Due to an influential recommendation, we are changing the title of our Newsletter publication to carry a new name: Peak Performance. My son, Konrad, will continue to produce this publication. Many thanks go to him for all his time and expertise.

Our Peak Performance will be sent out to all the e-mail addresses that are on file, and it will also be posted on my Appalachian State University Web page. You can check out all our publications and direct others to do the same at the address:

www.mathsci.appstate.edu/~wak/

The Fall season will start later this month, and yes, we will be skiing later that season. So, what are YOU doing about it? Are you getting ready? Are you setting goals for yourself and the rest of the ski/snowboard industry? Are you making plans for attending any PSIA/AASI events, any exams? Are you studying? Are you getting physically fit for the new season?

Education

The Score: 300 to 1 (Against Us)

By Gordon Carr
PSIA-E Alpine, Level II

I thought I’d follow up on Witold’s July Newsletter article which discussed some of the more “mental” aspects of snowsports performance and instruction. Certainly we are involved in a “motor” sport using muscular movements to effect a snow-ski/board interaction. But I am continually surprised by the impact which
“mental” activities have on both the learning of and performance of snowsports (and all other sports too).

Why the title of “300 to 1 (Against Us)”? First, Witold is correct in that it takes at least 300 CORRECT repetitions of a newly learned motor movement to develop “muscle memory” and to perform the movement “unthinkingly and automatically.” But, under certain circumstances, you can learn an inefficient or incorrect habit or bodily movement almost instantly (incorrect in the sense of a movement antithetical to your desired sport outcome e.g. a ski turn initiated with edging the skis by a diagonally forward and lateral movement of your center of mass). It is well established in the psychological learning literature that fear reduction or anxiety avoidance can lead to behaviors which are very rapidly learned and very, very hard to extinguish or change once learned. And, it is frequently the case that learning skiing or snowboarding puts “newbies” in an environment which fosters this type of fear/anxiety avoidance learning.

What is this circumstance? Well, one of the most natural, instinctual, behaviors we have as humans is to lean BACK AND AWAY from fearful environments, such as steep cliffs, sudden drop-offs, or seemingly steep (to learners) slick, cold, scary snow slopes. When upon initial glide of the skis, beginners lean back up the hill, we know as instructors they are inhibiting their chances of learning an effective way to turn and control speed. BUT they believe when they slowly fall backward up the hill, that they have AVOIDED A MAJOR DISASTER and the fall backward prevented impending certain DOOM and DEATH at the bottom of this terrible, steep slope! Thus, their anxiety and fear level is instantly reduced, and the “leaning back” in these circumstances is reinforced and learned almost instantly as a way to “save your soul”. “Leaning back” then, as fear avoidant learned behavior, becomes very difficult to change or extinguish. Incidentally, this ubiquitous principle is why it is easier to teach sport movements correctly than it is to change incorrect and inefficient sport muscle movements in a person who has been skiing, ice skating, rollerblading, swimming etc inefficiently for a long time. It just seems that many correct sport movements are counter-intuitive, but the self-limiting, incorrect movements seem like more natural bodily reactions…odd, isn’t it?

So, we in our teaching (and in our own snowsport performance) have to insure that correct movements are made correctly many times for desired motor learning to occur, but we or our students literally only have to screw up once or twice before we (and they) run the great risk of learning inefficient or incorrect movements reinforced by fear and anxiety reduction. Kind of unfair!! (The 300 to 1 against us point.)

The above learning scenario concepts underlie and emphasize the importance of “pacing” in our own progressive learning challenges and “pacing” in how we introduce new and more challenging terrain or maneuvers to our classes. By definition, in order to move up a level and kick it up a bit, we have to get out of “the comfort zone”. But, go too far too fast beyond our or the guest’s actual skill level and you run the risk of inducing high anxiety levels. This fear or anxiety if reduced by avoidant behaviors thru the use of an incorrect movements can lead to movement patterns which become ingrained and habitual almost instantly. The
“leaning back” or “rushing and skidding Z shaped turns” will become the usual way to control speed on challenging terrain and this pattern will plateau and become self limiting and restrict further skill development for both us and our guests!

Usually, moving out of the “comfort zone” involves both: a.) more difficult to perform skill movements; AND, b.) more challenging terrain upon which to use these new skills, two challenges introduced simultaneously. Once on the more challenging terrain there frequently is “no easier way down” as a bail out. So for our guests (and ourselves) CHALLENGE INITIALLY WITH NEW TECHNIQUE NOT MORE DIFFICULT TERRAIN! When it is possible we should introduce to our skiing or boarding guests more difficult skill movements to master on easier terrain which will prepare them for more challenging runs. These new movements if not performed correctly on easier terrain don’t necessarily lead to disaster. But, when performed in a basically correct way, we (or our students) in going to the more challenging terrain only have to focus on one new thing, the more difficult slope. For us it is good to have a mentor who is technically more proficient and knows the skills necessary for really difficult terrain challenges. (I guess we are the “mentor” for our student guests). He or she can guide our learning of the new skills so that we learn them CORRECTLY on comfortable terrain. We will then tend less to engage in inefficient, but anxiety reducing behaviors when we do “go to the big ones,” and therefore be less likely to learn limiting, plateau forming, bad habits applied repeatedly when the going gets tough.

So back to 300 to 1 Against US: Another way I look at this learning new sport behaviors is that there just seems to be a gazillion ways to do things incorrectly and inefficiently and only 1 or 2 ways to get it right! It doesn’t matter whether it is snowsports, golf, swimming, basketball, baseball and on and on, I know I can, and always could, screw things up in a bunch of ways versus getting in the correct, rather narrow groove. You know when you think about it and really analyze what it takes to hit a baseball the size of an orange moving at 85+ MPH with a round stick you wonder anyone ever learns it! Same with skiing down steep, slick slopes on two narrow (or one) boards! But we humans are amazing; we do learn complex muscle movements. And we do compensate with a myriad of other moves to keep ourselves balanced and upright when we have inefficient skiing movements. Just look on the trails sometime at how out of whack someone can be and yet still stay upright, moving down the hill! We can learn to ski or board on our own. And we can scrape down difficult terrain essentially in a series of linked, thrown sideslips. (Years ago, when trying out for a ski instructor position, I was hired, but told, “You ski poorly, very well!” How perceptive; I had been skiing for years and could and did scrape down most any trail anywhere. But I didn’t have a clue about the mechanics of efficient, modern skiing. I didn’t “learn how to ski” until I became a ski instructor and attended many instructor training classes. [Whether I have actually learned is still up for debate!] ) But when skiing or boarding with inefficient movements, simply surviving on difficult terrain, progress is limited, effort multiplies, fun diminishes and the risk of injury skyrockets.

But when we teach “newbies” the efficient movements and they get it, with just a little mileage they will be skiing or boarding right along side someone who has learn on their own
and has been skiing for a few years, but who has reached a limiting plateau due to inefficient muscle movements and will advance but little more. **So keep the faith…what we do in our learning classes does make a big difference!** We are important to our learning guests (and to our colleagues if asked to mentor them). Also for our own personal learning journey, look for a mentor who can guide us on that narrow learning path and who will help us avoid developing inefficient and advancement limiting movements.

See you all in November! THINK COLD AND SNOW

“A Move” or “A Position?”

By Witold Kosmala  
PSIA-E Alpine, Level III

We have to be very careful when we critique still pictures of skiers and riders. Often we look at a picture and say: arms too far back, knees bend too much, not enough angulation, and so on. Some of those comments may be correct, but others might not be. In order to pass a close -to-accurate judgment whether a POSITION of a skier/rider on a picture is correct or not, we need to know what the correct MOVES on skis/snowboards are. In my opinion, there are basically three types of moves: a correct move, a reaction move, and an incorrect move when a move is made by choice. Let’s talk about each of these.

If a move is correct, then it leads to a correct body position. That takes us to the next type of move – a reaction move. This is an automatic move that the body makes in order to avoid loosing dynamic balance. These should not be called incorrect moves. For instance, consider a person tripping while walking. To prevent a fall, they instantly react with arms and other body parts. If one was to snap a picture right after the person tripped, that person would look very funny, with arms off to the sides perhaps, one leg higher than it should be, leaning in who knows what direction. If we look at a picture like that, we might say that that person is making many wrong moves and they look strange. In reality though, if these moves were not made, the person would probably fall. So, these involuntary moves were actually correct. They were a response to something that happened before the picture was taken. Thus, the incorrect move occurred earlier, prior to what picture represents. When we watch people ski/ride, we should concentrate on their moves, not on their body position. A seemingly “good” body position, (whatever that means), may be inappropriate for a given situation, and thus resulting in a “bad move.” Note that on PSIA certification exams there is a module called “movement analysis,” not a “form analysis.”

The third kind of a move is a move that we CHOOSE to make. For instance, the very first move in order to put skis/boards in motion from a resting position. By the way, this is your most important move. All other moves, in succession, react to this move.

In the August issue of Newsletter, on page 9, likes and dislikes about pictured skier were requested. (The same is done on page 9 of this publication.) It was actually a trick to see if you
fall in a trap. Most of you that responded to me with your comments were not on target. We
cannot say that the second skier’s right arm is in an incorrect position. His move was proba-
bly involuntary, reacting to his little mishap right before the picture was snapped. Without
his move in the right arm, he would probably sacrifice the rest of his quality performance.

We need to remember that to every action there is a reaction. Action is voluntary and can be
correct or incorrect. On a picture a wrong movement of your toes, or improperly tightened
muscles may “look” correct. Reaction is automatically done by the body, which wants to
“save” itself. On a picture it may look incorrect. So, what do you think, should we throw
away all the still–picture–taking gadgets?

It Works for Me

By Doug Washer
PSIA-E Alpine, Level II
AASI-E Snowboard, Level I

“Ski (Ride) the Clock”

Your student has trouble making round turns? (Maybe you do, too?) Try explaining that a
round turn should be like skiing or snowboarding around a large face of clock. You could
make a turn that begins at 12 o’clock, and then “count the hours” until you reach at least 6
o’clock. (Needless to say, as you turn the other direction, you are turning from 12 o’clock
backwards to 6 o’clock).

Maybe you could complete a turn all the way to 7 o’clock? Maybe to 8
o’clock…?? The more “hours” in a turn, the more you slow down.

Next time you ski Whoopedoo, try to make some 8 o’clocker’s
(perhaps not feasible—but you can try!)

This idea will work at any level of instruction, and only takes about 1
minute to explain.

I like to tell the student that if he or she has trouble slowing down, then make sure the turns
are at least “finished” to 6 o’clock— and perhaps more. Explain that the speed gets out-of-
control when you only finish the turns to 4 or 5 o’clock. It’s as simple as that.
“Thousand Steps”

If you don’t know this drill for green/easy blue skiers, you should. It’s one of the basic drills for improving balance by guiding a “discovery” by the student that both legs (and feet) are used in skiing, and both can be used independently (given, of course, that the student has two legs).

*Thousand Steps* is to make continuously marching steps with your skis, best done by starting in a gentle straight run, and then making some linked and round turns.

I use this drill mostly with kids of 8 and older, and for adults who are reasonably athletic, but are “stuck in the mud” with a stiff-looking stance. Try it only on gentle terrain, such as the lower sections of Easy Street or Lower Flying Mile.

When you “demo” this drill, make sure you lift each foot with a steady rhythm, and high enough to show the student you are getting the ski off the snow (I like to exaggerate my movements, to make them more visible).

What can *Thousand Steps* do for the student?

- Improve overall balance.
- Reduce stiff leg movements.
- Create some edge angles—leading to higher skill levels.
- Eliminate having a “favorite” turning side.
- Put the skis into a parallel relationship, instead of a wedge.
- Give the student a little challenge, yet fun at the same time.
- Can cure “sitting back” position
- Help develop “steering” of the inside side
- Strengthen the legs
- Cure “over-bending” in the knees
- Help improve diverging ski habit (one ski moving away from the other)
- Help improve the “A frame” ski habit
- Help with “over-rotation” of hips during the turns
- Develop pressure awareness
- Help with shoulder “over-rotation”
- Create a rounder turn shape
- Help the skier “move with the ski”

The bottom line is that *Thousand Steps* is a cure for most every problem in skiing. One other thought on *Thousand Steps*… you can count your steps (1,2,1,2, etc.) to give the skis “equal time” in the air.
Health Course

Deadly Rays

By Witold Kosmala
PSIA-E Alpine, Level III

So…, what’s the thing that’s cozy and warm, brightens up a day, is impossible to live without, but causes wrinkles, age spots, freckles, skin cancer, and cataracts as well as a retinal disease that leads to blindness? The answer is very simple — the SUN, and indoor tanning beds. The sun can be very damaging to both the skin and the eyes. Most people are excessively exposed to damaging ultraviolet (UV) rays from the sun. This happens when we walk to the car, drive to work, sit next to a window, as well as in the shade, on cloudy days, and even indoors. Skin cancer is the most prevalent form of all cancers in the US, and in order to avoid developing any form of skin disorder, we must properly practice preventative measures. The most effective being of course – less exposure. But, being physically active, we spend many hours outside. To help reduce skin damage, we should apply sunscreen with a sun protection factor (SPF) of 30 or greater 30 minutes before sun exposure. It should be applied every few hours or after being wiped off the skin. We should definitely wear sunglasses with total UV protection. In addition, regular skin exams need to be performed. The benefits of vitamin D received from the sun need to be replaced by healthy eating and by vitamin D supplements.

UV rays absorbed by the skin accumulate over time. At a younger age they show up as a sunburn. Later in life, seemingly all of a sudden, one’s skin can develop discoloration, freckles, wrinkles, sagginess, stretch marks, and ultimately cancer. So while sun damage to the skin may not be apparent at a young age, it will definitely show up later in life. Look at older skiers. Some years ago, in stores sunscreen was a “seasonal” item. One could purchase it only during the summer months. So, without proper planning, skiers often ran out of sunscreen before the end of the ski season.

People that are more vulnerable to the harmful effects of UV rays are:

- those living closer to the equator and those living in mountain regions. There is roughly a 10% increase in UV intensity for each 1,000 feet of an increased altitude.
- those exposed to UV rays between 10 a.m. and 4 p.m..
- those using medication and ladies during pregnancy.
- those with fair skin, blond or red hair, and/or freckles.
- those that underwent medical procedures.

The effects of UV rays on the eyes are even more scary. Unlike most cells in a human body, the damaged cells of the lens of the eye are never repaired or replaced by the body. The proteins of the lens are never replenished, meaning that the lens cannot repair itself and the dam-
Damage accumulates over a lifetime. This causes cataracts and surprisingly enough, much of the damage to the lens is done while the person is young. There is more . . . . The thin lining of the back of the eye is called the retina. UV radiation causes retinal diseases which often lead to blindness. The risk for retinal damage from the sun’s rays is greatest in children, although the consequences usually do not become apparent until much later in life. Ultraviolet exposure is at its peak at high altitudes, snow-covered landscapes, sandy beaches, and near reflective bodies of water. Not all sunglasses are created equal. Expensive and polarized glasses do not always block UV radiation. Ordinary sunglasses and most children shades often make the situation WORSE. Dark lenses cause the pupils of the eyes to dilate, allowing more UV rays to damage the lens and the retina of the eye. Effective sunglasses must be measured to block 99% to 100% of UV rays.

We, the ski/snowboard instructors should not hesitate to educate our guests about the sun’s deadly rays, but we should also remember that we are in danger as well.

**Turn to Wisdom**

- “What counts is not the number of hours you put in, but how much you put in the hours.”

- “Don’t measure yourself by what you have accomplished, but by what you should have accomplished with your abilities.”

- “Share your knowledge. It is a way to achieve immortality.”

- “Never miss your chance to shut up.”

- “Never start a sentence with “I should’ve.””

- “Smart is better than lucky.”
Thoughts for the Month

- What are the differences between running down a hill and walking down a hill? Is there any connection to skiing?
- What are the differences between water-skiing and snow-skiing?

Sharpen Your Edges

Help the groomers out and solve this problem...

If 3 snowcats can groom the mountain in 4 hours, how long would it take 5 snowcats to groom the mountain?

(The answer is on the last page.)

Pictures Speak Louder than Words

What do you like or dislike about this skier’s ski technique?
Announcements

I am the Faculty Advisor and the Dry-land Coach for the ASU Ski Team. We normally have dry-land training sessions every Monday and Thursday. You are welcome to come and join us. We will do all kinds of fun things, not just pure strengthening. Please, contact me at Kosmalaw@bellsouth.net, or president, Ashley Auman ASU Ski Team <asuskiteam@yahoo.com> for more information.

- There will be a 3-day trial format for PSIA-E Alpine Level 2 and 3 exams, and two of these pilot exams will be scheduled during our upcoming season. Here is how it will work:

  If a person passes the first day's skiing, he/she moves on to the Modules, which is Part 2 of the Exam on the second and third day. Update credit is given if exam is passed.

  If a person fails the first day’s skiing, he/she can stay for the next 2 days for coaching and will receive update credit.

If anyone is interested in doing this, they should check the Events Schedule when it comes out in late September.

- PSIA-E alpine written exams for level 2 and 3 will now be given at the end of Part 1 Skiing exam, instead of at the beginning of Part 2 exam.
- PSIA-E is planning to make alpine skiing exams for level 1 more difficult than they used to be, so train harder.
- The deadline for the upcoming season scholarship fund requests is September 30th. See PSIA-E website for applications.
- PSIA-E/AASI members - Don’t miss out on the great year-round travel saving benefit you are offered at over 5,000 participating Choice Hotels affiliated properties including; Comfort Inn®, Comfort Suites®, Quality®, Sleep Inn®, Clarion®, MainStay Suites®, Suburban Extended Stay Hotel®, Econo Lodge® and Rodeway Inn®. It is easy to join the Choice Privileges rewards program. Go to www.choiceprivileges.com/signup/SKIED or call 1-800-258-2847. This a FREE program that allows PSIA-E members to get the "best of both worlds." Not only can you use your PSIA- E/AASI Special Rate Identification # 00802187 to get a 15% discount (better than AAA), but you can also earn points towards free room nights, airline miles and more.
- Every PSIA-E/AASI member will have access to a web portal giving you access to new features such as view & edit your profile, change your password, and renew your membership online. You will notice that when you access the thesnowpros.org and go to login, you will be directed to a new sign in page. To access this new portal for the first time, use your member id number as both your username and password.
Once inside, you can create a new password for your account by selecting the Change Password link.

- It is not too late for skiing in South America or New Zealand. Contact Mike at “Mike Simmons” <mds@i-americ.net> for travel tips since he often skis all over the world.

- Krista Schmidinger, a world-class skier, Olympian and traveler, is inviting whoever is interested to come and ski with her and her father, Elmar Schmidinger, in the beautiful Austrian Alps.

  1. When: March 12-22, 2010
  2. What: 5 day ski pass to be used within 8 days
  3. How: Roundtrip airfare from Charlotte to Zurich, Switzerland plus ground transportation from Zurich to Sporthotel-Sonne and vice versa
  4. Where: Montafon Valley (www.montafon.at), Austria: Accommodations at Sporthotel-Sonne (www.sporthotel-sonne.com/index2.html) (includes 9 nights/8 days, daily breakfast and dinner)
  5. How much: $2800 (subject to change based on exchange rate and price fluctuations)

They provide access to places hard to find on your own and you are treated like family. Start waxing your skis and reserve your trip today. Call 828-260-5637, or email schusstheworld@gmail.com.

- Event: Skiing in September. "Forget work, school, or any other commitments...b/c there is snow involved (sort of)"

  1. What: Workshop
  2. Host: Liberty University
  3. Start Time: Saturday, September 12 at 5:00pm
  4. End Time: Sunday, September 13 at 10:00pm
  5. Where: Liberty UniversitySkiing in September at Liberty University snowflex center (www.liberty.edu/snowflex/). I want to get a group together to represent the high country. Feel free to invite whoever you think might be interested.

$7 an hour from 5-10pm. Email hm68477@appstate.edu or call Ross McNeil 336-816-4720 for information.

- Teddy Bear Day is September 9. Are Teddy Bears named after “Teddy” Roosevelt? Also, September 13 is the Positive Thinking Day. We should exercise this policy everyday throughout the year, don’t you think?
On Saturday, June 6th, several Sugar Mountain instructors had a fantastic day on Lake James, at the home of Randy, Lisa, & Alex Wells. The weather and water were perfect, and the scenery was spectacular. The Wells’ home overlooks the lake, and has a direct view of Linville Gorge. The group spent the day water skiing, wakeboarding, jet skiing, kayaking, and diving off the two-story dock. A great cookout ended the day. Thank you Randy, Lisa & Alex!! Let’s do it again! (Photo by Will Mauney)

Marketplace

- FSBO Slopeside Bee Branch 2BR 2BA Condo on Sugar Mtn. Walk to slopes from back deck. 2 minute walk to Ski/Snowboard School. Furnished. Gas fireplace. Newly renovated. $185,000. Call Mr. or Mrs. Waters at 828-898-2267.

Answer to groomer’s problem:

2 hours and 24 minutes... and no, you do not get an explanation, though it could possibly be available for a certain amount of incentive.