FROM THE CHAIR

Dr. Larry Christensen, who has chaired our department since 1994, had planned to retire in Sep 2014. A search was conducted in the spring, during which we received 5 applicants, of which one was interviewed, but unfortunately negotiations did not result in an acceptable outcome, leading to a failed search. Thus Larry will continue as Chair until Sep 2015. He stresses, however, that this is absolutely his final year! After retiring, Larry plans to work on a new book that will summarize all his research on food and mood and placebo effects.

Larry also reports that, after a lengthy process that began years ago, our integrated CCP (Clinical & Counseling Psychology) Doctoral Program has attained accreditation by the APA (American Psychological Association). The big event occurred in OCT 2014. We were approved for a 7-year period, which is the maximum time given before another review. Now we can look forward to accepting incoming students with much stronger credentials, and our outgoing PhD students will be eligible for internships that were not previously available to them. Our Experimental Masters Program will also be beefed-up this coming year, as we undergo a self-study examination at both the grad and undergrad levels, using the guidelines of the APA. Self-study of non-accredited programs is mandated by SACS (Southern Association of Colleges and Schools).

MANY THANKS to the USA FOUNDATION!

Dr. Elise Labbe, Director of Clinical Training for the CCP program, reports that the following 6 PhD students are receiving USAF fellowships:

- Alyna Chambers & Paige Naylor are working with Dr. Labbe in health psychology research, specifically with cancer patients at MCI and with blind people at the Alabama Institute for Deaf and Blind.
- Channing Sofko & Anneliese Boettcher are working with Dr. Ben Hill in neuropsychology research.
- Shane Kuhlman is working with Dr. Philip Smith in suicide and trauma research.
- Rachel Hoadley is working with Dr. Kim Zlomke in parent/child interaction therapy research.

PARENT/CHILD INTERVENTION THERAPY: TRULY TRANS-DIAGNOSTIC

Dr. Kimberly Zlomke (Psychology Clinic Director) is collaborating with Dr. Brenda Beverly (Speech Pathology & Audiology) to apply Parent/Child Interactive Therapy (PCIT) to treat behavior problems and language delays in children with autism. PCIT was first used to teach parents how to deal with negative or destructive behaviors in children. Therapists view parent/child interactions through 1-way mirrors and communicate with parents about how to respond to the child’s behavior. For example, suppose a child with autism is having difficulty in naming objects. The child is given a ball, but just can’t get the right word out “baaa………..”. The treatment involves initiating an exuberant verbal exchange with the child, such that the parent points to the ball in a very exaggerated way, while repeating with much vim and vigor, “Ball, yes, that’s a ball, yes, a red ball, a big red ball!” Up to 20 therapy sessions are conducted, and therapists measure the total number of words spoken by the child and specific parent behaviors for later precise quantitative analysis. Parents can earn up to $100 for completing the entire program. Kim happily reports that intensive therapy does work, but she also stresses that it must begin early!

Kim directs the research of MANY graduate students: Jillian Murphy, Kathryn Jeter, Garet Edwards, Emily Corley & Rachel Hoadley. All projects focus on either parenting or autism or the combination thereof. Kim & students have presented their research at numerous national conferences, and have a manuscript of PCIT preliminary results under review. Additionally, Kim continues to fund and supervise graduate students in several community placements such as AlaPointe and the Alabama Department of Human Resources.

LANGUAGE DEVELOPMENT AT HOME: Kim loves observing the language development in her own children. Here’s an interesting exchange between mother KIM and daughter CECILIA (3 ½ years). KIM: “We’re going to visit Miami this year.” CECILIA: “How many more sleeps until we go to Your Ami?” Meanwhile, daughter NINA (1 ½ years) is forging ahead in the single-word stage.
MEASURING STUDENT ENGAGEMENT

Dr. Chuck Brown’s newest version of his Introductory Psychology e-textbook has ever-more features to encourage ever-more student engagement. He can now measure via a log-in process exactly when a student turns an e-page of the e-book, to monitor exactly how many non-class hours are devoted to e-study (see figure below). Note the spurt in activity just before the end of the term. (Very typical of most students, according to Chuck).

The hands-on stuff is fantastic! How to teach your students about the ear? In the figure below, the student clicks on an ear-part and an arrow points to the correct part.

How to teach your students signal detection? Well, simply have them DO IT! Chuck set up his word-recognition task for me: Words (e.g. UNCTION) or non-words (e.g. TUMERATE) appear randomly on the screen and I had to decide word or not. The program keeps track of HITS, MISSES, FALSE ALARMS and CORRECT REJECTIONS.

Here’s my actual data:

There is also a good bit of team-based learning, whereby groups of 6 students join together in projects. They rate their peers with questions like the following: “In what ways was your teammate MOST helpful to the team?” Or “In what ways could your teammate improve to be more effective?”

Chuck is also hard at work on his COMPARATIVE BIOACOUSTICS METHODS e-book. A truly international endeavor, it has chapters by 8 American researchers, but also 4 from Germany, 2 from Denmark, 2 from Canada, and 1 each from Australia, Italy and Japan. A reader can “click” to hear actual digitized animal sounds.

Finally, Chuck reports that all his own field recordings gathered over many years in Africa have been digitized and will now reside forevermore in the Cornell Laboratory of Natural Sounds. One of these days Chuck will get back to the monumental task of analyzing them to measure sound propagation characteristics in rainforest vs. savannah environments.
Dr. JLR and the Gulf Coast Behavioral Health and Resiliency Center have outgrown BLDG#3 of the USA Technology & Research Park and have moved to BLDG #4.

Dr. Jennifer Langhinrichsen-Rohling’s spacious suite shares the 3rd floor with many other new organizations and partnerships that work primarily outside the University setting. Her Center is supported with monies obtained as a result of a class action suit against BP for the Deepwater Horizon OIL SPILL in 2010. This economic settlement sends $105M to the four states of LA, MS, AL & FL. Jenny shepherds $8M for 5 years in order to increase the Mental and Behavioral Health Capacity of Lower Alabama.

INTEGRATED HEALTH CARE

One goal is to establish an integrated system of health care that will benefit all citizens of Mobile/Baldwin counties, whether directly or indirectly affected by the SPILL. Integrated health focuses on the interaction between physical and BEHAVIORAL health in relation to common medical problems such as obesity, blood pressure, diabetes, depression/stress reduction. Jenny says, “We care for the WHOLE person.” Jenny happily reports that an important administrative step to health care integration occurred when MEDICAID recently allowed more than 1 provider visit per day per patient.

EVIDENCE BASED THERAPY

The Center promotes the use of evidence-based therapies that have been shown through clinical trials to be effective. After training, the staff then goes into the community to ACT! These services occur both in Federally Qualified Health Centers and Mobile County Public Schools. For example, take Murphy High School, which was hit by a tornado on Christmas Day, 2012. Here, they have worked with academically at-risk students (with 1 out of 10 expressing suicidal thoughts or behaviors) who might benefit from BEHAVIORAL HEALTH Services. Referred students typically have poor grades and/or are often tardy or absent. Jenny’s staff provides brief interventions, groups, and community-based referrals to help students in need.

TEACHERS OVERWHELMED

The teachers are often overwhelmed and also need help so the Center offers Mental Health First Aid (MHFA) courses to teachers, counselors and administrative staff. MHFA introduces participants to the unique risk factors and warning signs of mental health problems in adolescents, builds understanding of the importance of early intervention, and teaches individuals how to help an in-crisis adolescent who is experiencing a mental health challenge.

THE TRIPLE-EEE APPROACH

In all clinical-community sites where the Center is operating, Jenny and her staff enact her TRIPLE EEE approach to behavioral health care: (1) ENGAGEMENT: Building relationships with stakeholders and getting buy-in that these programs will help the system. (2) EMBEDDING: Making these programs a functioning part of the system (e.g., Soccer and Football are already part of the school system, why not behavioral health?) (3) ENDURING: Getting these programs permanently established and financially sustainable. As all psychologists know, this is a quite difficult part of our profession!

MEANWHILE BACK AT THE LAB

Jenny reports that her MARITAL & FAMILY RESILIENCY LAB in the Psych Dep remains up and active – with ongoing involvement by both grad and undergrad students. Current studies include: Understanding Family Resiliency in Response to Disaster (Selena Jackson, Caitlin Anderson, & Kali Thompson), Financial Literacy and Resiliency in Under-Resourced Individuals (Aimee Var, Caitlin Anderson), Humor as a Component of Resiliency (Adrienne McCullars), and FACEBOOK Stalking (Tracy Weaver & Tiffany Poole). More studies related to Integrated Health are also in progress (Candice Selwyn & Keri Johns) as are many theses and dissertations. Jenny’s lab and its popularity continue to grow; this semester will see a new undergrad Eric Smith.

NEW CD TOO!

In conjunction with her doctoral-level resiliency seminar students, Jenny has compiled a CD full of popular RESILIENCY songs that will make you feel STRONGER in any set-back or disaster. This semester, she sent her graduate students out into the world armed with this gift!

FAMILY NEWS: Jenny’s son Ryan, now in the 8th grade, is in Step 1 towards making the Alabama Olympic Development Soccer team (more Soccer Mom travel for Jenny) and her two daughters are doing fantastically well in college. Ali is soon to graduate from U of Alabama in Elementary Education and Rosy is a Freshman at Amherst College in MA.
3 WISE MEN!! STUDY LANGUAGE PROCESSING

WISE MAN #1: Dr. Mark Yates is collaborating with Dr. Tim Slattery (see below) and Dr. Jack Shelly-Tremblay (see below) in a major project to understand individual differences in all aspects of visual language processing. Mark works at the single-word level and his basic tool is the SINGLE-WORD RECOGNITION paradigm. In one task called LEXICAL DECISION, P is presented with a series of letter strings on a computer screen. P must decide if they form a word or not, and RTs are recorded. From these data, Mark measures how individual differences affect processing. One variable among individuals is the quality of their ORTHOGRAPHIC knowledge (SPELLING ABILITY).

One way of measuring this is to have Ps spell difficult words like CONCILIATORY or ABSTINENCE, and measure how wrong they are in terms of the distance between the actual word and the P’s spelling. This is accomplished by using LEVENSHTEIN distance, which is a measure of the number of insertions, deletions, or substitutions needed to change one letter string into another. Suppose someone gave the incorrect spelling ABSTINACE for ABSTINENCE. The LEVENSHTEIN distance would be 1. An incorrect response of ABSTINACE would have a distance of 2 (change the last A to E and add an N before the C).

The goal is to determine how an individual’s SPELLING ABILITY (among other things) relates to RTs in the LEXICAL DECISION task. Mark sees some pretty interesting spelling errors, e.g. the word EUPHORIC is often spelled UFORIC or even YOUPHORIC. The nice thing about all these errors is that they add up to a wealth of data for comparison to word recognition performance. Will good spellers differ from poor spellers when it comes to visual word recognition? We shall see……. Mark’s students Nathan Rollins (grad) and Greg Overbeek (undergrad) are helping with these projects.

Stop by Mark’s office sometime and see his lovely new bubbling BLUE lava lamp, which has replaced his previous PURPLE one that sprang a leak. And check out his LSU fan, which flashes “LSU TIGERS” when turned on. On the family beach scene, Mark reports that son Quinn (age 3) no longer finds sand “yucky”, and now likes to build intricate sand castles.

WISE MAN #2: Dr. Tim Slattery is also looking at the SPELLING ERROR data in order to relate it to his primary interest of READING FOR COMPREHENSION. See the DUAL ROOT MODEL below, which can be viewed as a triangle:

The goal of reading is of course to attain the SEMANTICS (triangle top). When given the visual ORTHOGRAPHY (bottom left angle), one possible route is to first process the PHONOLOGY (bottom right angle) and then proceed on to semantics. This makes some sense because phonology is obviously a more innate and ancient language system for humans than orthography. But theoretically it’s also possible to access semantics by going directly from orthography to semantics (as the crow flies so to speak) and thus bypassing phonology altogether.

So what do individual readers actually do? Do good readers and bad readers have different reading strategies? Do good spellers and bad spellers have different reading strategies? Furthermore, it would seem that, at some level of processing, individual reading/spelling ability could also be related to the individual’s word-neighborhood networks, as measured by Mark’s single-word recognition paradigm (see above).

Tim also studies more complex reading tasks such as: (1) What determines how short vs long words are skipped in reading, (2) How important is context in reading short vs long words, (3) How does all this relate to good vs bad spelling ability? Tim stresses that most likely there is NOT one system of normality in reading. His ultimate goal is to help different types of readers by devising remedial reading tasks based on each individual’s underlying mechanisms.

And what about WRITING ☝️ while we’re at it? Can the phonological channel also be bypassed here too? Oh it’s ALL SO COMPLICATED! On Oct 23 2014, Tim received a USA award for his all-encompassing psycholinguistic research 🍀.

WHO NEEDS BOOKSHELVES NOWADAYS? Tim is filling up his office bookshelves with toys that he and his 7-year old son Michael may (or may not) have outgrown. There are Darwinian evolutionary figures, lots of Lego blocks, rubric cubes and other manipulative puzzles, an Albert Einstein action doll, and a Starwars/Darth-Vader/Death-Star candy dish. Tim clarifies that the latter is filled up with nuts, not candy.
WISE MAN #3: Dr. Jack Shelley-Tremblay studies the route to semantics via the brain’s ERPs (evoked response potentials). He is most interested in the differences between LEFT (LH) and RIGHT (RH) hemisphere word processing. The LH is best at mapping the strength of associations between concepts. For example, if someone says MOP and you think CLEANING, that’s the LH at work. If someone says MOP / WIG, and you think THEY LOOK ALIKE, that’s the RH at work. These two different types of word coding seem to be reflected in hemispheric structure, since the LH has very densely packed neurons, while the RH is less densely packed. Jack also applies his ERP work to applied research on EPILEPSY. Typically more scrutiny is given to LH surgical operations to reduce epileptic seizures, because traditionally the LH is considered more important for language function. Jack wants to start mapping the RH as well. Humor / inference / intonation / music: These cognitive processes are equally important and “add richness to the world”.

Jack is also working in the Department of Physical Therapy studying how the visual environment affects upright posture. P stands on a forceplate that can measure movements in the joints and bones of the feet. A camera also records where P is looking. In front of P is a wall that can be moved varying distances from P and can be viewed at different angles. (Jack is quite the handyman, he made the wall himself out of wood and green astroturf). If P looks at a 90 degree wall, her/his upright stance is very stable. But if the wall is slanted, s/he tries to compensate by varying foot positions. Jack uses the term EMBODIED COGNITION to describe interactions between brain perception and body posture. “We are stuck with the body while we think, so we might as well try to understand it!” says Jack. His labs (he has several) have always been a big hit with undergrads, and he has been the Director of Undergraduate Research since 1998.

INTERIOR DECORATOR TOO: Two interesting pictures adorn Jack’s office. I could tell the first was a MONET, because it looked blurred. Jack informed me that MONET was in fact partially blind, thus he painted exactly what he saw. (And all this time I thought MONET’s blurs were simply a stylistic thing!) The second picture was “only a print by some unknown artist”, but Jack really likes the way it captures depth perception. It depicts a cute little cozy cottage nestled on a mountainside, and Jack says someday he wants to retire in a place like that.

NEW SURVEY for NARCISSISM ❤️❤️❤️❤️

Dr. Josh Foster has devised a new survey to measure non-clinical NARCISSISM. The old way to measure this complex personality trait was to first collect the data, next factor-analyze it, and then try to identify the important traits from the factors. Josh’s new method follows a different sequence: First identify the traits, next construct the survey questions to tap into the traits, and then see how well the survey questions correlate between and within traits. Josh started with the old Narcissism Personality Inventory, which dates from the late 70’s/early 80’s. He next identified the three most important traits of SUPERIORITY (“If it’s ME vs another person, I always win.”), ENTITLEMENT (I deserve more out of life than other do.”), and EXPLOITATION (“I do whatever I can to get ahead, even if other people get hurt.”). There also may be a fourth trait called SELF-SUFFICIENCY, but it deserves further study. Josh values quality over quantity, and so reduced his new survey to 33 items, instead of the original 40. Testing college students on-line, he found that the three main traits tended to correlate with each other, but not as tightly as within each trait. For example, a person might think themselves SUPERIOR to others, but would not necessarily EXPLOIT others.

Josh also reported on developments in THE OPEN SCIENCE COLLABORATION, a group that seeks to replicate Social Psychology experiments, create databases, and then meta-analyze the results. There is some success, but problems abound. Some results replicate with only a trend towards significance, so what to do here? Josh stresses that, while his field has a long way to go before reaching the level of Chemistry or Physics, you have to start somewhere! Perhaps having better statistics might help, or studying more homogeneous populations. More manipulative experiments (e.g. the MINDSET MOOD studies) are promising too: Start with common sense behaviors, and then pick them apart. For example, how to get people to donate to STARVING CHILDREN? Show people a picture of ONE starving child vs. a WHOLE VILLAGE of starving children. The former context encourages people to want to help; the latter creates kind of a psychological sinkhole effect, and donors are less likely to want to help.

FAMILY NEWS: Josh’s 6-year old son Mathew likes video games and girlfriends, in that order. Two-year old Colin has just entered the connected speech/sentence stage and recently surprised Josh with the following utterance (while listening to the car radio). “Dad, this song is amazing!”
FROM MORAL INJURY TO SELF-FORGIVENESS

Dr. Joseph Currier’s interests focus on POST TRAUMATIC STRESS DISORDERS (PTSD) experienced by military veterans. PTSD can result not only from trauma to oneself from physical injury, but trauma to one’s moral self (moral injury) due to guilt feelings after a soldier returns from war. Joe described one of his recent case-histories: A Baptist minister was a member of the National Guard before 9-11. During the Iraq war, he went to Baghdad. For his first deployment, he was given the job of a sniper and was responsible for 20 confirmed deaths. For his second deployment, he was given charge of overseeing a checkpoint. When a suspicious vehicle appeared, he gave the order to fire, but it turned out the vehicle contained only a harmless Iraqi family. The result: MORAL INJURY.

The treatment: PROLONGUED EXPOSURE.
The patient is encouraged to talk at length about the trauma in order to return to the experience and deal with accumulated emotions. The therapist does not give the patient much structure, mainly leading him along with phrases such as “Tell me exactly how you feel”, “Good job”, or “Slow down”. Joe’s plans are to set up a clinic using local veteran centers where he will follow up vets with PTSD over time and study how successful they are at SELF-FORGIVENESS.

FAMILY NEWS: Last summer Joe took his family, including his 3 boys (ages 8, 6, 2), back to his home state of Minnesota, where they attended a Twins baseball game and went fishing in one of the 10,000 lakes.

Work Continues on Suicide Prevention

Dr. Philip N. Smith is in the closing months of a 2-year grant from the American Foundation for Suicide Prevention to study suicide risk in psychiatric inpatients at Memorial Hospital in Gulfport and at EastPointe Hospital. This project aims to determine why more men than women die by suicide, despite data that suggest women experience depression and suicide ideation more than men. His student Stephani Granato recently published a paper examining how greater adherence to masculine gender norms may promote fearlessness and pain tolerance, which themselves contribute to the capability to die by suicide.

Dr. Smith has also been conducting research on depression, trauma, and suicide prevention with women seeking shelter from domestic violence in collaboration with Penelope House. His student Darcey D’Amato will examine in her master’s thesis how bidirectional violence may promote suicide risk in targets of domestic violence. In this same project, Shane Kuhlman is preparing a manuscript examining how the distinct symptom clusters of Posttraumatic Stress Disorder may differentially promote suicide risk by influencing both the desire and the capability for suicide.

Dr. Smith and his graduate students will be sponsoring a fundraising and awareness walk for suicide prevention on the University of South Alabama campus on March 28, 2015. Information about participation will be forthcoming.

SUMMER 2014

There was only one significant trip this year, by Dr. Larry Christensen, who presents us with an account of his travels to SPAIN:

Barcelona: Here he began to notice that Spanish architecture is quite different from the rest of Europe’s: It doesn’t have lot of ancient buildings, and distinctly shows the influence of the Muslims/Moors.

Cordova: Here is a building that is both a MOSQUE (outside) and a CATHOLIC CHURCH (inside). Apparently it was originally a mosque that was taken over by the Christians during the Middle Ages.

In Toledo, outside of Madrid, he saw the Spanish VERSAILLES, which was once the summer palace of King Ferdinand and Queen Isabella. (Remember, they’re the ones who sent Christopher Columbus over the Atlantic, resulting in the discovery of America).

Larry also spent a lot of time in TAPAS restaurants, which feature small appetizer-like meals with little-bitty food tidbits. Overall, the trip was greatly enhanced by the fluent speech of his nephew, who spent 2 years in Spain learning conversational Spanish. Larry would have been open to a bullfight, but this idea was nixed by his fellow-travelers.
Dr. Joan M Sinnott (Retired to NY in 2012; Emerita status pending) returns to the good old USA periodically to report/edit/publish our NEWSLETTER, and also to watch over her endowed USAF Sinnott Chair Fund for Comparative Psychology, which will be re-activated when the $$ TIME IS RIGHT. She now works at the UTICA NY ZOO to combine academic research, animal enrichment, and zoo visitor experience.

Here's one of her ongoing projects:

**REVERSAL LEARNING** was one of the first animal intelligence tests devised by comparative psychologists*. P is trained to perform on a 2-alternative/forced-choice procedure, typically using 2 directional responses of ←GO-LEFT vs. GO-RIGHT→. The goal is to determine if P can figure out when to reverse responses from LEFT to RIGHT (or vice versa) to earn food treats. JMS works with JOEY, a female **African Crested porcupine**, who was born at the zoo and raised by humans. If you think she looks more like a peacock than a porcupine, you are correct!

![Baby Joey](image1) ![Joey all grown up](image2)

In JOEY’s classroom, a fence is set up to separate her from 3 experimenters (Es): The center E (CE) lures JOEY to a center position, and then calls out the name of either the left (LE) or right (RE) experimenter. If JOEY responds by correctly going to LE/RE, then CE calls out GOOD!! And she gets a food treat from either LE/RE. If JOEY responds incorrectly, then CE calls out NO!! And she gets no treat. In either case, she returns to CE for another trial. We test JOEY for 20 trials per session (10 left/10 right). We start her on either the left or right side each day, and then try reversing her to the opposite side on trial #11. The question is: Will she learn to reverse correctly on trial 11?

![Diagram](image3)

JOEY’s data are shown below, averaged over 20 daily REVERSAL sessions. On trial 1 her responses are near chance level (50% correct), indicating guessing. But then she performs at 90% correct on trials 2-10. On trial 11 the REVERSAL occurs and she goes the wrong way. But then she performs at 90% correct on trials 12-20, until the end of the session.

![Joey's Reversal Learning](image4)

This is the classic way animals solve the REVERSAL problem: They engage in a WIN-STAY/LOSE-SHIFT strategy. JOEY is **thinking**: "FIRST I GUESS UNTIL I GET IT RIGHT, THEN I STICK WITH THIS RESPONSE UNTIL I MAKE A MISTAKE, THEN I CHANGE MY RESPONSE AND STICK WITH THIS ONE UNTIL MY SESSION ENDS" So JOEY has a great working short-term memory, such that she can remember which direction she went to on a given trial, and then direct her future responses accordingly to earn her food. Great job JOEY!! But note that JOEY did NOT pay attention to the speech cue CE gives her (i.e. the name of LE /RE) to tell her where to go on trials 1 and 11. But now that we know JOEY can learn our procedure, our job as **comparative psychologists** is to figure out how to teach JOEY to pay attention to the speech cue that tells her when to reverse her response. C’mon YOU can do it JOEY!


**This Newsletter Gets By With A Little Help from JMS**

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