PEAK PERFORMANCE

Aerial Tramways
Time and Focus
Wedge Christies
Pressuring Toes
Warming up on Steeps

Visual Accuracy
Tipping Point
Professionalism

“...enlightening read for over 6 years!”
Photo on the Summit

Skier, Palmer Hoyt launches off of Vail’s legendary Ptarmigan cornice as the Mount Holy Cross looms in the background. Photo contribution to Peak Performance Gazette is by the photographer Jack Affleck.

Jack Affleck is a Colorado-based photographer with many years of experience in brand photography, action photography, and sports photography. Jack loves to travel Colorado with his photography, showcasing his unique brand of action motion photography and displaying his passion and professionalism.

Traveling the globe, Jack offers his full-service pre- and post-production skills for any project – travel photography, branding photography, sports photography, and more. His hands-on project management ensures the efficient completion of any project, large or small. Working with National Advertising, Creative and Branding agencies, as well as in-house Marketing and PR departments across the country, Jack’s work spans from Travel Photography to Action Motion Photography to Brand Photography. Jack’s work can also be seen in a variety of editorial publications and art houses across the country.

Affleck Photography specializes in:

- Action Photography
- Sports Photography
- Action Motion Photography
- Colorado Travel Photography
- Brand Photography

From the high-alpine environment of the Colorado Rockies in which he calls “his studio” to the tropical climes of beach assignments, Jack has proven to be one of the premiere names in lifestyle, action and resort imagery.

Working with National Advertising, Creative and Branding agencies, as well as in-house Marketing and PR Departments across the country, Jack’s work spans from Adventure Travel and Action Sports to Lifestyle and Panoramic Landscapes. Jack’s work can also be seen in a variety of editorial publications and art houses across the country.

While Jack calls beautiful Vail, Colorado his home and fully embodies the Colorado lifestyle, he brings this same passion and enthusiasm to locations across the globe. For more information, go to http://www.jackaffleckphotography.com/.
What can I say – winter season has come to an end just a few days ago at my home resort. But passion for skiing lives on. Something about sliding on this slick (you hope) surface called snow (or ice), with those boards tied to my feet gives me a feeling which I can’t describe, nor let go of. You all know what I am talking about because this is why you are reading this publication.

Don’t know about you, but over the years, (it took many years), I learned how to reflect and learn from previous experiences as well as look into the future and make plans. I don’t do this very well yet, but I try. In view of my current plans for the future, I am looking at a total hip replacement this coming May. It has come to the point where recovery from my ski accident 7 years ago will not get better until this additional, follow up surgery takes place (among many other ones I have undergone). It is still unknown whether a surgery on my ankle will produce any improvements, so that one will remain on the back burner.

Hips are just so important in skiing, like knees and all these other things. The whole body works. It was a really hard recovery for me for the last 7 years, and I am at the point now where things are getting worse instead of better. If you skied with me and have a keen eye, you could see how I have to compensate for physical deficiencies. Eric Jordan, President of PSIA-E who was coaching me at Seven Springs, PA told me a few weeks ago that “at least (I) have a good excuse.” I appreciated his compassion, but I want to do better and not rely on excuses. Besides, who actually cares?

My doctor showed me X-rays and pointed out why my surgery will be so very serious. I have unusually difficult situation which will cause intense trauma to the body. Not going into details, let me just say that I will be back on a walker for quite sometime. But, the plan is to be on the slopes in the Fall.

I know that many go through much more issues then myself. Truly, I feel and pray for you.

To put things on a bright side, let me tell you that it was a great year for Peak Performance Gazette. Its circulation grew from month to month. I hope that it proved to be helpful to you under every respect. Often I find myself rereading previously published articles in Peak Performance. Every time they speak to me differently. But, there is one common
theme to all those feelings – I wish there was a resource like this when I was preparing for my certification journey. There was nothing wrong with what was available at that time, but the flavor of this publication is different. There are different voices, they say different things different ways. And best of all, it’s all for FREE.

In case you have not made all your future plans, I can help you make some. Consider writing an article for this gazette. You might want to share your knowledge and love for skiing with our readers. Maybe there is something funny that took place, a new or different experience which you like to tell others about. I have listed some topics in the February issue of Peak Performance commenting that pretty much anything and everything pertains to our great sport. So, take time to put things down and send them my way. Maybe you would like to write something that you would like to see printed in a particular month. Write it now, so you won’t have to write later when you will be busy on the slopes.

If you are a ski instructor, don’t you enjoy teaching? You can do teaching on or off the snow. You can write about it. Some students will not remember what you said. So, if you tell them about this publication, then they can read about skiing, and reread, and review, and remember that much better. If you are a trainer at your ski school or a director, then you are also an instructor or a coach. You can write about your training scenarios. You can also share this publication with your members to promote versatility and increase enthusiasm. You might want to encourage instructors to write an article because you know that they will have to give it some serious thought before they can put things on paper. If you are a race coach – you can write about issues that come up in racing. For all the certification exams you will need to read. Well, someone needs to actually write things that you can read. There is plenty out there, but nothing like Peak Performance Gazette. It is covered with good information and with very few advertisements to sift through.

Our next issue will be in July. After that we start again monthly in September. Take a minute and write me at Kosmalaw@bellsouth.net and tell me what you think about this gazette and how you would like to get involved. I hope you choose to help. Spread the word, LIKE us on Facebook, send a photo, send a donation. Do SOMETHING. Wouldn’t you like to see your name and maybe a photo in a national publication? Show your buddies and your supervisors that you care about promoting skiing and you took this step to write about issues pertained to skiing? Maybe your other profession is something different then skiing. Then you can write how your professions are linked. EVERYTHING is linked to skiing.

My surface address is given on the last page. Look me up on Facebook. Show me that you care about our great sport of skiing.

For now, I like to present to you this April issue. You are already past the first 2 pages. Hope that you found the cover photo impressive. I deeply thank the skier (Palmer Hoyt) and the photographer (Jack Affleck) for their contribution to this publication. Hope you continue reading and enjoy every article that is printed. Many thanks go to all of the authors, their contributions, their efforts and time. I hope you take a moment and send them short words of thanks.

To find copies of Peak Performance publications, here are some ways to do that. Choose your favorite method.

- Use the dropbox www.dropbox.com/sh/wirz16pzo690i/PQr004dmUj
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- Go to my university webpage www.mathsci.appstate.edu/~wak/. This one is easy for reading on line.
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My hopes are that this gazette will serve you as an outstanding reading material. Have a great EASTER and be thankful.

Witold

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Main Course

The Tipping Point or You Can’t Get There From Here

By Jackson Hogan, Editor of www.realskiers.com

There’s a folk tale about a native Vermonter that begins with a lost tourist asking for directions and ends with the native’s curt advice: You cain’t git they-ah from he-ah.

Expert skiers who have mastered a measure of technique yet still haven’t grasped how truly to master the mountain find themselves at a similar juncture: they’ve heard about the destination but don’t know how to get there, and local knowledge isn’t much help.

The ability to dance in the gravity stream begins with a change in attitude, the adoption of a mindset that seeks to harmonize with the mountain. If you approach a big mountain from a me-against-you point of view, just whom do you expect to win?

You can’t harmonize with a voice you can’t hear, so you first must filter out all the babble and buzz that disturbs your ability to listen. And you are included among the babble-makers and you, too, must quiet down and turn off your instinct to yak-yak-yak whether internally or out loud.

One curse of consciousness is that it loves its own voice and if you can’t seem to find the off switch on your inner critic’s microphone, it’s because first you must invent one.

This virtual switch can be a single word or a brief gesture, like putting on your goggles or clicking pole shafts together, but it has to be quick, easy and an unalterable part of your routine. It’s your signal to yourself to shut the hell up, to focus your energy downhill and go!

The trigger is your tipping point, the no-going-back moment when you throw your body on autopilot and place your chattering brain on pause. Once you hit your trigger, there can be no hesitation and no deliberation because either requires the internal Other that you just fired. When the plan is to disappear in the doing, you go because that’s all that’s left for you to do: you are now a skier skiing, or a skiing skier, and nothing else.

To commit to this trigger mechanism, you must possess confidence in your abilities. Plenty of skiers have the skills but lack the commitment and courage to put them in play when conditions get dicey. Somewhere between quieting down and psyching up, they make a hash of the mind-body connection and so reduce the effectiveness of both.

The path from paralysis to push-off is defined by immersion in details. Focus on the little things: the texture of the snow, the direction of the wind, the rhythm of your breathing.

Now the next trick: try a bit of time travel. Don’t just visualize the run you are about to experience; try to sense it with all you’ve got.

Feel the snow against your shins, the movement of your skis across the face of a mogul, the extension of your legs to meet a fall-away trough. Play the movie of your run all the way forward and then rewind to the start. See-feel-hear the first turn in sharp, high-definition, sense-O-rama detail, hit your trigger, tip in and go, baby, go.

Notice that fear doesn’t enter the equation because focus on flow details won’t allow fear entrée into the moment. You’re already busy skiing the run you’re about to ski, and doing so successfully. As soon as your mind’s image of the run is complete, it’s trigger time. Fear is left outside the party, its ugly face pressed against the glass, powerless.

Certainly it’s easier to write all this than do it, but not by much. One of the secrets of great skiing is that it’s not really that
hard unless you go out of your way to make it so. When you become quiet enough to hear the cadence of the slope beneath, you move in concert with the energy that propels you.

Whatever energy you invest tipping into the flow of gravity's stream will be repaid in the currency of ecstasy.

Jackson has played more roles in the ski trade than Eskimos have words for snow:

Si designer, binding and boot product manager, freestyle competitor, retail salesman, lecturer on risk management, ski instructor, marketing director, resort feature writer, ski tester for 25 years and boot tester for 20, OLN and RSN television show host, extreme camp ski coach, Desperate Measures co-creator, 4X Warren Miller screenwriter, R&D chief, honorary Canadian, college racer, 2X personal therapist to Greg Stump, regular contributor to at least ten different ski magazines, and in his guise as Pontiff of Powder, married Paul Hochman and Carrie Sheinberg in all ways but legally.

Jackson is all but universally considered to be the best currently active ski writer.

Aerial Tramways in the US

By Witold Kosmala
PSIA-E Alpine, Level III
Ski Instructor, Coach and Trainer mostly in NC

Aerial Tramways in my opinion are fascinating. Below I listed (hopefully) all the aerial trams currently in use in the US. I hope you will plan to take a ride on each one of them.

- Alyeska Resort in Girdwood, Alaska.
- The Cannon Mountain Tram in Franconia, New Hampshire.
- The tram at El Paso, Texas.
- Estes Park Aerial Tramway in Estes Park, Colorado.
- The Hawks Nest State Park aerial tram, in Fayette County, West Virginia.
- The aerial tramway at Heavenly Ski Resort, near South Lake Tahoe, California.
- Jackson Hole Tram at Jackson Hole Mountain Resort near Jackson, Wyoming.
- Jay Peak Resort ski resort in Jay, Vermont.
- The Lone Peak Tram at Big Sky Ski Resort, in Montana.
- Mount Roberts Tramway, in Juneau, Alaska.
- The tram to Ober Gatlinburg ski resort and amusement park in Gatlinburg, Tennessee.

The tram to Ober Gatlinburg ski resort and amusement park in Gatlinburg, Tennessee.
The Palm Springs Aerial Tramway in Palm Springs, California.

The aerial tram at Pipestem Resort State Park in Pipestem, West Virginia.

The Portland Aerial Tram, a commuting tram in urban Portland, Oregon. (It has a capacity of 30,000 passengers per day.)

The Roosevelt Island Tramway in New York City is one of two aerial tramways in North America used by commuters as a mode of mass transit (the Portland Aerial Tram being the other).

The Palm Springs Aerial Tramway in Palm Springs, California, which is the largest rotating aerial tramway in the world.

The Sandia Peak Tramway in Albuquerque, New Mexico. It is North America’s longest aerial tram.

Snowbasin Olympic Tram.

The tram at Snowbird, Utah, a ski and summer resort near Salt Lake City.

The Squaw Valley Aerial Tramway at Squaw Valley Ski Resort, California.

The aerial tram at Sterling Vineyards in Calistoga, California.

The skylift at Stone Mountain, near Atlanta, Georgia.

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The interior of one of the tram cars the Palm Springs Aerial Tramway currently uses. The floor revolves as the tram car ascends or descends the mountain.

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**No Surprises in Certification!**

**Time and Focus**

*By Jim Hanson*

*PSIA-E Alpine, Level III*

*Children Specialist 1, Area Resort Trainer, Trainer Academy*

To be successful as an instructor and in certification knowing what is expected and how to attain it is very important. I submitted a list of tasks that you should be able to do at each certification level to last month’s *Peak Performance Gazette*. Over the years I have had many conversations with instructors, expressing concerns that they never have time to develop the necessary skills for these tasks. The great thing about the certification process is that it has a direct relationship to what we do with students in our daily lessons, and what we do with our free time skiing!

Skill development needs **time** and **focus**. We get **time** to practice skill development every time we put on our boots and skis. We even get to practice our skill development when we teach our students, and make a quick run on the hill. The **focus** is to be aware of what we are doing and know what we want to accomplish during that time.

I will try to keep it simple by briefly discussing one task.

*Walking Around on Flat Terrain.*

This is considered the basic part of every beginner lesson. As instructors, we get the chance to practice this task with every beginner lesson we teach. Therefore, there should be plenty of **time** to practice this task in preparation for certification. To take advantage of the time, we need to **focus**.

This **focus** on our own practice should in no way detract from the focus of our students. If we present the best demo of how to walk around on flat terrain, we are giving our customers the correct visual picture of what good walking is, and will continue to improve our own skills in the process.
So what skill development should we focus on with good walking on flat terrain? There are many but here some clear focus items:

**Edge Control Movements** – People with lower level edge control movements usually have issues with the ski slipping to the side as they walk. As instructors our focus is to edge the skis enough to keep them from slipping sideways as we encounter uneven areas of snow and changes in pitch. This occurs depending on how much we incline or create an angle to engage the edge. Skill development usually goes from inclining to creating angles. The picture we need to show is enough edge engagement to create a stable platform from which we can move forward, not sideways.

**Pressure Control Movements** – People with lower level pressure control movements do not have their body moving in the direction of travel. This leads to uneven weight distribution on the skis, with pressure toward the tails resulting in the lifting of the ski tip as walking occurs on flat terrain (so much for keeping it simple). As instructors, our focus is to have the body mass centered and moving forward to maintain even pressure along the ski, thereby allowing the ski to be lifted in a parallel relationship to the snow.

**Rotary Control Movements** – People with lower level skill development tend to make large movements with regards to making turns while walking around on flat terrain. This will result in cross skis (tips as well as tails) and the skis not traveling in the intended path. As instructors, our focus is to fine-tune our rotary skill movements to make every movement precise and move as intended. Minimizing the rotary movement is just as important a skill development as making a big rotary movement.

This was just one task used in a lesson. Every task in the task list can be broken down in the same manner. Skill development does not just occur from skiing the black diamonds and bumps over and over again; it is the time and focus we give to ourselves and our customers that really develop the skills necessary for certification.

Many experienced ski instructors can determine a skier’s level just from watching them walk around in their equipment on flat terrain. Seek out these instructors to add to your focus.

As instructors, we are already given the time to improve our skills and train for certification, we just may need to focus on what we are actually doing.

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Jim is a 30 year member of PSIA who has attended 1 or more clinics / exams per year to continue his education. He taught for 19 Years at Peek’n Peak resort in western NY, 9 years at Montage Mountain PA, and currently is a weekend warrior at Sugar Mountain NC. Please engage Jim with any questions or concerns about your personal skiing, teaching or the PSIA certification process. Contact info: jpszhanson@msn.com.

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**Professionalism & Professionals in the Snow Sports School**

*By Steven Davis*

PSIA-W Alpine, Level III

Ski School Trainer, Mammoth Mtn. CA

The ski (and now ski/snowboard) industry has been in the process of developing instructor professionalism for many years. In the wake of Snow Sports Anniversary, school professionalism finds itself as a concept evolving between the public and the ski/snowboard instructors themselves.

The fact is that instructors are a part of a professional organization, which has become more recognized in the sports industry. In 1961, a professional ski instructor’s association, PSIA was formed, similar in many ways to the professional teacher associations seen in education today. The development of PSIA pooled the talents of many individuals to create a
universal ski teaching language for all instructors to follow. Now teaching guides and manuals, professional conduct standards, universal safety codes, certification exams, and overall policies were developed to improve the quality of instruction, and thus develop a far better, more acknowledged career for the instructor. With the enthusiasm of the instructors and the dedication many of us have shown, instruction is beginning to emulate professionalism in the sports industry.

We may be or have been, losing touch with our customers and future snow riders. We need to train instructors to sell, and our business to reach out to the public. If you really look at the customers, lessons are the least important item in anyone’s budget compared to lift tickets, rentals, clothing, meals, transportation to and from the ski/snowboard area, and accommodations.

Ski/Snowboard area owners and snow sports managers need to see each instructor as the final link in the chain of making sure the customer has positive and enjoyable skiing or snowboarding. Often instructors need to be trained in customer handling in order to generate and assure a high rate of returning business and generate new business from (Word of Mouth) their students. To improve sales training includes: professionalism in the industry, public relations, and the development of personable relationships with the student.

**PROFESSIONALISM**

Professionalism is a word often battered about by the instructors. Let’s look at how accurately professionalism is defined:

Webster’s Third New International Dictionary:

1. A calling requiring specialized knowledge and often long and intensive preparation including instruction in skills and methods as well as in the scientific, historical, and scholarly principles underlying such skills and methods, maintaining by force of organization or concerted opinion high standards of achievement and conduct, and committing study to a kind of work which has for its prime purpose the rendering of a public service.

2. Participation for gain or livelihood in an activity or field of endeavor often engaged in by amateurs.

3. Following a line of conduct or assuming a role as though it were a profession.

4. Characterized by or conforming to the technical or ethical standards of a profession or an occupation; manifesting fine artistry or workmanship based on a sound knowledge and conscientiousness; reflecting the results of education, training, and experience.

**Ask yourself, “Are you a PROFESSIONAL?”**

It depends on the individual: how serious are they about teaching; how much do they pursue knowledge within ski or snowboard instruction?

Be aware that maintaining a professional image starts with the snow sports school director, assistants, and supervisor. Give your staff definite guidelines in expected personal behavior and acceptable limits. Insist that your whole staff be professional in appearance and conduct. Naturally a fresh appearance with clean clothes, neat haircut, pants at the proper height on the waist, and well maintained equipment tends to give a good impression between student and instructor and your fellow instructors.

The instructor should also be courteous to snow riders on the mountain. Talking to customers while in the lift line, riding the chair lift with them, being friendly in the lodge and answering questions at ticket windows are all examples of courteous behavior. “Self-selling” should be used commonly as a method in selling to generate more snow sports school business. This involves contact with customers, a discussion during a chair lift ride, in the lodge, or in the bar after being on the hill. Naturally, during every class, as instructor is selling him or her self as well as the technical material, and snow sports school, whether he and she are aware of it or not.

**PUBLIC RELATIONS**

Public relations are an extension of human relations to the many outside groups or “public” which have attitudes and opinions about business. These include the press, magazines, the community, the customers, and stockholders. It is the
function of public relations to tell outside groups about the company in an attempt to learn public understanding and acceptance.

The achievement of good public relations, as stated by one large corporation, is “a continuous and never-ending process.” The corporation elaborates by saying that good public relations “are accomplished only by hewing resolutely to its objectives so that all its publics gradually and steadily accumulate an overall favorable impression of the company. Only thus can corporate reputation be established which is proof against adversities.”

**PERSONAL RELATIONSHIPS**

To generate friendly personal relationships with students, “people skills” are a must for the instructor to develop. The instructor must learn to SMILE. Customers react positively to a smile. Eye contact is also very important. The development of good people skills is an “art” and should be included in the instructor’s professional training.

Teach instructors to be interested in each customer, giving their customers personal attention and understanding their needs and wants during the lesson. Sincere concern can and will create a bond between the instructor and the student, lowering fear levels and generating a positive atmosphere.

In conclusion, instructors should know the importance of making skiing and snowboarding appealing to their customers, and be creative in their approach. I feel we need to acknowledge that public relations are part of our job as a professional instructor, when teaching a class or not. Showing good public relations out on the hill, giving directions of runs to ride, helping a fallen or struggling fellow snow riders, all reflect courtesy, good public relations, and professionalism. It also pays off in an increasing number of customers to the snow sports school.

We are all ambassadors on or off the hill. Let’s make the ski/snowboard area a friendly and enjoyable place to visit!

Yours in Skiing, Steven

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Steven Davis is a PSIA member for 36 years. He has college degree in Physics, Bio-mechanics, Kinesiology, Anatomy, Skiing.

This picture was taken at 14,000 feet on White Mtn. The valley below is 4500 feet which he went down to. Mammoth Mtn. is in the background.
9-volt batteries power our smoke alarms, household items and toys. They can be found in most homes. But these batteries can be a fire hazard if not stored safely or disposed of with care.

The problem

- 9-volt batteries can be dangerous. The positive and negative posts are close together. If a metal object touches the two posts of a 9-volt battery, it can cause a short circuit. This can make enough heat to start a fire.
- It is unsafe to store 9-volt batteries in a drawer near paper clips, coins, pens, or other batteries. Do not store common household items such as steel wool, aluminum foil, and keys near 9-volt batteries. If these items touch the two posts, there is a greater risk of a fire starting.
- Weak batteries may have enough charge to cause a fire. Some fires have started in trash when 9-volt batteries were thrown away with other metal items.

Storing 9-volt batteries

- Keep batteries in original packaging until you are ready to use them. If loose, keep the posts covered with masking, duct, or electrical tape. Prevent the posts from coming in contact with metal objects.
- Keep them someplace safe where they won’t be tossed around.
- Store batteries standing up.
- 9-volt batteries should not be stored loose in a drawer. Do not store them in containers with other batteries.

Disposal

- 9-volt batteries should not be thrown away with trash. They can come in contact with other batteries or pieces of metal.
- 9-volt batteries can be taken to a collection site for household hazardous waste.
- To be safe, cover the positive and negative posts with masking, duct, or electrical tape before getting rid of batteries.
- Some states do not allow any type of battery to be disposed of with trash. Check with your city or town for the best way to get rid of batteries.

Your Source for SAFETY Information

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Training

“Warming up” on the Steeps

By Witold Kosmala
PSIA-E Alpine, Level III
Ski Instructor, Coach and Trainer mostly in NC

Why would I take my first run of the day on a double diamond slope? Here are a few possibilities.

• Because it is all downhill from there, ha, ha, ha.
• Because I am crazy.
• Because on a busy day that might be my only free run.
• Because others might be motivated and encouraged to come with me. (Perhaps not a good idea?)

Actually, the main reason is that I do not consider my first run a “warm-up” in the usual sense. It is not a warm-up of muscles, which is done before even coming to the slopes, but a warm-up of movements. Steep slopes automatically correct the movements – or else .... Look at the photo below. Jim Hanson is making an incorrect side stepping on flat slope. Do you suppose he could do this on the steep? No, a steep slope would insist that Jim side-steps onto corresponding edges.

Here is Jim Hanson (Alpine Level 3, Children Specialist 1, Area Resort Trainer, Trainer Academy) trying his best to illustrate how some beginners do side-stepping. In case it is hard to see, Jim is reaching from his left leg up this gentle incline with the inside edge of his right ski. (Illustrated corduroy actually goes up behind Jim as well as off to his right side.) Of course, we all know that this is not a correct way of doing this, but none-the-less, wrong also seems to work at times. But, not on a steep slope! (I had to really pay Jim a lot so that he would be willing to be photographed in this position – OK, just kidding. He is willing to help no matter what it takes.)

Actually, my main reason for starting my day on a steep slope is because I can feel the angles. On flats the angles are so small that they can be easily overlooked. Take a look at the illustration on the right, done by Konrad Kosmala. For a very little move with my feet, the upper body has to move a whole lot in order to stay perpendicular to the steep slope.

The same goes for a turn initiation when crossing over. That move is very pronounced.

How about angulation at the end of a turn?
Everything on a steep terrain has to be exaggerated. It is so much easier to feel these moves over the ones on a gentler slope. So, that’s why I go there. Besides – doesn’t “flying” feel really good?

In this very spot, I am on a 45-degree incline, (5 inches over and 5 inches higher with the left leg). I could not possibly put my left ski on its inside edge. Shows that steeper incline can teach a good technique.
As an on-snow professional, you know how much you depend on your knees. We can help protect them.

Only KneeBinding has proven ACL protection - all without sacrificing performance. We offer industry-leading elasticity, responsiveness, leverage, edge-grip, and retention. We have cantilevered brakes, configurable ramp, precise toe-height, the widest mounts, the most stable platform, and the ONLY floating mount system for “flat” skis.

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Ski Better.
And still be able to walk to your car.
Pressuring Toes

By Witold Kosmala
PSIA-E Alpine, Level III
Ski Instructor, Coach and Trainer mostly in NC

When standing around, all toes are pressured to the boots’ soles simply by standing on them as we lean against boot cuffs. Boot should be stiff and should not easily be bend forward from this point on. That is, we are in the correct skier’s stance with properly fitted boots. Note that soft boots will make it difficult to properly pressure toes down.

When skiing, since we are usually turning all the time, the moment when we pressure ALL the toes down actually happens for a very short time. We always roll our feet from the big to the little toes and back. In fact, this rolling is usually very fast making us think that we pressure only big toes or little toes. And when the pressure on a big toe is down, the little toe on the same foot is up. Actually, I am not expressing myself correctly. This pressure on the big toe alone is NEVER down while skiing, except as the pressure rolls from one side of the foot to the other. The pressure is normally into the corner of the boot. Let me make this clear.

In the last few issues of Peak Performance Gazette you saw me pulling (or resisting the motion) a skier in a wedged position down a gentle incline. It is given to you again below. I am in the red boots. Can you see how my big toes are pressured? Do they go straight into the boot sole or more into the corners?

This photo of me (in red boots) with Victoria Wioskowski, was taken by Anna Katherine Hartgrove – both ladies of Beech Mt Resort, NC. I am pressuring corners of the ski boots on the big toe side.

How about if I just stood there in a reversed wedge facing up the hill? Wouldn’t I feel the same pressure as pictured? So, I encourage you do just that so you can experience this sensation. It is crucial to skiing. Pressure applied in this fashion when skiing down a hill

• puts pressure on the tips of the skis
• it screws the ski into the snow (ice) at the top of a turn
• it decambers the tips of the skis
• it moves your body forward
• it moves your outside ski backward
• it prevents ski from jetting
• it creates smaller platform angle
• it gives the outside ski a “bite” and stability,

and the list goes on.

Since we, the instructors always want more drills and more ways to experience the same idea, let me give you few other options in which the above described toe sensation becomes obvious.

Did you ever skate on skis? Of course you did. Did you feel how the pressure is distributed through your toes in your boots?

Here are tracks left from skating in a fluffy snow. Can you see the shiny portion of each track where the push took place? Just think what the skier’s toes had to do.

How about the herringbone maneuver? Aren’t the toes driving into the side of your boots as you step on them?

My brother, Andrzej demonstrates herringbone when climbing a gentle incline.

Perhaps you recall seeing the photo with my boot placed through an analog clock. There is always a talk about where a skier needs to pressure their boots, but one has to realize that it is not just the shin they are talking about, but all this applies to the foot below as well. Do not just stop with the shin. Let the pressure go all the way to the big toe. So, think that you have an analog clock under your toes as well, with 12 o’clock under the middle toe. As you ski, you roll your toes through all the hours between 2 and 10 o’clock. However, the pressure at 2 or 10 o’clock should be actually directed into the sidewall of your boot.

This application of pressure is not actually automatic because if the shin presses the inside of the boot at 10 or at 2 o’clock, the foot in a loose boot will actually want to slide away in the opposite direction due to leverage of the leg on the top edge of the boot.
You should try it before you go on the lift. Take for example the left leg. Apply pressure at the 2 o’clock position against the boot cuff. Does your foot slide sideways toward the 8 o’clock? But, you want your big toe to pressure side of the boot at 2 o’clock as well. This is not so very easy. A little counter-intuitive.

To practice the sensation of moving pressure between 8 o’clock and 2 o’clock, perform the task illustrated in the second photograph in this article. So, I am sliding backwards holding Victoria by her poles. If we get going too fast, I need to apply pressure on my left leg at 2 o’clock, (and similarly with the right leg at 10 o’clock.) Then we might slow down too much, so to get moving faster this pressure needs to be released – I move toward the 8 o’clock in my left foot.

This is the reason why my toenails keep causing problems and pain. During the ski season, they get all messed up and often infected. They improve over the summer and get pretty good by October, and then it is time to put ski boots on and mess them up again.

Important: note the difference between pressuring toes into the corners of the boots versus lateral pressuring of the whole foot.

Try standing across a slope, try side-steps, side-slips, hockey stops – things of that nature. Here the whole foot tips sideways. There is only little of this going on while actually normally skiing.

My brother, Andrzej standing across the slope getting ready to go, exerts lateral pressure on his ski boots as well as with his feet inside them. But, when skiing, he will have that pressure more forward in the corner of his boots.

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**Bottom of Wedge Christie Turns**

*By Witold Kosmala*

*PSIA-E Alpine, Level III*

*Ski Instructor, Coach and Trainer mostly in NC*

In the March issue of *Peak Performance* there was a question in the Thoughts for the Month section, and I quote: “When a student wants to move from skiing in a wedge to skiing parallel, often the tail of the uphill (inside) ski gets caught in the snow. (This is when matching takes place in wedge Christies.) What causes that and how would you fix this issue? Are there benefits that can be drawn out of this situation?”

I will try to answer these questions, and then some, in this article.

The inside of the uphill ski will get caught for several reasons. A few are listed below.

- Over-rotating upper body causing the hip to swing out over the outside ski. This is when the hip is used for turning. Hips are square with the outside ski. See the photo on the next page.
- “A” frame position of the lower legs, that is, when skier has knees close together and feet apart.
- Skiing in an excessively wide wedge.
- Skiing too slowly, where forces from the snow do not cause skier to keep the hip inside of a turn.
- Being in the backseat.
So, now what do you do with a student that has this issue? In my opinion, basically, there are two ways to fix this problem: permanent or temporary. Do you take care of the wound or just bandage it up? Do you fix the leaking roof or just the spot on the ceiling?

Here are some quick temporary cures.

a. Go faster. This way skier will have to resist larger forces resulting in keeping hips more inside of the turn. As the result of the hip location, (maybe inclination or angulation), inside ski will be flatter and easier to move laterally.

b. Lift the inside ski and place it next to the outside ski.

c. To avoid big lifting which may be hard to do for beginners, just make several small taps with the whole uphill ski or perhaps only its tail. Just tap, tap, tap the problems away.

d. Make a narrower wedge.

e. Use shorter skis.

f. Start matching before you get to the fall line.

g. Use skis with catch-free rocker in the tails.

h. Do other drills to fix the catch, like garlands.

While some suggestions above are good, wouldn’t it be more constructive to fix the root of the problem? For instance:

1. don’t swing the hip out to the outside of a turn.
2. don’t over-rotate the torso.
3. stand on balls of your feet or/and toes.
4. don’t squeeze knees together.

Now, here is a test for an instructor – that is you. If you have a student that has #1 as a problem, what would you do to help them fix it? What 3 or 4 step progression of tasks would you have them do that would help eliminate this problem?

What if your student had the above-mentioned problem #2, where the student was rotating their whole body, and due to that, their inside edge was going on a high edge and matching could not happen? What would your teaching progression be for that?

Can you do the same for problems #3 and #4?

Now go to the lines labeled a – g above. Why would those suggestions perhaps eliminate the matching problem, but not cure the underlying cause?

Next. Here are some benefits of catching tails for more advanced skiers who might not realize that they have need for improvements in their fundamentals. Ask that more advanced skier to show you either an entire wedge Christie or just the matching part of it at a VERY slow speed. See if they have a problem with catching tails. If they do, then this will speak to them louder then you possibly could.
Test Your Visual Accuracy

By Witold Kosmala
PSIA-E Alpine, Level III
Ski Instructor, Coach and Trainer mostly in NC

Often, people look – but don’t see. Or they look, but don’t know what they are supposed to see. Is a picture really worth a thousand words?

On the right is a picture printed on page 12 in the March issue of Peak Performance. This is a photo illustrating the beginning of a left turn in a wedge at a really slow speed, appropriate for the very beginners. Does this photo speak to you? What does it say?

Can you see the following?

1. Since this is at a very slow speed, the weight is pretty much equally distributed between both skis. (This is huge, because it indicates that talking about pressure to beginning skiers is often unnecessary and often confusing. The only way they can put more pressure on the outside ski is by lateral tipping or lifting the other ski off the snow. This will make the pressured ski flat, making pivoting possible, but not steering. Surely no one would expect them to angulate at this level. Besides, why would they want to?)

2. To turn left, the rotary movement is in the right leg. Steering is performed with the right foot. (This is also huge. Many beginners do not recognize that their right ski already points to the left, so they should use that one to make their left turn. Activity is in the right leg. The left leg just sits there for support.)

3. The right leg is just so slightly tipped onto the inside edge. (This is huge as well because this way pivot point can be closer to the right boot. If the edge is high, then all they can do to turn is slip out their tails – a bad habit.)

4. It is already visible, but will become even more visible when the turn continues, that the tip of the left ski is ahead of the right. Inside ski leads the way. (This encourages leg’s pressure on the boot at the proper angle. This means that the pressure is not exactly forward on the right boot cuff, but more to the inside. And more, the ski boot of the turning ski is behind the left one.)

5. Left ski is flat, so it can move out of the way. (Again, huge. If it is on the inside edge, then it will block the turning forces. Note that being in a wedge, it realistically cannot be on the outside edge.)

6. Flat left ski indicates that my hip does not move over the top of the right ski. (This is so huge, because if the hip did move like that, then it would indicate hip over-rotation. This means that the right ski would become flat and start sliding sideways while inside tail of the left ski will get hooked in the snow. Some serious skidding, right? See article on page 18.)

7. Flat left ski also indicates that my knees are not squished together. My stance is relaxed, comfortable.

8. Tips of the skis are not too close together and size of the wedge is average. Too big wedge makes it hard to turn since inside edge angle of the inside ski would be too large blocking the turning.

9. Since the pictured event occurs just past transition, and skis actually want to turn downhill, this maneuver is not really that hard to do.

10. Snow is relatively loose so this photograph illustrates the movements. But, these movements should be the same on a firm surface as well.
11. This photo also illustrates that in this situation, it is impossible to have a pivot point directly under the outside boot or in between the boots because the whole front of the ski would have to dig into the snow on the hill. And, even if you really tried, how much force would you have to exert on the tips of the skis in order to laterally drive them into the hill? Besides, why would you want to, any way?

12. Could this be a turn initiation in wedge Christies as well?

What else do you see? Oh, yes, of course: nice graphics on these skis. Ha, ha, ha.

OK, so how did you do? Did you see what you needed to see and then some? And, if in real life you were not to see in a skier’s performance what you should see, do you know what is wrong and how to fix it?

How about if one of the bulleted items is not satisfied? For example, suppose #5 is not happening. That is, what would you do if you had a beginning student trying to turn to the left in a medium size wedge, but their left ski was on a too high of an edge?

You could try to remove the possible causes. So you could try the beginning skier to

- separate knees in order to keep legs more parallel to each other
- make wedge narrower
- keep hips between the skis
- not to tip the upper body (to either side)
- remove fear or need for use of bathroom.

These things may be hard to do. How about making a move that overpowers the blocking left leg and correction becomes automatic, like

- increase the speed
- make a turn possibly to the other side first so skier can get reorganized
- ask them not to squish knees together (put your fingers under the tipped left ski and ask the skier to press them into the snow with their ski, or put your pole next to their left knee and ask them to push against it.)
- have them put 2 side-by-side fists between their knees
- have them open up wedge wider with the right leg.

**Perhaps one more try.....**

On page 12 of the Feb. issue of *Peak Performance*, there is a sequence of steps performed when executing a bullfighter’s turn. Look at the first move that I am making given in frame two, which is to the right of the first frame on the page. Here they are again. (Photos were taken by BJ Mickel-Close of Beech Mtn. Resort in NC.)
OK, so my first move from frame one to frame two is with the right leg. Did you notice that? Is that important? And, the rotary move is very small so that my skis will not cross in the front.

But, could I have made the first move with the left ski instead? After all, don’t coaches preach about not pushing out the tails up the hill? Wouldn’t it be more appropriate to move the left leg first and point the left leg more downhill like in proper wedge Christies we would do?

My answer is that my move with the right leg first is better for this particular activity. Keep in mind that novices mainly use this kind of a turn. More advanced skiers need to know mechanics of bullfighter’s turns, but they can often turn the indicated way with no poles or just by hopping over. Thus, in view of a novice student, whose movements are slow and rigid, you would not want them to first move their left leg when turning as on the photo – to the left. The reason is that since they cannot cross the tails of their skis (they might at first, but then they bring that ski back and try again), their left foot will end up closer to the poles then initially it was. This will likely make their support on the poles less secure. Their arms will not be extensions of the poles any more. They will feel slipping onto their pole. To increase their security, likely, they will pull out their pole with an attempt to put it into the snow further away – more downhill. But, by the time they do this, (since their movements are slow,) their skis will slide forward and more serious problems begin.

In addition, moving the right (correct) leg off of the edged left downhill ski, which is across the hill, gives the beginner a sense of security. More – placing it even further from the pole makes their body perpendicular to the slope and stable.

So, did these pictures speak to you loud and clear? Surly there are other things to see that were not pointed out. What are they???

**Turn to Wisdom**

- Not anyone can become a great skier, but a great skier can come from anywhere. (Do you know this quote pertaining to a great artist?)
- Every person that you meet knows something you don’t; learn from them.
- Living would be easier if men showed as much patience at home as they do when they’re fishing.
- Some people succeed because they are destined to, but most people succeed because they are determined to.
- A man is rich according to what he is, not according to what he has.

**Deep Stuff**

What is Easter all about?

**Thoughts for the Month**

- What does a shopping cart have to do with skiing?
- What are some differences between AWD and 4WD cars?
- What creates higher edges towards the end of a cross-over turn: angulation or inclination?
- Why do beginners look down at their skis?
- Why is your ski outfit so very important?
Elaborations on last month’s Thoughts for the Month.

**Question.** What is the difference between “ability” and “capability?”

**Answer.** Human ability, in my opinion, is a trait, or something you have at birth. People are born with different levels of ability to do certain sports or to solve complex problems. Capability, in my world, is the development of that ability to its fullest. (A personal opinion, not an authoritative statement answer was given by: Keith Li, PSIA-E Alpine, Level III, Trainer and Supervisor at Roundtop Mtn. Resort, PA.)

**Question.** Can you list locations of all aerial trams in the US?

**Answer.** See article on page 6.

**Question.** Is there a particular way that ski boots should be placed in a locker?

**Answer.** Since I like my boots dry, I would be very careful how I place boots in a tight locker next to my skis. First of all, I scrape as much snow off of my skis as possible. I try to place them in a locker so, due to other lockers banging around, my skis will not slide around. Since the melted snow will drip and possibly bounce off of the other ski or whatever else is there, I would put my boots upside down, up high preferably. Best is to hang them in some way, or brace them so they do not fall. If they fall, they might land in such a way that the water will drip into them. Good luck!

**Question.** Many of you know that I like to take my first warm-up run on a double diamond slope (if one is open) and ski it as slow as possible. Why would I want to do that?

**Answer.** See article on page 13.

**Question.** When a student wants to move from skiing in a wedge to skiing parallel, often the tail of the uphill (inside) ski gets caught in the snow. (This is when matching takes place in wedge Christies.) What causes that and how would you fix this issue? Are there benefits that can be drawn out of this situation?

**Answer.** See article on page 18.

**Question.** Is it easier to turn when skiing in a big wedge or in a narrow wedge? Explain.

**Answer.** Usually easier in a narrow wedge. You can have a whole body over-rotation and still be able to turn – is that good? Your hips can swing out on each turn, and you still will be OK – is that good? But, just because you can manage to turn, doesn’t mean you are ready for steeper slopes or harder snow conditions. See article on page 18 in this publication.

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**This and That**

**CAN YOU BE IN THE BACK SEAT AND STILL PRESSURE YOUR TOES DOWN?**

This question was presented in the February issue of *Peak Performance Gazette* in the Thoughts for the Month section. I shined some light on the answer in the last issue. But my light is still shining, and I wanted to shine it some more your way.

When you drive a car, you press gas pedal (perhaps to the metal). This means that when you are in the (back) seat (from the skier’s point of view), you are pressuring your big toe. So, it is possible to do. But, in fact, bad for your leg. Don’t you feel a more relaxed leg when using cruise control feature? Why do you think truck drivers suffer with pains and cramps in their right legs? Because they tighten their right leg for very long periods of time.

Runners and walkers, especially on hard surfaces, can develop a severe pain in the heel of their foot, called plantar fasciitis. It is often caused by tightness of fibrous band of tissue, called fascia, connecting the heel bone to the base of the toes. Pressuring toes down when sitting back can be one cause of this condition. The same is when lying on your back in bed resulting in dropping toes, especially after exercise and luck of stretching. This can get especially pretty painful when getting out of bed in the wintertime when heavy covers push down on the toes when you are lying on your back. Wearing a special boot to sleep in is the best way to heal plantar fasciitis.
Good news is that we, the skiers, can avoid the lower leg and foot issues by simply “moving” forward on our skis to the correct spot.

Let me be more careful. When we talk about pressuring toes down, we actually mean down AND to the side. Look at the article on pressuring toes in this publication on page 16.

**WHO IS TO BLAME?**

Someone told me that a person in their beginning ski class had skis on where one ski tip was forward, but the other ski’s tip was facing backward. Should we blame a Rental Department for this since they sometimes put skis tips to tails as illustrated and hand them to the guest?

The Bottom Line

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