

YY

PSYCHOLOGY DEPARTMENT NEWSLETTER

University of South Alabama, Spring 2004

YY

STATE of the DEPARTMENT

According to **Psychology Chair Dr. Larry Christensen**, the state of our department is “improving”. Come fall, we will have two brand new faculty members: (1) **Dr. Mark Yates** (experimental) was hired to replace Dr. Mark Faust, and (2) **Dr. John Kline** (clinical) was hired to replace Dr. Kati Arata. Yates does work on phonological influences on reading, while Kline does work on the link between olfaction and emotion. Both of these **highly interesting areas** should prove most attractive to incoming graduate students. And come 2005, be assured that you will be able to read all about our two new faculty members and their new research areas in next year’s Newsletter.

BRAIN WAVE LAB DRAWS MANY COLLABORATORS

Dr. Jack Shelley-Tremblay, PI of the *Psychology Department Psychophysiology Lab*, has many collaborators. Obviously Jacks’ state-of-the-art Lab is much in demand in our department, as well as his expertise in many diverse areas of Psychology.

First, Jack still maintains an active research relationship with our old friend **Dr. Mark Faust**, now at UNC Charlotte. Both are seeking to understand the broadly distributed N400 component as a marker of STROOP conflict. (which now has two components, by the way N400a AND N400b). They continue to study from whence it comes (frontal vs. posterior vs. parietal vs. occipital), and how it relates to the classic STROOP effect. By the way, the STROOP effect can be eliminated, is the new news from Jack. Yes, no longer are subjects always automatically misled by letters when striving to

process color! Actually, the elimination factor was first reported behaviorally by Besner & Stoltz, and most recently verified by Shelley-Tremblay & Faust at the neurophysiological level via N400 analysis. The key to elimination? Simply add a 125 ms pre-cue arrow to the word display that directs attention to a single colored letter, rather than the rest of the word, which remains grayish. Subjects can still read the word, but it no longer distracts their attention and interferes with color naming.

Jack is also getting involved with the Juvenile Justice research. He and **Dr. Jenny L-R** (see below) have a 1-year Planning Grant to assess the reading skills of juvenile offenders. This research takes place at **Camp Martin** (a youth camp) in Pritchard. They have devised a 6-week training program to train visual attention via various computer programs, which are almost as interesting to work at as video games. For example, in one “game”, the subject must record left vs. right dots appearing on the screen on the keyboard, while simultaneously reading letters and reporting if they match or not. Jack thinks that this type of training will improve reading skills, which most juvenile offenders sorely lack.

Jack is also collaborating with **Dr. Marty Rohling** (see below) to catch MALINGERERS who try to claim psychological disability. The key is to explore using another wave, this time the N300 (note this is distinct from the N400 as described above). The N300 has traditionally been used to assess expectancy, recognition or surprise. If Jack and Marty succeed, maybe malingering will be added to this list! In any case, it is certainly exciting to think that maybe somewhere there in the brain are actual physical events that can correlate with a concept such as malingering! *SO SEARCH ON!!*

Jack is also collaborating with **Dr. Jerry Williams** (see below) to look at EEG patterns that mark concentration ability for good vs. bad golfers, and how this may be influenced by an audience effect. He is also serving as primary mentor for 3rd-year

graduate student Allen Ernst, who is conducting a very comprehensive study to analyze both behavioral and physiological measures of carbohydrate influences on FIBROMYALGIA, a disease that is associated with chronic pain and sleep disturbances.

REVOLVING around the RIM

Dr. Marty Rohling's world revolves mainly around his RIM (Rohling Interpretative Method), which uses meta-analysis to uncover regularities or irregularities in large bodies of data. Marty, as ever, seems energized by a good fight. This year he was busy responding to various critiques of his RIM via various articles, workshops and even an invited presentation at the National Academy of Neuropsychology in Seattle. In addition, he is still concerned with aspects of neuropsychology certification being overly stringent, and has written an article criticizing the ~~OLD BOYS NETWORK~~ of the Certification Board. This exchange will probably go on for some time, since the Board has written a rebuttal to his article, and then Marty, obviously, will counter with a comment on their rebuttal.....

As far as actual research, Marty is also meta-analyzing a large body of data regarding the effectiveness of cognitive rehabilitation therapy. Does all that memory and attention skill training really work? Apparently, the American Congress of Rehabilitation Medicine seems to think YES, while insurance companies seem to think NO. We shall see, according to Marty, armed with his trusty statistics.

Likewise with the problem of when to return to play after a **head injury**? This is a real problem for jockeys, boxers, and rugby, soccer, football and hockey players. Here is a great job market for neuropsychologists, all the pro teams seem to have them, and they administer batteries of test to players to test attention and measure RT scores. According to Marty, there seems to be no agreement about how to assess the severity of head injuries, how to classify them, and how to make return to play decisions. Do all these tests really help, or is the simplest most cost-effective solution simply to ask the player how he feels?

And while Marty's at it, he might as well look at the neurotoxicity of mercury in fish. As human activity

releases more mercury into the atmosphere, it ends up in the oceans and ultimately in our seafood. So the data says that this is toxic for *the Farao Islanders near Iceland*, but there seems to be no effect for people living in *the Seyshelles Islands off Madasgar*. There is loads of mercury data out there waiting for examination: industrial workers working with it, miners mining it, even dental fillings contain it. So is mercury poisoning really a threat to humanity or not? Give Marty and his computer a little time and he will probably have a pretty good answer!

GRANT WRITING MACHINE

Dr. Jenny L-R was a grant writing (\$) machine this past year. In addition to her work with **Dr. Lisa Turner** on the Parenting for Success grant (see below) and her work with Dr. Jack S-T on the Reading Recidivism grant (see above), JLR is currently P.I. on two other grants:

The first funded project involves assessing whether the past characteristics of battered women predict how long they remain in a battered women's shelter. Included in this project was JLR's measure of unwanted pursuit behaviors and stalking, the Pursuit Behavior Inventory. Preliminary data suggest that the majority of battered women report being victimized by some unwanted pursuit behavior by their abuser. These women also have much higher levels of fear than do battered women who are not being victimized by stalking or unwanted pursuit. The second project, funded by the OJJDP, is considering the impact of adolescent delinquency-related events (pregnancy, arrest) on college women. These results suggest that even resilient women experience some long-term impacts from these events.

Otherwise, JLR is busy supervising graduate student research. Four students defended their Masters Theses with her this spring: Jeff Kilbert, Motoko Saito, Amber Simpler and Allen Morgan. Topics ranged from cross-cultural differences in suicidal behavior and attitudes to the multi-dimensional nature of perfectionism.

PARENTING for SCHOOL SUCCESS

A few weeks ago, one could hear a baby crying in the Department. This was not a hallucination, it was **Dr.**

Lisa Turner's and Dr. JLR's Parenting Skills grant in action. Yes, in the **Baby Lab Suite** (rooms 310-311), babies are being tested for their responses to a strange situation. In this simple test, among others, Mom brings Baby into a test room equipped with a few toys and of course a video camera to record everything. Baby starts to play, Mom looks on for awhile, then Mom leaves the room, and Stranger enters. What does Baby do? According to Lisa, a baby who has bonded well with Mom will usually act a bit **upset**. And when Mom returns, a securely attached Baby is **successfully calmed** by Mom. Right now, the program has about 10 Moms who are working with 10 Mentors to improve their parenting skills. There have already been 16 completions in the program, many of whom thought it was a **GREAT HELP**. The program is evaluated by a series of pre- and post-test questionnaires, and these are administered as well to control groups. The ultimate ideal goal is to follow up these babies in the future to see whether a secure attachment results in healthy adolescent behavior.

Anyone who would like to participate in the **Parenting Skills Project** should call Marilyn McGowan at 461-1559 or Dr. Turner at 460-6013. This is a great opportunity to meet and network with other Moms and learn more about how to support your baby's development. Participants will receive gift certificates from area stores and referrals to various local agencies.

USING TV to promote PSYCHOLOGY

Recall the big news with **Dr. Cay Welsh & Dr. Elise Labbe** last year was the FFT training program. Unfortunately, because of the **HOLD** on our PhD program, the FFT program is stalled, at least for now. But Elise & Cay continue to make do with existing resources, continuing with FFT follow-up for juvenile offenders. In addition, Cay is supervising graduate students who work with adolescents (anger management) and ADHD (hyperactive) children. And, on a positive note, there is nice new carpeting in the Clinic!

Cay is also now a **CELEBRITY**! On TV, WKRG Channel 5. 9:00 a.m. weekdays, she appears on a local news show that airs **human interest** talks. About once per month, she talks to the public in a 10-15 min chat about relevant current Psych issues such as APA resources for vets (returning from IRAQ),

and coping with PTSD (Post trauma stress disorders). The next date will be Tuesday April 20, so be sure to tune in and watch Cay *in action!*

PSYCHOLOGY of SPORTS BEHAVIOR

Dr. Jeral Williams continues to study the cognitive influences on sports behavior in many ways. For example, one main interest is in how golfers learn to **select the line for putting**. An inexperienced player is typically misled by the myth of **equal velocity**, i.e. the ball velocity going up is equal to the velocity coming down. This is not true for physical reasons, since friction alters the line when the ball is coming down compared to going up. Thus a good athlete learns (either consciously or unconsciously) to aim beyond the center point of the trajectory. Not-so-good athletes may need some **coaching** in this regard. Jerry is also collaborating with Dr. Jack S-T and an undergraduate Honors student JD Shugrue in their study of the **audience effect** on good vs. bad golfers (see above). Finally, Jerry puts all his theories to good use when he acts as a consultant to the Men's Golf and Tennis teams, or when he individually tutors baseball and track athletes. According to Jerry, even after he retires (he is aiming for sometime around 2005), he will continue to keep his foot in the **sports consulting business**.

And a more personal note:

As an older person who is nearing retirement, I found great encouragement in my recent battle with prostate cancer. I am living proof of the importance of the old and the very new.

During my last physical exam, although my PSA score was quite good, I insisted on a physical exam the old fashioned way. A slight bump turned out to be cancer. The old fashioned way led to early detection.

Next the very modern took over. Upon hearing my diagnosis I found the latest in surgery. A robot was used for the removal of my prostate. My very young surgeon insisted he is the first generation of computer games specialists who actually can put that skill to work. The procedure was great. I was up that night and out of the hospital the next day. I am recovering and the prognosis is quite good.

yyyyyyyyyyyyyyyyyyyyyyyyyyyyyy
yyyyyyyyyyyyyyyyyy

PSYCHOLOGY to INTERACT MORE WITH MOBILE ZOO

Dr. Joan Sinnott, whose main job is running the on-campus Comparative Hearing Lab, has developed a *very strong side interest* in the **Mobile Zoo** in Wilmer AL. She is looking for ways to involve more students in animal behavior research, and the Zoo seems the best way to go, given all the bureaucratic entanglements that control animal research on campus. It is becoming more and more time consuming and expensive to train students to work with animals on campus, and consequently animal facilities are becoming more and more limited. For example, with Dr. Bill Vitulli's retirement from the Psychology Department in 2002, our RAT LAB disappeared. No more can students study real animal learning anymore. Even at other universities, computerized rats are replacing real ones. The solution, according to JMS, is to make use of zoo animals for Psychology teaching and research.

JMS has been teaching her Zoo Animal Behavior class for 10 years. She started it at the Sasquatch Zoo in Crestview FL in 1994, but this required a 2-hour drive to and from Crestview every week. Then, by the **Grace of God**, we discovered a small Zoo trying to get started in Wilmer AL, only 10 miles from campus! The Zoo is a non-profit corporation directed by **Mr. John Hightower**, who has much land in Wilmer and previously used the site as a ranch but has gotten more and more interested in wild animal conservation. The Zoo has quite an impressive inventory for its size, even housing a **chimpanzee** (Joe, a retired movie star, is everyone's favorite). JMS teaches two types of courses at the Zoo:

The first, more *clinical* course involves simple **Psychological Profiling**: students chose two different species and then produce psychological evaluations comparing intelligence, inter- and intra-species sociality, friendliness to humans, etc. During this time, JMS and her crew are stimulating the animals with various props such as Halloween masks, snakes (real and fake), silhouettes of predators, or giant stuffed animals. And the students are encouraged to bring their own props for the animals. Most of the students report that some kind of **bond** develops between them and their animals by the end of the class.

The second more *experimental* course involves training the animals via Operant Conditioning and food reward to perform simple visual discriminations. For example, the animal is first taught to approach a certain part of the cage to begin a trial. Here three experimenters are positioned, one to present the trials and deliver the reward, the others to hold the left and right stimuli, e.g. a large black vs. white square. The animals are trained to touch the appropriate stimulus to receive their reward. Believe it or not, our star subject for this type of experiment two years ago was not one of the primates, but a **WILD-BORN RAZORBACK PIG** named RUDY!! Now how many Psychology students would ever have the opportunity to work on campus with a PIG??

JMS has great plans for this Zoo! She is now on the Board of Directors, and plans to help the Zoo improve its facilities for both humans and animals by doing a little *grant-writing*. Initially, grants will involve proposals submitted from the Zoo itself to agencies such as the *National Fish and Wildlife Service*. As time goes on, the aim will be to start a more formal collaboration between the USA College of Arts and Sciences and the Zoo where Psychology, Anthropology and Biology students will be welcome to come and conduct research projects.

TEACHING gets MORE and MORE ELECTRONIC

Dr. Susan Anderson's teaching skills continue to get more and more electronic. She now uses a new system called **eCompanion**, which allows teachers and students to communicate about all aspects of course work via the WEB. Susan's students can now check their own grades, get all handouts on-line, link to important articles and other study material, even download the class **powerpoint** presentations. So far, she says, this does not seem to discourage students from actually coming to class.... The good students will always show up, according to Susan! Like her individual **Honors Students**. These are freshmen who take a regular General Psychology class, but then do extra work such as reading published articles and then preparing a related poster, doing critical reading from sources such as the New York Times, or preparing a major project. This extra work allows them to receive that special **H** on their transcript, which will forever differentiate them from the normal average student.

As far as extra-curricular activities, Susan is still involved in the **Mentor Program** for the USA

Women's Basketball Team. She was pleased to see the women finish the season in *first place* in the Sunbelt Conference Western Division this year with a 22/7 record!

SUGAR CRAVING: AN ADDICTION?

Dr. Larry Christensen continues to work on that mysterious feedback loop between FOOD ⇔ MOOD. His latest twist? Explore more in detail about the link between SUGAR CONSUMPTION ⇔ CARBO CRAVING. While he doesn't go so far as to call this craving an addiction, for some folks it does come close, especially where the sweet carbs are concerned like chocolate cake, etc. Right now Larry's #1 goal is to get his participants to: (1) complete a 3-day food plan consisting of their typical diet; (2) then eliminate sugar from their diet for two weeks (they are contacted every evening to keep them honest); and (3) test to see if the sugar craving will be reduced. Larry also has a #2 goal, and this is to start investigating the physiological basis of sugar-craving.

Follow-Up on Sep 11

Last year we reported that **Dr. Jerry Downey** had found hostility scores by USA students to be higher right after 9/11 (01) than before the attacks, and also the scores were still elevated in Sep 02. Downey has now reported (North American Journal of Psychology, 2004) that the hostility scores of Sep 03 have stayed up a little, but not as much as Sep 02. He thinks that the media attention given to the attacks every September contribute to these elevated scores. He argues that "re-living" or "rehearsing" an anxiety or aggression provoking event is unlikely to be "cathartic" or helpful. Also related to this same topic, Downey has found that his **People Perspective Questionnaire** indicates that we now (post 9/11) see people as more different from each other than we did before.

PART-TIMER becomes MORE VISIBLE

Dr. Kent Welsh is filling a one-year temporary position, due to loss of Dr. Kati Arata. In fact, Kent has been teaching for us part-time since 1981. After arriving in Mobile in 1978 with Cay, he worked at a

counseling/testing center, and then went into private practice, which is still his main activity. As Kent puts it, he doesn't work with any particular special populations, but "just normal depressed adults". He considers himself as following a **cognitive behavioral** model of psychotherapy a la Aaron Beck. This means basically using methods that help one to interpret and think *about one's present view of the world*, as opposed to a Freudian model that uses a lot of historical data. But Kent's trademark, so to speak, is that he uses HYPNOSIS in his treatment and he actually has a case study published that cured BLUSHING in a patient via hypnosis.

Kent is also active in a lot of state and local groups (Drug Education Council, Mobile Pre-school for Sensory Impaired, Ethics Task Force of Chamber of Commerce) and works to increase the visibility of Psych among the public, as the Public Education coordinator for the Alabama Psychological Association. He has produced programs about issues such as how to recognize teen violence, how to bounce back from trauma and prepare for stress. He has dealt with veterans returning from IRAQ for example. As far as teaching goes, he has taught Intro, Abnormal, Developmental, and Stat. He likes teaching for us very much, because it gives him an occasion to return to **academic surroundings**.

How does he spend his spare time? The Azalea Trail Run (10 k or 2.6 m), kayaking, sailing, hiking, folk music, guitar, keyboard, harmonica. And here is an *interesting* (unrelated to anything) fact: He has known Jeral Williams since 1956 when they were in high school together!

FORMER CHL STUDENT RETURNS as PART-TIMER

Ms. Laura McArdle Powell (ABD), former student of **Dr. Joan Sinnott** in the Comparative Hearing Lab, has returned to our department to teach various experimental courses, due to the loss of Dr. Mark Faust. Laura obtained her Masters Thesis in 2000 and went to USM in Hattiesburg for PhD work. She spends a lot of time at Marinelife in Gulfport, however, because her dissertation is studying how dolphins (**yes, dolphins!**) process human faces. Laura has an inventory of photos of human faces that have been previously classified (by humans) as either "attractive" or "unattractive". Since dolphins and humans get along so well together, Laura is asking whether dolphins will recognize attractive (or

unattractive) human faces in the same way as humans themselves do. Her test situation involves presenting the faces to dolphins through a window in their pool and recording the amount of looking-time, which is basically the same type of test procedure used with human infants.

Laura expects to finish her PhD work sometime this year, and then return to the USA as both a post-doc in the Comparative Hearing Lab and also continue with some part-time teaching for the Department.

BONNIE masters BANNER

Departmental Secretary/Office Manager **Ms. Bonnie Hall** has been hard at work this last year. She has attended numerous training classes for the BANNER system, which is the university's new procedure to computerize **EVERYTHING**. She now knows how to assign advisors and print out advisor reports, input schedules of classes and do class incompletes, withdrawals, closings, overrides and special permissions. According to Bonnie, once one devotes the initial time investment to learning the system, it is ultimately more efficient for everyone: students, faculty and administrators alike. Bonnie also handled a lot of the paperwork involved in the search for our newly hired faculty (Yates & Kline), including maintaining all the application files, mailing out letters to the applicants, and handling travel and recruiting expenses for all the candidates who visited the campus for interviews.

Where has 16 years of devoted service gotten her? Well, Bonnie recently received her 15 Year Service Pin at the Faculty/Staff Recognition Awards Ceremony. I am sure I speak for everyone, faculty and students alike, when I say that we are all very grateful to Bonnie for everything she does for us in the Psychology Department!

MESSAGE from BILL VITULLI

Hi to all,

The following article was published in 2003:

Vitulli, W. F. (2003) A systematic replication of variations in verbal content and delay on time estimation and short-term memory. *Perceptual and Motor Skills*, 96, 1215-1222.

The collection of data for this research (2000-2001) was assisted by then graduate students Jennifer Glass, Brooke-Donald Waters, and Lilah Kulakowski.

The study suggested that when participants heard discussions of science, psychological disorders, and social psychology from a general psychology text book, they gave longer estimations of time of this material when a delay was scheduled after hearing the information, as compared to immediate estimations. And yet when the material heard was mere *nonsense syllables*, no differences occurred in time estimates whether there was a delay or not. The influence of meaningful verbal material relates to our experiences of the duration of time.

Betty and I travelled to Mexico (Belize City and Cozumel) in January of this year. Visiting the Mayan ruins gave me a more realistic perspective of contemporary culture; that is, we may be more complacent about our own progress than we should be.

Mugsy (our Boston Terrier) is now 2 years old. Her development from a wild puppy dog, behavior reminiscent of bipolar affective disorder ("when good, she was very, very good, yet when bad she was horrid!") has progressed into a very intelligent, considerate adolescent. She walks me most mornings at Medal of Honor Park.

Sincerely,
Bill

Productivity from the *Brain Wave Lab*

Deacon D, Grose-Fifer J, Hewitt S, Nagata M, Shelley-Tremblay J & Yang, C (2003). Physiological evidence that a masked unrelated intervening item disrupts semantic priming: implications for theories of semantic representation and retrieval models of semantic priming. *Brain & Language*, online Dec. 16.

Rohling M, Faust M, Beverly B, Blanton H, Shelley-Tremblay J (2003). Meta-Analytic Review of Cicerone et al. (2000): Evidence Based Cognitive Rehabilitation. Annual meeting of the APA. Toronto, Ontario, Canada.

Shelley-Tremblay J & Faust M (2004). An Electrophysiological Investigation of Attentional Cuing in the Stroop Task. Annual Meeting of the SEPA, Atlanta, GA. (INVITED)

Solan H, Shelley-Tremblay J, Larson S, Loopiker K & Ficarra A (2003) M-Cell deficit and reading disability: A preliminary study on the effects of temporal visual therapy. 33rd Annual Meeting of the College of Optometrists in Vision Development. Phoenix, AZ.

Solan H, Shelley-Tremblay J, Larson S (2003). Effect of Visual attention therapy on reading comprehension. *J. Learning Disabilities*, Nov. Vol. 36.

Solan H, Hansen P, Shelley-Tremblay J & Ficarra A (2003) Coherent motion threshold testing for M-Cell deficit differentiates above and below average grade 6 readers. *J. American Optometric Association*, Nov.

This newsletter gets by
with a little help
from JMS