my shins with my inside knee/thigh because it is going to soon become my new outside/dominant ski. You may work with your body differently, but for me, this works. This timing of switching the focus from old to new outside foot, is coordinated with my foot to foot pressure flow - which we will discuss next.

5. Managing Pressure Always



Pressure

We certainly feel pressure - pressure of the skis on the snow, pressure of the turn forces on us, pressure on one foot compared to the other foot.

So, how do we manage all this complicated pressure that we feel? We manage pressure by the direction, timing, duration, intensity of our movements. Do we need to completely understand all the physics of the pressure forces in order to manage it? No, however, for some, they need to know a bit in order for their brains to allow them to feel and manage pressure. So, here is the basic physics, in simple language.

We have gravity and friction. We have our spirit and will. Our spirit says “ski” and our “will” agrees. Off we go. We leave our safe balanced position on the mountain side, tip down the hill and allow gravity to pull us down the snowy slope. As we continue, we now have momentum.

There is also friction - snow/skis, wind/body. When our spirit, as allowed by our will, and enabled by friction and muscles, decides to play in the forces and change the direction of our sliding, we feel pressure. We feel centrifugal force pulling us towards the outside of the turn. We feel the combined effects of centrifugal force and gravity as we cross the mountain side at the bottom of a turn. To stay balancing to the turn forces, we line up our bodies in the centripetal force (the force towards the inside), while at the same time, guiding and directing our body into yet another direction, a new turn!



We want to stay “ing” in the forces which includes fore/aft, and foot to foot as well. How we blend our steering and edging and shape our turns also effects the pressure on our skis and bodies.

You could drive yourself, as well as others, nuts, by spending endless time dissecting and analyzing the forces and the pressure on the skis. For now, though, we just need some fundamental concepts we can actually “do”.

The first concept is that you can manage the total pressure of the turn forces by bending and unbending; i.e. flexing and extending. The timing and the direction of your bending/unbending is

the key. Bending/flexing at the bottom of the turn, moving with the forces, going in the same direction of the pull of gravity and centrifugal force, decreases the pressure on the skis right where it is the greatest.

Certainly, we can push down at the bottom of the turn, as we used to, to dig in and edge and check increasing pressure, but that is not the movement pattern that we are considering with a nice round turn. We bend/flex, go with the forces, and start moving our upper body in the direction of the turn path. This decreases the total pressure on our skis.

If we progressively bend and then progressively begin to unbend, we can also control the rate as well as the direction of the energy from that pressure at the bottom of our turn. This can effect the pressure on our skis at the top of the arc, before the apex.

We also can choose how we distribute the foot to foot pressure - both in timing and amount. We have noted for years that skiing is outside ski dominant. This is obvious and we all experience it. However, if we do nothing to manage the pressure distribution laterally (foot-to-foot), the outside ski is many times not dominant until after the apex. The more pressure there is on the outside ski at the bottom of a turn, the more effort it takes to release that ski and move into a new arc. The more edge angle we will also need to hold the curve of a turn. However, if we can reduce the total pressure as well as be closer more equally weighted at edge change, it is not only easier to tip the skis on their new edges, but also easier to steer them in the top of the arc. Turning while the outside ski is already dominant at the top of a turn is much easier. Our bodies are working with the forces. So, the goal is to strive for being 50:50 at edge change and immediately and increasingly dominant on the outside ski right after edge change.



How can we do this? How can we vary the foot to foot pressure instead of waiting for physics to throw us to the outside late in the turn, after the fallline? What do we feel and do?

I think of this as a timing issue that I call and early weight distribution/flow. Again, I feel it as being progressive and continual, **all** the time, another “always”. I am always varying the amount of weight being distributed from one foot to the other, a continual and progressive weight flow.

The apex is where I think of this weight flow changing sides, akin to a slinky toy. Right after the

apex, I start to flex to decrease the pressure. Right after the apex, as I start to flex, I start to gradually and progressively put more weight on my inside ski. I slightly am moving my hips laterally, but I am not by twisting or countering my hips.



Right after the apex, as I start to flex, my upper body, “me”, already is starting the next turn. So, by flexing right after the apex of the turn, I am managing both the total pressure of the turn forces, as well as the foot-to-foot, lateral, pressure distribution of that total turn force pressure and starting the new turn with my upper body, or “me”. So, I “think” new turn right after the apex. *This is a key perception that indeed helps me manage pressure as well as set me up for more edge earlier in the turn, steering a nice round top of the turn as well as being able to move foragonally into the new turn with stackitude, balancing all the time over my feet. This all starts with “thinking” “new” right after the apex.*

Right after the apex, as I start to flex, I am also starting the new turn with my upper body.



However, my lower body is still steering and edging my skis, finishing up the old turn. When I release my edges, change edges, my lower body then starts the new turn.

In regards to pressure management, at edge change/release, I may be flexing or retracting or already extending, depending on how I want to manage the pressure on my skis. Most of the time, in normal recreational skiing, I will be extending at edge change.

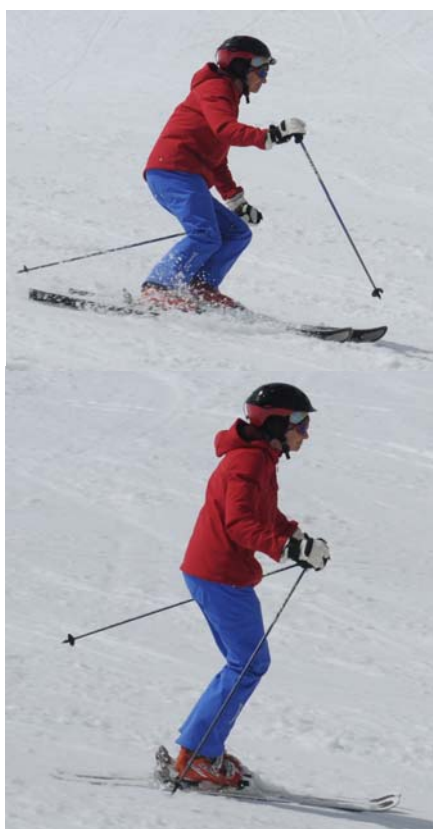
By timing my flexing and extending with the turn shape, I can decrease the pressure at the bottom of the turn where physics dictates that it is the greatest and I can also increase the pressure at the top of the turn.

I can also manage pressure by steering and edging to vary the shape of the turn - all the time blending that with my flexing/extending, my bending/unbending. Pressure management is a whole package deal. I want to be always balancing in the forces as I manage pressure. I never want to be either moving forward or backwards on my skis. Certainly, I will get tossed and thrown in both directions by the terrain and snow, but I always try to return to my “home” base, balancing over my feet so I can be mobile and agile.

Bending/unbending, flexing/extending is very direction and timing sensitive. I think of “when” do I want to move “where”. A smooth, well timed and directed pole swing helps with this.



Swinging my pole in the direction of the new turn helps me with timing as well as continuing the progressive bending/unbending foragonal movements.



The direction I bend or unbend helps me stay balancing in the turn forces, so I can effectively edge and steer my skis, as well as manage the pressure. Right after edge change, my body continues to move foragonally into the new turn, in the *same* direction that it started to move when I started flexing after the apex of the previous turn; i.e. the new turn.

By moving, unbending, into the turn foragonally, I am keeping myself balancing over my skis. This timing and direction of the foragonal movement at the top of the turn, helps me maintain fore/aft balance. If I fail to move in foragonally, my skis, which will speed up at the apex, will get ahead of me and I will end up behind them, in the back seat, at the bottom of the turn, after the apex. So, to stay balancing, going with my skis, not back and not forward, I unbend foragonally after edge release, my ankles unbend, my knees and hips unbend - i.e. my thighs move more vertical into the new turn as my shins also move more vertically.

This unbending foragonally concept that helps keep me going *with* my skis is a bit confused by some who think that you need to get forward to start a turn. Forward, or towards the ski tips is the wrong direction to move! Some even confuse pressing the shins more into the boot cuffs with getting

forward and even say that they want to pressure the tips of the skis to start a turn. I certainly feel tip pressure at the start of a turn, but that is because I tip my skis on edge and engage the tips, not because I press on the tips of the tips of the skis. It is also very difficult to be progressive in your edging if you are pressing on the tips of the skis! In regards to the shin/cuff pressure, I feel it *reducing* as I unbend/extend foragonally into the turn. My shin bones are very actively, always tipping and straightening, foragonally from one side to the other.

I also think of moving where I want to go, aiming the zipper of my jacket where I am going next, while balancing over my skis, staying centered and mobile. At the same time, I think of my skis as my base of support that is enabling me to go where I want to go.

Summary - Putting it all Together

Elegant skiing is all about coordinating the timing, direction, intensity and duration of movements. Movements in motion. This coordination results in accuracy. Our movements are founded on blending the skills of steering, edging and pressure management while balancing in the forces. What we feel and when we focus on feeling what is how we orchestrate this dance of skiing.

So first begin by going skiing and paying attention to what you feel. What do you feel and do to steer your skis? What do you feel and do to edge your skis? What do you feel and do to control the pressure on your skis? What is your perception of what you want to do and feel?

Pay attention to the direction you are moving. Pay attention to the timing of when you are changing that direction, how intense, how long the movement is for, how progressive.

Who are you? What part of your body do you identify as “you”? Are you your lower body, your skis, your upper body, your belly? Your perception of who you are, where you are going, how you are desiring it to feel, is a guiding force in your performance.

Here are a few of the cues that work for me:

I want to make a round turn. I want it to feel round.

I want to be always steering, progressively edging/unedging, flowing my weight from foot to foot, managing the pressure of the turn forces while balancing and staying mobile and agile.

I “am” my core, my belly.

I aim “me” at where I want to go next - aim zipper line of jacket.

I start aiming “me” right after apex of turn as I start to flex to go with the forces.

I start moving to my new outside ski right as I start to flex.

I continue to feel the arch of my outside foot as I edge and steer, driving my shins as my lower body finishes the old turn - but my upper body, “me”, has already started the new turn.

I start rolling my feet to my new edges by focusing on my new outside arch and inside knee/thigh, as “I” am moving into the new turn (across my skis and around through the turn).

I bring my thighs more vertical, over and around into the new turn, unbending foragonally, steering and edging, with stackitude, going with my skis.

I am very aware of continuing to steer the skis as I round the apex using my hips and being strongly aligned with my legs.

I stay loose and go with the force! YES!!!!

