

# ACTION! News

*The Newsletter of the International Association for Applied Control Theory*

**February, 2006**

## **Contents**

- IAACT News in Brief
- *The Carolina Connection*
- Reflections on *The Chicago Connection* Faculty Retreat
- Chili Today, Hot Tamale: An Exploration of Perceptual Control Theory
- Food for Thought: Ongoing Dialogue, Continued Learning
- The Oasis Within
- The Faculty Training Program
- Call for Contributions and Suggestions

## **IAACT News in Brief**

*By Scott Byerly and Mina Cook, Co-editors*

### **Welcome to the February, 2006 IAACT Newsletter**

In publishing this newsletter, IAACT's goal is to create a timely and user-friendly web-based resource that will reach a wide audience. But, in order to reach this goal, we need input and contributions from the IAACT community. Please consider submitting material to upcoming newsletters. Your short articles, anecdotes, announcements, observations, insights, and photographs or artwork are greatly appreciated. Your insight, both personally (e.g., your own growth) and professionally (e.g., changes you may have noted in how you relate to co-workers, students, etc.), is crucial to making this newsletter pertinent to the lives of its readers.

Submissions via e-mail are preferred. Electronically-submitted material may be typed directly into the body of the e-mail, or it may be attached in an easily readable format such as plain text (.txt), HTML (.html), Microsoft Word (.doc), or Rich Text (.rtf). *Submissions for the next newsletter are due by March 31, 2006.* Please e-mail submissions to Mina Cook at [mjcook@wsfcs.k12.nc.us](mailto:mjcook@wsfcs.k12.nc.us) or contact her directly via telephone at 336-413-4238. Please note that the editors reserve the right to edit any submissions, as necessary.

### **A Greeting from IAACT President Jeff Grumley**

Greetings! My name is Jeff Grumley, and I am one of the Senior Instructors in IAACT. It is my pleasure to serve as president for this next term of office.

Serving with me are Pamela Fox, Vice President; Denise Pappas, Treasurer; Lynn Taylor, Secretary; and Barnes Boffey, Professional Development.

I also offer a sincere and well-deserved word of thanks to the former Board members, with whom I served as Vice President: Shelley Roy, President; Glenn Smith, Treasurer; and Fred Good, Secretary.

For anyone living in the southeastern part of the United States, we invite you to attend the second annual *Carolina Connection* on March 2 and 3, 2006. Please see the news item below for more information about this year's event.

Please don't hesitate to contact me with questions or concerns about IAACT via e-mail at [jgrumley@insightbb.com](mailto:jgrumley@insightbb.com) or via telephone at 815-540-6352.

Let's stay connected!

*Jeff*

### **IAACT Board of Directors Meeting in Hilton Head Island, SC**

IAACT held its Annual Board of Directors Meeting in Hilton Head Island, SC on January 13, 2006, preceding a week of intensive seminars sponsored by New View Publications. The IAACT faculty discussed a number of issues, including faculty status, finances, officer elections, and improvements for the website, among others. The minutes from this meeting will be available on the website in the coming weeks.

The following day, William Powers conducted a one-day workshop for IAACT faculty and the ACT seminar participants. Powers is the author of numerous books about Control Theory and its applications; his books are available through New View Publications.

### ***The Carolina Connection***

Are you looking for practical application strategies? IAACT is sponsoring *The Carolina Connection* on March 2-3, 2006 in Greensboro, NC. Come see how real people -- principals, teachers, counselors, social workers, and drug prevention specialists use the ideas of Applied Control Theory and *A Connected School* to improve achievement and connect with students while dramatically increasing discipline referrals and suspension days.

These strategies are being used successfully in a wide variety of programs:

- elementary, middle and high schools
- ninth grade academies
- violence and bullying prevention
- alternative education
- substance abuse prevention
- character education
- school culture and climate reform
- closing the achievement gap
- truancy and dropout prevention
- criminal/juvenile justice
- creating connected communities
- inclusion

E. Perry Good and Dr. Jeff Grumley are the featured speakers, and professionals who are involved in implementing these programs will share what they are doing and how they are doing it. Each presenter will incorporate Control Theory into practical applications for a wide range of people and professions.

A block of rooms has been reserved at the Clarion Hotel in Greensboro, NC. All participants are responsible for their own travel arrangements and hotel reservations. The room rate is \$65.00 plus tax per night. Call 336-299-

7650 to make reservations, and mention that you are attending *The Carolina Connection*. The cut-off date for reservations is February 15, 2006.

For more information and to register for *The Carolina Connection*, please download the brochure and registration form. Cost and payment instructions are included in the brochure. The registration deadline is February 15, 2006.

## **Reflections on *The Chicago Connection* Faculty Retreat**

*Selected Letters from IAACT Faculty Members Barnes Boffey and Shelley Roy*

Dear Friends,

It was great to spend time with all of you in Chicago. I was reenergized and learned a bit more on my journey to understanding, applying, and developing Perceptual Control Theory (PCT) and Applied Control Theory.

Glenn Smith and I had an interesting conversation on the way to the airport about priorities and ways of thinking about training. Two major themes that run through the process for me are “information” and “transformation.” Part of what we are doing is giving people information, and part of what we are doing is creating conditions in which people can make personal transformations. Obviously, the two are related, and there are overlapping strategies that encourage both, but there are also certain conditions that should be created if transformation is really a primary goal.

Part of our discussion focused on how much we want to give people the instructional accoutrements of schedules, objectives, evaluation rubrics, and the like. These are all good if we are primarily interested in people being comfortable during the time they are receiving information, but if we are interested in transformation, then we also need to create conditions in which people are appropriately uncomfortable and uncertain. Too much certainty and they will never leave the realm of what is known and what is safe. Too little certainty leads to fear and the inability to open and risk, and that is also to be avoided. Once again, balance is the challenge.

And yet, until we can admit, accept, and, yes, even cherish the fact that our lives are uncertain, we will always want to control external conditions so that we are secure and safe. Real learning, however – the kind that leads to life-changing awareness – is the result of courage, letting go of old ways of thinking, and a willingness to hand suspended between the old and effective “was” and the new and as-of-yet formed “will be.” I don’t think we serve people well by giving into too many demands for certainty and predictability. We need to find ways to “nudge” the process along with compassion, courage, and clarity, always remembering that to go beyond reformation to transformation takes time, courage, and energy.

I think we should be thinking at some very profound level about school and institutional transformation rather than reform. Even if we have to live in a world where we don’t get everything we want, we need to be looking beyond just moving around the pieces of the puzzle to actually thinking about the nature of the puzzle itself. The world may say, “You can’t do all that right now; you need to just take it one step at a time.” The sad part will be if we internalize that message and take our eyes off the ultimate goal of dramatic paradigm shift at both the personal and institutional levels.

One of the discussions we did not have this weekend was about the nature of practicum instructions, and I think that may be a place where we should be more focused on our capacity to mentor, model, and guide. The ACTs are time-limited, inspirational, activity-focused, and curriculum-driven. Practica give us the opportunities we need to be more person-focused and allow us to use extensive self-evaluation and personal experience to increase the depth of knowledge and degree of effective application. If we move away from participants doing

practica, we will increase the demands of our ACTs in ways that may be destructive to the power and excitement of these marvelous four-day events.

Let's make sure we don't succumb too deeply to the Sirens of certainty, consistency, and linear thinking. If we do, we may lose some of the essential pieces of what we have done so well for so long: transformation, creativity, and creating relationships based on love, respect, joy, and freedom.

These are just a few ideas I had after our gathering in Chicago, and I appreciate the chance to be in an environment where thinking is encouraged and where we are always trying to improve quality.

Peace –  
*Barnes Boffey*

### *A Response from Shelley Roy*

I agree with Barnes Boffey; balance is the key. I think by providing people with a basis from which to start we will allow them to be more willing to risk the unknown aspects of the training. I have found that when this foundation is available for folks they are more willing to risk taking a step out of their comfort zone.

In the training that many of us provide, it is in the small group where we challenge people's thinking and only after they have some sense of safety in the group. For most of us, understanding the science is a challenge and taking risks to transform our teaching and practice has taken several years. If we are going to move to a less linear model, I think we will gain more transformation if we allow for more flow of content; when the instructor knows what needs to be introduced over the four days and moves to those topics as they naturally come up in a small group I find that participants experience much more growth and a willingness to let go. This requires trust and skilled instructors, which I believe we have in our organization. Here the difficulty is in balancing this when we are teaching in large systems and participants think "one size fits all."

I believe transformation occurs when a skilled instructor creates a safe enough environment and then takes each individual participant to the edge and perhaps a bit beyond. When the first role play is less linear and has fewer directives and more free flowing of questions without an expectation of a specific sequence is given, I have found that participants are bigger risk-takers and more willing to let go of the old. This also allows for the instructor to get a good idea of what each individual's next step might be.

I think we need to remember that each participant, like each instructor, is unique. That one size does not fit all and that we need to figure out how to provide information and help individuals transform their thinking . . . For example, it may appear to many that I am an abstract sequential learner/thinker. I am not. I am an abstract random learner and thinker, and I have had to over the years learn how to provide structure to my teaching. Otherwise the minute someone asks me an interesting question, I go off on a whole other topic. I also know that I have some learners in my audience that will not hear the information I have to share nor will they be willing to even take a baby step towards transformation without a somewhat stable platform from which to start.

Thanks to everyone for your willingness to participate, risk, and commit your time, money, and energy to an organization that I feel is on the cusp of greatness . . .

*Shelley Roy*

*Barnes Boffey and Shelley Roy are Senior Faculty Members of IAACT. Barnes is the author of Reinventing Yourself and My Gift in Return. Shelley Roy is a co-author of A Connected School.*

# **Chili Today, Hot Tamale: An Exploration of Perceptual Control Theory**

*By Pamela Fox*

Did you know that chilies get their fieriness mainly from a nearly flavorless, odorless alkaloid called capsaicin that is found in the spongy ball of tissue inside the top of the chili that the stem grows out of, as well as in the veins and seeds? Other capsaicin-related compounds round out the burning properties.

Flavorless. Odorless. Well, at least you can see them coming. And feel the oil on their skin. Some varieties, like the cascabel (a Spanish word that means rattle) do have little seeds that rattle around to warn you of a potential medium hot sting.

Maybe you have had some experience with chilies at Taco John's, in the bedrock of Tex-Mex cooking or with your mother's own chili con carne. Or maybe in some moment of depraved craving for new experience you have participated in an improvised chili eating contest. If you have had any experience with chilies, you have had some experience with Perceptual Control Theory and the negative feedback loop, its diagrammatical model. You already know a lot.

PCT is a theory that explains the behavior of living systems as the control of perception . . . what's going on inside the system in multiple layers of multiple feedback loops in order for the system to perceive what it wants from the information available in the environment. In the case of chilies, this poses a quandary -- nearly tasteless and odorless, what is it that we want from them? Some like it hot, I suppose.

So to explain the negative feedback loop, let's talk about chilies. I find it interesting that although chilies are essentially flavorless and odorless, whole schools of cooking which are not essentially flavorless and odorless have developed around them. Think about how you like chilies: grilled in a shish kabob, diced in a salad, stuffed and baked with meat or cheese. Sweet bells, jalapenos, poblanos for stews and soups, or the killer chilipiquines also used outside of the kitchen to discipline the lips of children who have used naughty words. You have probably had some experience with chilies. And if you really don't like chilies and avoid them at all costs, we can also consider that in terms of the control of perception.

How are perceptions formed? Within the feedback systems for our five senses we are set up with millions of input sensors that at the lowest level take in information: something is going on in here, what's happening out there? Or, what's happening out there, something is going on in here. It's the beginning of awareness.

There is a small orangey colored chili called a "haberno" coming originally from around Havana, Cuba. When you perceive one of these bullets from hell and its impact on the delicate tissues of your mouth by ingesting it, you perceive a lot more information than just "something is happening." In a feedback loop that controls for comfortable heat sensations in the tissues of the body, the neural signals have transmitted the information through several layers of perception: something is out there, there is a lot of it, and it's hot! Dios mio! I'm on fire! I'm calling the fire department! Perceptual input functions are "layers on layers of rows and rows of marvelous devices made of neurons, each one acquired to detect some particular thing, each one feeding its information into higher input functions and control of systems."

At the lowest level of perception "something is happening out there" but there is no output function that knows how to put out the fire. That can be directed by a higher level of perception and control where the system has had some previous experience with an overheated palate. But if this is your first time around with a habanero, you are going to store a neural signal in memory that will serve as a reference, a reference signal for future encounters. It might be something like "you know those little orange colored buggers named after Cuban cigars . . . well it's like glowing ashes dropping right on your tongue . . . Fuego! Puro fuego!!" Those habeneros have always been out there but not part of your perceived world.

Now if you want to keep things under control and enjoy the variety of Tacos for breakfast, enchiladas for lunch, guacamole with zing rapidly becoming available across the country from McDonald's to Gussies Tamales & Bakery, we need to talk about control. We experience the world through our senses as perceptions. The information builds on multiple levels with neural signals combining info to form "higher" (i.e. more complex) levels. We store those perceptions for future reference. We mostly enjoy the bounty of good food until we experience an error: this is NOT what I want happening in my mouth! Fire in the hole!!!

Believe it or not, the "error" can be experienced "the-other-way-to." This is NOT ENOUGH of what I want happening my mouth!! Do you know anyone like that? You invite the person out to lunch, chicken fajitas are ordered, the salsa and chips are served, the conversation is moving along pleasantly. The salsa made from the medium hot Jalapeno pepper just doesn't do it for your guest. "I like it really hot, especially midday." So, you check to see if there is there is a bottle of chiltepin peppers in vinegar available. If you aren't familiar with the chiltepin, let me describe this way. It looks like a little green sperm. Its name comes from the Nahuatl, an ethnic word that means "flea" because of its size and quick sharp bite. The mesero has been able to locate the chiltepin, your guest pours it on, and digs in. The face flushes deep red, the tears are streaming down the cheeks, the eyes glaze over. Gasping for air, " Dios mio!! This is great!! Muy muy bien." Meanwhile a customer at a nearby table has flipped out a cell phone to call 911, fearing a cardiac arrest in development and havoc breaking loose. Next time you suggest that you meet your friend for coffee at Starbucks.

So sometimes to "achieve control" of a new perception you have to determine if the perception (what you are experiencing) that corresponds to the reference signal (the memory) is too much (call the fire department) or not enough, (bring on those little green spermy things) or just right.

Reading this error signal is what the "comparator function" does in the feedback system. It produces a neural signal that "indicates whether the current value of the perception is less than, greater, or equal to the reference signal." (Bill Powers) The error signal sends its message to the output function.

The output function is another neural device which selects the lower level systems that might best correct the error being experienced and tells them what to perceive. "Water!!! Ice water por favor!!!" The comparator function sends the error signal message to the output function of that control system which tells the lower level systems to change the perception by acting on the environment.

So, you grab the ice water and take a gulp. New sensory information. You taste of it. You register the temperature of it. You feel the consistency of it. This is all sensory info that the perceptual input function combines and sends on to a higher level of perception, meaning more complex. You form a new perception of what is happening on those delicate tissues, and compare it to the reference signal, your memory of that idyllic sweet bell. And what happens? Things have not gotten better. No. You are now perceiving hell fire and damnation! At least that's how you label this new horrific perception of certain chili peppers. You learn (at a higher level) a new experience: cold water + chili pepper oil in the mouth does not = relief. You store this searing perception somewhere in memory, and it becomes a reference for future outings to the local taco stand, if you don't die first. If it's any comfort, you have gained a new reference at a higher level (meaning more complex level).

FYI: If you do get caught in the firing line, how can you put out the flames of a really hot chili?

"Nothing much helps, but milk, yogurt, and ice cream do some good. A substance they contain called "casein" breaks down the capsaicin that has formed with the pain receptors in the delicate tissues of your mouth."

So let's say you now want to avoid the perception of certain chili peppers on your palate. Again from Bill Powers, "You generate a reference signal and send it to the control system that controls that perception, but you make the value of the reference signal very small." A little of that capsaicin alkaloid, but not more than the mildest hint, a whisper of those old timey summer sweet bells. You learn a new perception and set a new

reference. As you gain “ability” to convert the error signal of this tiny amount into actions, you act on the environment to keep the error very small. You might either become “the picky eater of the family” or the best qualified judge at the Kane County Fair entries for sweet bells. You act on the environment to change your perception of what you are experiencing in comparison to what your reference signal generates: how much of this do I intend to perceive?

So where are we? Behavior is the control of perception. It’s about how we are comparing a reference signal, a stored memory, to how we are currently perceiving information inside our system from the outside world. As we experience new sensory information and learn new perceptions we set new references at higher, more complex levels. These references guide the actions we take to reduce error. It’s something like making the complicated “mole poblano,” a velvety cooked salsa served over juicy chunks of chicken.

“Mole” is a word that means mixture. “Poblano” refers to the city of Puebla, Mexico. The story is a woman wanted to impress a visiting dignitary and entice him to stay. He’s long gone, but we still have this slowly simmered amazing salsa (and a myriad of variations) that wraps itself around the taste buds with such subtlety that I forget what I’m talking about.

At the base it’s made with the pasilla chili, the ancho chili, and the New Mexico chili.

Already the cook is controlling for the perception of three variables. Sensory information from three different sources, three different feedback loops. And when combined (after the chilies have been roasted and ground) and stirred and heated in chicken broth a new perception is experienced, learned, and a reference set. Add the blanched almonds, and you add another level of experience to be perceived in the salsa. If you helped make it in your grandmother’s kitchen, you may already have a reference, a memory of “what’s the right amount” of the 3 chilies + almonds. If this is the first time taste testing this salsa in progress, you check it out. You learn a perception. You remember it and store it as a reference signal. Then, one layer at a time comes the ground cinnamon, the clove garlic, the sesame seeds, the pine nuts. Each is stirred in separately and heated slowly. Each combines with the previous ingredients and as you taste, you perceive a new experience that you compare to a previous stored reference, a stored neural signal we call memory, if you have taste tested it before. If not, as the ingredients are added, you experience a new perception of the salsa. Now, by this point, it takes information from lower level systems combined to experience a perception that would match the reference signal for mole poblano. And you still haven’t melted in the one ounce bitter chocolate.

Yes, dark bitter chocolate and butter and chili peppers cooked down and ladled over chunks of chicken simmered in broth. A festive holiday dish. What’s your reference here? You may have one for dark chocolate, but it probably doesn’t match what we are talking about, and you may be experiencing some error. Testing the salsa at this point however, you could learn a new perception for the “final touch” and store it for future reference. When it’s your turn to be the cook or the taste tester, you compare your perception of the mole to the reference signal sent from memory. and act on the mole to correct any error.

But it’s tricky...when it’s time to add the chocolate, you can’t go back and re-roast the chilies at just the right temperature to get them ground into a crackling fine powder. If the error is small enough as you compare your perception of what’s cooking to how you intended it to be, you may set a new reference: this is the way I want it so I save time at the chili-roasting level. Now if you haven’t figured it out yet, at the chili-roasting level you are in a different feedback loop . . . when you check the perception of those newly roasted chilies as they crumble into toasty flakes, it’s by experiencing them as the feel, dry and flaky against the tougher skin of your finger, not by chucking a handful into your mouth. Many feedback loops at many levels are involved in the control of a perception.

It’s something like tasting mole in final stages. You can’t make the comparison without all the levels of ingredients in place, without having had perceived them previously and stored them in memory. And you can’t compare the taste of the total recipe to the memory of total taste of the recipe if you never did it before. As we

experience new perceptions, we “work with them,” get familiar with them, combine the new information, “fold them in” as we say in the kitchen, and set new references.

You begin to see the complexity and the simplicity of the negative feedback loop that explains a living system acting on the environment to reduce error between what it is perceiving and what it intends to perceive. It’s easy to simmer it down to one “loop” for discussion purposes, but a living system is a network of many feedback loops operating on many levels.

If in the final taste test you experience a large error having invested hours of time preparing the mole, you might just chuck the mole-in-progress and start over. Or head for the border at Taco John's. While you're there take a minute to remember that at the base of this national franchise of fast food Mexican style is the enigmatic chili, essentially tasteless and odorless.

*Notes: Gracias to Mr. William Powers for his work and notes cited here; the Texas Monthly magazine, December 2004, “Some like It Picante”; and the Sunset Mexican Cookbook.*

*Pamela Fox is a Senior Faculty Member and current Vice President of IAACT. She is the author of Teaching Control in the High School Classroom. Pamela currently lives in Mexico where she uses the ideas of PCT to maintain a business and provide educational and business opportunities for employees.*

## **Food for Thought: Ongoing Dialogue, Continued Learning**

*A Collection of Conversations between William Powers, Shelley Roy, and Becki Walker*

“If you have superior physical force at your disposal and set no limits on what you are willing to do to other people to make them behave as you wish, you can control them all you like. The only reason Gandhi prevailed was that British soldiers sickened at slaughtering unresisting civilians and refused in the end to do it. If the soldiers' own consciences had not sickened them, Gandhi and his followers would have been wiped out, and what they wanted would have made no difference. There is no natural law saying that one person cannot control the behavior of another.

"Those who are controlled in such ways comfort themselves by saying that the control never touches their inner selves, their thoughts and aspirations. But the controllers don't care about their inner selves; they care only about what affects themselves, which is the behavior produced by other people. Think whatever you like, they say, but do what I tell you to do or I'll find someone else who will, after disposing of your body.

"That, I think, is what we call Evil. It mocks human nature. It's unsettling to find our side doing it as well as the other side.”

*---Borrowed from a post by William Powers to the MOL site.*

*NOTE: An ongoing conversation between William Powers and Shelley Roy regarding this quote resulted in the following definition of coercion: “Coercion is the control of someone else’s action by force or threat of force.” For more information, visit [http://groups.yahoo.com/group/MOL\\_PCT\\_2005](http://groups.yahoo.com/group/MOL_PCT_2005).*

Dear Shelley,

I came to training in Chapel Hill over the summer and another teacher from my school and I were talking about our discipline policies in our classroom and how they didn't exactly flow with control theory. So, when we got

back from the training, another teacher from my team who was also there and I decided to try to come up with something else. Our previous system was a level system where the students had to move their level and the only punishment we had really was having them walk the track at recess so we knew that we had to throw that out.

Now that we created our social contracts with our classes, we focus on fun, safety, respect and responsibility. So we decided to make a small table and keep it on a clipboard with the four tenants of our social contract, one in each square. We decided that, if a student was not following the social contract, she/he would sign her/his name on the clipboard and it would be up to the students to make it better, at which time they are allowed to erase their name from the clipboard. Then, on our communication logs that we send home each night, we made another table (we're just crazy about tables!) where the students color the box containing each of the tenants they maintained that day. (Ex.-- If they didn't sign the clipboard at all or if their name was removed after signing, they could color all four squares.) Our problem is that we are having a hard time with truly feeling like they are getting it. They are first graders and it seems like they are unable to come up with good ways to make things better, but we really want this to work because we feel like the results could be really powerful in terms of their motivations. It has only been a week, but we have an especially trying group this year in terms of disabilities and maturity. Any ideas??

*Becki Walker*

Dear Becki,

Always great to hear what folks are trying. Moving the evaluation to the students is a great step. Keep in mind that this is probably new to them. Changing patterns takes time. Most of the adults in their lives have been making the judgments about what's right-wrong, good-bad etc. as well as "how to fix it". I too am a chart/table fan. I think visuals help students in many ways. You said you feel they "aren't getting it". Is the "it" in this case, ways to return to the group strengthened and closer to being the student they said they want to be? I have a couple of suggestions; you might try a couple of role plays (acting things out) with the students, preferably before it happens. Typical scenarios that a name would be written on the sheet . . . then brainstorm with the class by asking "What might I do in order to erase my name?" This may be unexplored territory for some of them, especially if the adults in their lives have been big on "Telling!" If it's between two people you might have them ask the other person, "Today when we were on the playground I think I was mean to you and I don't want to be mean, what can I say or do that would make it better?" How about asking them how they think it's going. "So how do you feel like writing your name and trying to fix your own problems is working? Is it helping you take more responsibility for your actions?"

Are they doing any longer term evaluation of progress? Like keeping track of how many times they fill in all four squares... some questions you might ask while they are doing this are: "So what's one thing today you want to give yourself credit for doing?", "Compared to yesterday how did you do?", "What's one area tomorrow you want to work on? - How might you do that?", "As a whole class how would you rate our day?" (Be careful with this last one, as they may get into naming others, but this might be an opportunity to teach them how to talk about the whole class without naming names.)

Please don't forget modeling, if you haven't been the teacher you want to be . . . talking about it aloud . . . "You know yesterday when you were working on your assignment and I was trying to talk with Mrs. Smith and I turned around and said . . . 'Can't you see I'm trying to have a conversation here!!!!', I wasn't being the teacher I want to be. I don't want to be a teacher who is sarcastic" (might not be a 1st grade term, but you get the idea). "I feel like I haven't lived up to our agreement, so I'd like to take the next few minutes to . . . (I find it difficult myself to think about how I might repair the relationship with the students . . . so I can see why 1st graders would have difficulty.) Maybe I could say "give each of you a compliment." We have a culture based on the idea that saying "I'm sorry" erases the action, when in reality it is a nice place to start . . . somehow remorse for actions has garnered a lot of support, but all of us know it usually isn't enough and I'm not sure how much long

term impact it has other than adding to a failure identity. I think most kids know internally when they did something that was a "mismatch" from the agreement. We've just taught them to rely on others to let them know and tell them how to make it right.

Anyway, hopefully one of these ideas or an idea that they triggered will help. Keep me in the loop on this.

By the way, have you given yourselves credit for all of the changes you're trying to make? Is what you're doing helping you become the teacher you said you wanted to be? You see evaluation needs to happen just as much when things are working as when they aren't. It's just easier to recognize the *when it's not*.

*Shelley Roy*

*Shelley Roy, a Senior Faculty Member of IAACT, is a co-author of A Connected School. Becki Walker is a first grade teacher at Lincoln Heights Magnet Elementary School in Fuquay-Varina, NC. She recently completed an ACT I intensive seminar.*

## **The Oasis Within**

*By Shelley Brierley*

*With Many Thanks to Bill Powers and Judy McFadden*

### **Understanding The Loop & the Controlled Variable**

I am writing this from "Down Under" in Australia after teaching a Thinkers & Method of Levels Workshop in conjunction with the Association for Applied Control Theory Australia (AACTA) Committee. I found Tim Carey's recently published book, *The Method of Levels: How to Do Psychotherapy Without Getting in the Way* to be a very helpful text. I would recommend it for those wanting to understand this model, what it looks and sounds like in an interview, as well gaining a clearer picture of how the individual's thinking can be tracked with the theory. My thanks to the AACTA Committee for hosting my trip to Australia: Judy McFadden, Don White, Jenny McFadden, Agnes Barna and Maggie Farago, Fran Willis and also to the Hatswells for their hospitality.

In preparation for The Thinkers & Method of Levels Workshop and to make sure I had a clear understanding of the Controlled Variable, I had emailed Bill Powers a number of scenarios (. . . no it is not the control variable!!!). In my travels and dialogue with other faculty -- many of whom are not often in attendance at the CSG Conference, IAACT Conference or some of the current weeks being taught -- it appeared to me that I was not alone in looking for clarification. In creating a number of scenarios, I found I am closer to understanding the pattern involved in spotting the various aspects of the loop. The more we, IAACT members, have a common understanding of the base of Perceptual Control Theory, via William Powers, the better we will be at disseminating this very valuable information to others. For this reason I have chosen to submit a couple of the scenarios, along with my understanding of the same.

To understand how one loop operates, imagine doing a "Freeze Frame" in time, regarding any given scenario. What we are going to consider is a split-second glimpse of the dynamics involved in a number of situations. As we know from Perceptual Control Theory, we control for perception. We only know the "world out there" partially and indirectly via the signals we perceive. We attempt to perceive the look/feel/sound of the world as we know it (including our bodies) as the hoped for image/sense/sound we want or expect (in our minds). Really, they are all just energy waves, neural signals, being interpreted by each of us in our own way based on the patterns we already know.

Using the idea of a "freeze frame", the Reference is the term we use for the hoped for state, what one wants to see, hear and feel in the instant. Input is what we call the information being perceived by the system through the eyes, ears, nose, skin, etc. The system Compares the Input to the Reference and the difference is registered as what we term an Error, which has neither positive nor negative, only different. Remember, we are speaking only of an instant in time. Increased Error means there will be an increase in Output. The Output is the Action that is in the environment, which is then perceived by the individual as Feedback or Disturbance (depending on whether or not that Action is asked for or wanted). The Action is what we do or think in order to control ourselves, others or the situation. The Controlled Variable is what is being controlled, in the instant, in order to create the match with the Reference) . . . We behave to create the match between the Reference and the Perception. When they match, there is no Error, and no need to Act, as this part of the system would then be balanced!

An example Bill used was as follows: If you're driving a car on a wide highway on flat land, with wide lanes, you can afford to let the car drift a little to the left or right without making big efforts to keep its path absolutely straight. Your output is relatively low because errors don't immediately produce large actions. It's not "important" to stay exactly centered. But now imagine driving along a narrow one-lane road on a mountain ridge with a steep drop-off on both sides. Now it's much more "important" to keep the car as far from each edge as possible, meaning EXACTLY in the middle. What you do is increase your output so that a much smaller error is enough to create the same output actions as before. The result is that the error stays much smaller, and your output actions come into a much closer balance with disturbances.

The output is the action you use to control something. Depending on the level you're talking about, the output might be simply the push, pull, twist, or squeeze you apply to some object (or person), or it might be some indirect but reliable effect of such outputs, like pressing a button or steering a car (to get to the store). It might be the words you say, sending them out into the world.

The output has effects on the world. Many effects, not just one. But among those many effects there may be one effect you're interested in. Driving a car uses gas, makes noise, wears out tires, gets in the way of fire trucks, and changes your location in space. If you're talking at the level of "going shopping," the effect you're interested in controlling is where you are in space, with the reference position being "In the parking lot at the grocery store" and the initial perceived position being "In my driveway at home." The action that does the controlling is driving. If you examine that output action more closely, you'd see it is made of control actions as well, which adjust lower-level perceptions such as the position of the car in its lane, but from the higher point of view those details simply add up to the action you apply to the world to make what you're controlling change (or not change) as you intend.

So the Controlled Variable is different from the Reference and also different from the Action . . . and not really a mirror image. The action is your output. It affects the controlled variable, but so do other influences that we call disturbances. A control process varies the Action so it cancels the effects of disturbances on the Controlled Variable, and in addition, changes the Controlled Variable enough to make your Perception of it Match your Reference for it.

When we extrapolate the science of PCT to relationships, it is important to remember there are trillions upon trillions of "loops" and millions of references. The key is to remember that relative to our interpersonal relationships, at this point, all we can do is extrapolate from the theory, considering the "Freeze Frame" or the instant in time. In such situations one can ask "What am I controlling or attempting to control?" I perceive my focus at any given level (relative to Powers "Levels of Perceptions"), and then, in an instant, the reference can change and all the systems below that level readjust to match the reference now being controlled for and everything else changes along with it.

You may have heard of the term "Circular Causality". What it means is that it is not input causing the output but the output causing the input. Of course this is only a simplistic version as output from any one loop, becomes

the reference for the lower levels and the information from the lower levels flows upward to the various levels of each loop. There are hundreds of millions of loops operating in the system at any given instant in time.

Lets take a simple example.

DINNER = I want a nice dinner.

Reference: is a nice hot dinner.

Error: is the difference between my reference (nice hot dinner) and my

Perception: (controlled variable = nice hot dinner Not on the table).

Actions: some options to act on my controlled variable are:

1. making my own,
2. yelling at partner,
3. saying please, please get me some dinner
4. shifting reference perception to a hot drink which I have in front of me which would mean there would be no error (or very little) and therefore very little behaviour other than drinking the hot liquid.

The actions are meant to change the state of the Controlled Variable (CV) from "No Hot Dinner On Table" to "Hot Dinner On Table".

Suppose we pick a different aspect of the dinner to be the CV. For example, suppose there was a nice hot dinner but it was still in the kitchen, not on the table. What would the variable then be that needs controlling? It would be the difference between "the hot dinner in the kitchen" and getting it "on the table". What action could be used to change the state of the CV so it matches the reference of a nice hot dinner to the table. One could get up and bring the dinner to the table for one's self, or yell for someone else to bring it to the table, or one could "wish it" to the table. (Some behaviours are more effective than others in affecting the Input.)

If we change the reference so it is a nice dinner on the table, but we perceive it having become cold, waiting for people to arrive. Now what might the CV be? It would be "No HOT dinner on the table". A variety of actions could be used to control the variable of "No HOT dinner on the table": re-heating the dinner, start cooking a new "nice Hot dinner" or, yell for someone else to start all over with the cooking of a nice hot dinner and bringing it to the table.

OK, that's it for now . . . I need to go and make myself some nice HOT dinner! I hope your understanding of "the loop" is a wee bit clearer or at least, if your experience is like mine, you are thinking some new thoughts and asking some new questions!

Special thanks to Bill Powers for cross-checking this article to assure congruence with his understanding from the scientific perspective of Perceptual Control Theory.

Love, Laughter and Learning in the Light --

*Shelley Brierley*

*Shelley Brierley is a founding instructor of IAACT and is the author of the upcoming book The Circle of Strength. She has presented in several countries over the years, including the United States, Canada, Australia, Indonesia, and Ireland. Ms. Brierley may be reached via e-mail at [info@thecircleofstrength.com](mailto:info@thecircleofstrength.com). Visit her website at [www.thecircleofstrength.com](http://www.thecircleofstrength.com).*

# **The IAACT Faculty Training Program**

*Edited by Barnes Boffey, with an Introduction by Mina Cook*

## **So, you completed ACT IV . . . What's next?**

### **PROFESSIONAL DEVELOPMENT and TRAINING PROGRAM**

After completing certification, many people ask the question, "What's next?" For some, the IAACT faculty training program is the next logical step.

"My interest does not lie in raising parrots that just rehash 'their masters voice,' but rather in passing the torch to 'independent and inventive, innovative and creative spirits.'"

*Victor E. Frankl*

### **FACULTY TRAINING PROGRAM**

Our goal is to create a process which is congruent with our beliefs as an organization and with the principles of Perceptual Control Theory. Where difficult decisions had to be made, we hope we have opted for those choices which are based on trust, flexibility and creativity, and a desire to preserve and enhance our professional association as well as the individuals within it.

### **FACULTY LEVELS**

There are currently four levels of faculty in IAACT:

- Act I Practicum Facilitator
- Act II Practicum Facilitator
- Act I Instructor
- Act II Instructor

There are competencies developed for each of the above levels, and we have designed the program so that competencies build one level upon the other. We have agreed, therefore, that faculty will move through the levels in sequence.

### **MENTORS AND FACULTY ADVISORS**

For the sake of clarification, we have differentiated between faculty advisors and mentors. As faculty advance through the program, they will be choosing two faculty advisors to help them develop a program to fulfill the competencies for each level they aspire to. This is a special long term relationship in which the advisor agrees to serve as advisor, counselor, preceptor, teacher, instructor, tutor, monitor and proctor. Faculty advisors and participants will be expected to negotiate with each other as to any financial arrangements involved.

Mentors, on the other hand, are persons with whom the participant works in a less formal manner, generally to learn a specific set of skills or to experience new ways of teaching. Various people may add breadth, depth and understanding of Applied Control Theory as they serve as mentors.

Mentoring is a process which we see as part of our professional responsibility to improve the organization and the quality of everyone's teaching and learning. When we mentor, there is no expectation of financial

remuneration. A participant will have two faculty advisors at each level, but there may be many mentors who assist in that process, and they will serve as the primary contact between the participant and the organization.

## **FEES**

The issue of fees has been discussed carefully, and we have tried to keep fees at a reasonable level. Training program entry and exit fees go to IAACT to support its operations and develop the quality of the Association which we all represent. These fees are not part of the financial arrangements to be negotiated with faculty advisors. These are administrative fees to support the Association supporting us all. Also, because faculty status gives someone an opportunity to generate revenue representing IAACT, these nominal fees above can be recouped quickly when faculty status has been achieved. All checks should be made out to "IAACT."

## **THE FACULTY TRAINING PROCESS**

To enter the Faculty Training Program, the first step is to send a letter of intent to the Chair of the Professional Development Committee designating the level being aspired to. Upon receipt of the above letter, the applicant will be sent the current competencies for faculty programs and a list of all current IAACT faculty. The next step is for the applicant to find two faculty advisors to assist him/her in developing a program to meet the specified competencies. It is our belief that the quality of our association will be enhanced as we continually develop a shared understanding of our core beliefs, our knowledge of applied control theory, and our common desire to not only teach these ideas, but to live them. In line with this belief, one of the major goals of the Faculty Training Program is to create caring and collegial relationships among our faculty, leading to an appreciation and respect for various perspectives, personalities, and teaching styles. As a variety of role models and learning experiences are necessary to achieve these goals, we have agreed:

1. At least one of the faculty advisors must be new at each level. (A policy is also being discussed which would stipulate that in the interests of providing many kinds of experiences, that no faculty advisor could work with a participant for more than two levels.)
2. Faculty advisors must be at or above the level aspired to.

When the participant has agreements from 2 faculty advisors to help him/her develop and co-evaluate program competencies, the participant must submit those names and the following "Program Entry Fee" to the Professional Development Committee.

Level Aspired to:	Program Entry Fee	Program Exit Fee
ACT I Practicum Facilitator	\$100	\$100
ACT II Practicum Facilitator	\$100	\$100
ACT I Instructor	\$200	\$200
ACT II Instructor	\$200	\$200

(In situations where the above amounts present a hardship, payment plans may be negotiated with the PDC.)

Upon acknowledgement of program entry fee and faculty advisor choices, the participant and his/her faculty advisors will develop an advising plan and program of study to achieve and demonstrate competencies at the specified level. Duration of program, specific learning activities, use of mentors, financial remuneration, and program content are all negotiable between the participant and faculty advisors. When all three have agreed that the competencies have been met, a letter of completion should be submitted to the PDC accompanied by the appropriate program exit fee.

## **PROFESSIONAL DEVELOPMENT COMMITTEE**

The Professional Development Committee of IAACT is charged with facilitating the process of developing, clarifying and communicating policies and procedures for faculty development which reflect the overall desires of the membership. In general, the committee seeks input from the membership in order to develop policies that will lead to quality. Final policies must be approved by the IAACT Executive Committee and Faculty.

For more information, please contact:

Dr. Barnes Boffey, Facilitator for the Professional Development Committee

113 True's Brook Road

West Lebanon, NH 03784

603-298-1010

Barnes\_Boffey@alohafoundation.org

## **Call for Contributions and Suggestions**

The IAACT Newsletter contains both regular features and special articles submitted by IAACT members. We invite all IAACT members to send us their observations, insights, news, and announcements. Submitted articles should be reasonably brief. Please understand that due to formatting constraints and the editorial process, articles may be edited and/or truncated as necessary.

We prefer submissions by e-mail. Electronically submitted articles may be typed directly into the body of the e-mail, or they should be in an easily readable format such as plain text (.txt), HTML (.html), Microsoft Word (.doc), or Rich Text (.rtf). Newsletter submissions should be sent to [scott@iaact.com](mailto:scott@iaact.com). Thank you for your cooperation, and we look forward to receiving many responses.