Interview with Dr. Greg Hajcak, 2008

Dear Dr Hajcak,

Each year the interview committee decides on an outstanding candidate for the interview section of the spring newsletter. There are many reasons why you would be a great candidate. Personally, I have been interested in your work since first seeing one of the many symposia you presented at SPR conferences. Your recent move to Stony Brook, as well as your prolific early research career is of great interest to the student members of SPR. Several of the questions will center around the change in your professional and personal life with starting a new faculty position. Thank you again for being willing to do this! Let's begin...

Moving to a New University

When you first moved to Stony Brook, what were some of the biggest changes between a faculty position and being a graduate student?

I guess the most obvious change is the independence—with its associated up- and down-sides. On the one hand, it's a bit like being a kid in a candy store with no grown-ups—you can do anything you want. On the other hand, you really can do anything you want. So I've found that I have to force myself to think practically and programmatically. For me, there was strange feeling when I realized that there was no one to run ideas by anymore—no one a level-up on the totem pole. Toward the end of graduate school, though, I felt like Bob (Simons, my graduate mentor) treated me like a junior colleague—I was fortunate in that regard. I was also lucky that Bob recruited Jason Moser in my third year, so I got to do a little 'mentoring' before I left graduate school. So in some ways, I got to experience some independence before I was actually on my own. That said, the biggest change might be administrative duties—I feel more like an administrator now than I'd like to. I file a lot of paperwork, and attend a lot of meetings.

In starting at a new university, what are the best/most important moves to make in the first year? What should new faculty concentrate on?

In light of the current funding issues at NIMH and elsewhere, I would strongly suggest that people argue for a start-up package that can sustain their lab for a couple years or more—and the flexibility to spend that money over such a time frame. Also, keep in mind that equipment takes a long time to arrive, and space takes even longer to revamp. And even once you get your equipment and your space, you might need some time to get everything working properly. So set realistic expectations for your first year. The space I got at Stony Brook was perfect for a psychophysiology laboratory, so I didn't have to do any remodeling—and this was ideal. If you can, be thinking of what you want to buy ahead of time—and order it as soon as you can. People at SPR were really helpful in this regard; many of my friends and colleagues were willing to share their thoughts on equipment, and often times, the actual start-up package that they received. If at all possible, work toward sensible teaching assignments. In particular, if you can teach a course that you've taught before (maybe even as a TA in grad school), that will reduce preparation time drastically. This is one of the biggest advantages to doing some teaching while still in graduate school: you've basically got a course prepped and waiting. I think it's also worth having a study or two in your pocket that you can run right off the bat—even something small just to get things moving forward.

How did you set up intra- and interdisciplinary collaborations at this new institution?

I think I've always been very collaborative; in part, because science can be lonely and I enjoy feeling intellectually connected and part of a team. I think it's fair to say that the majority of the projects I'm currently working on are collaborations. For me, collaborating is a great way to increase my knowledge base and expertise. Almost any time I get interested in a new area or method, I reach out to someone who is

already an expert. This actually started for me at SPR. I was presenting a poster on ERP and ANS measures of error-processing, and Eveline Crone said that her friend Sander Nieuwenhuis would be interested in hearing about my data. Turns out, Sander was doing a post-doc at Princeton which was just up the road from Delaware. I went up there, and got to meet Clay Holroyd and Nick Yeung—the three of them shared an office; Richard Ridderinkhof (one of Sander's graduate school mentors) happened to also be in town that day giving a talk to Jonathan Cohen's group—and we all went out for dinner that night. I've been friends with them since, and have involved each of them in projects I was working on at Delaware. At the time, it was readily apparent to me that these guys (Sander, Clay, Nick, and Richard) knew more about action monitoring and the ERN than I did (and they still do)—and by involving them as collaborators, I learned a great deal. I owe them all a lot of thanks—especially Eveline for serving as academic match-maker. As a result of their involvement, our experiment designs were better, the data analytic approach was more sensible, and the resulting papers were stronger.

But to answer your question: since I've been at Stony Brook, I've continued to form new collaborations— and have set these up in a variety of ways. I met a geneticist (Eli Hatchwell) at a new faculty orientation on sexual harassment. He smoked mini-cigars and I went outside with him to hear about what he was up to, research-wise. I tried to interest him in ERP measures of brain activity and in the end, he agreed to help my lab do our own genotyping—and we continue to collaborate today. I saw online that Rita Goldstein was just down the road at Brookhaven National Laboratories doing great work on addictions, and I emailed her to see if she would have any interest in talking. Turns out we have overlapping interests in reward, and they had an ERP lab there—so that is a really nice on-going collaboration too. Similarly, Tracy Dennis (at Hunter College in New York City) and I collaborate on developmental work on emotion and emotion regulation. More recently, I've started working with Lilianne Mujica-Parodi on pheromone-based manipulations, and Roman Kotov on a project aimed at refining anxious (endo)phenotypes—both Lilly and Roman are at Stony Brook Hospital. Medical Schools are a wonderful resource for collaborations. Within the actual psychology department, I have on-going collaborations with Dan Klein and David Klonsky. More recently, I've been collaborating with some other SPR members—Joe Dien and Eddie Harmon-Jones. SPR is a wonderful forum for developing collaboration: I feel really lucky that members of SPR have been keen on collaborating.

Applying for a junior faculty position after graduate school can be a daunting and frustrating task: How did you go about your search? How receptive did you find the job market for a psychophysiologist?

I think I sent out something like 30 applications—I tried to only apply to places that I thought I would actually go to. I also had a post-doc lined up incase the job search didn't work out. I was very positive and excited about the post-doc, so that really helped: the prospect of not getting a job didn't feel like such a bad thing. I don't remember exactly, but I think I got something like 10 interview offers. I remember thinking it was pretty idiosyncratic where things worked out—I got an interview offer at Harvard but not University of North Carolina at Greensboro. Being on the other side now, I would tell people not to take it too personally—places are often looking for something or someone very specific.

I think there is increasing emphasis on biological approaches to clinical issues, so I think the methods I use and my general research interests were (for the most part) well-received. I don't think I fully understood what this meant at the time, but I think the key to success involves programmaticity—being able to demonstrate that you're in the midst of getting somewhere interesting. I think one of the most useful things students can do is to spend time constructing and refining a Research Summary statement—a document that places your past work in a broader context, including where you see it going (in the end, you'll have to do this as part of your application package). I continue to refine mine—and it helps me gain some clarity on how things fit together.

Did you find that clinical training or a postdoc were necessary prerequisites for obtaining a faculty position?

I'm in the clinical area at Stony Brook, and last year I started (and currently run) an anxiety disorders clinic—the the 2nd year students rotate through my clinic and do exposure-based therapy for the full-range of anxiety disorders. I do the supervision. The goal is to integrate clinical training and clinical research. So in this regard, I think clinical training was necessary. Doing supervision was not a requirement, though. In general, I think clinical is still an area where you can land a faculty position without a post-doc if you're productive in graduate school, although this is probably changing as more and more people do post-docs. That said, I would strongly encourage students to consider post-docing—it's a really great opportunity to do unbridled research, learn new approaches and methods, or get expertise with a new population. Once you're on faculty, you're time is pulled in so many directions that it's difficult to develop new skills.

Research in Psychophysiology

What do you think about the present national funding situation of psychophysiological research?

I'm new to this, and therefore have a pretty limited perspective—so keep that in mind. But it's bad. Somehow, I thought people were exaggerating when they talked about how tough funding was at NIMH. That was naïve. I think the subtleties of what "bad" means are actually difficult to explain—I continue to have what feel like epiphanies, and I've been at it for almost 2 years now. To be honest, the experience has been a punishing one (although I'm currently hopeful that my first small grant is about to get funded). Getting a grant is more than writing a good research proposal—it's about learning and working a very complicated system of stated priorities and potentially antithetical reviewers. Everyone who gets funded seems to think that they've got the system pegged, but in the end, different projects get funded for different reasons. I think the best approach is for students to ask as many people about their experiences as possible. Also, I think collaborative grants are a good idea to consider—often a psychophysiologist can add a measure that suddenly makes a grant "translational". But keep this in mind: there are a lot of psychophysiological methods that are not terribly expensive—and a psychophysiology lab can run without grant funding. And there is a downside to grant-funded research: it binds you to actually doing certain projects, and then you're hands are more tied. By gaining some financial freedom, you lose other degrees of freedom.

What direction do you feel the field of EEG/ERP is going? Do you see any particular method being popular that students should know and learn about?

There is increasing focus on combining methodologies—and a number of SPR members are leading the field on this front. With regard to EEG in particular, I think time-frequency approaches are really interesting and potentially extremely fruitful (e.g., wavelet analyses). I also think factor analytic approaches (ICA, PCA) to ERP data are gaining momentum (again). I think the temporal resolution of EEG/ERP is appealing, and will be for some time. But more generally, I think that one area where psychophysiology can stake a claim is in research on emotion. Emotion is uniquely suited for psychophysiological approaches, and the field is exploding—being integrated into work on memory, psychopathology, social psychology, decision-making, the list goes on.

Your work spans a wide breadth of psychological areas, are there some areas you would like to focus your research and would recommend for future research?

In terms of methods, I'm in the process of getting training in fMRI (although I'm not sure how much I'll focus on this down the road). We've just finished a few startle studies, and I'm currently smitten with startle—its nice to be able to see what you're looking for on single-trials. But in general, I think I'm actually in a focusing phase at present—gathering the proverbial wagons. My goal was to spend my first couple of years sharpening focus, and to then move to some larger projects. Starting this summer, I'll be focusing on 3 or 4 rather large (and long) projects that will each take 2 years or so to finish.

Information for Students

You have a very successful early research career (e.g. publications, SPR symposia, etc.): What kind of recommendations could you give to students to help them launch a successful academic career?

When I was on the job market (and somewhat since), people would ask me some version of "So how did you manage to publish so many papers in grad school?" I guess I'm dense, because it took me about a year to realize an answer. Turns out I just worked efficiently and a lot. Seriously, I'm not sure how much mystery there is here. If you're asking interesting questions and designing sound studies, the rest is really just working too much. I'm not a good model for this—I probably work 70-80 hours/week, go pretty much stir-crazy after 3 days of vacation, and have always been this way. I'm not really sure what else to do with myself. If you email me, you'll probably get a response within an hour, if not less. As you can imagine, there are costs associated with this. And I don't think you have to be like this to do well; in fact, I'm hoping you don't.

Anyway, on to some concrete suggestions that might increase odds of success. Maybe its obvious, but talk to people. SPR is a great place to test conceptual waters and get feedback on data—I would suggest graduate students present posters, and do so often. If you're doing between-groups studies, think about within-subjects manipulations too.

In graduate school, I tried to have studies at every stage: some in the design phase, others where data was being collected, some studies being written-up, and other papers out for review. I think reviewing for journals is a great experience too—I think that has made me a better writer and has helped sharpen my thinking.

I would also suggest that, to whatever extent possible, replicate your own results. The general rule in my lab is that we replicate internally before we send something out for review—if you're reading a study that we just published, a follow-up study has likely already been done, and is on the way. Although systematic replications aren't always the most sexy studies to do, they are incredibly important in a world where it is not always clear what you can believe.

Once faculty, get good graduate students and keep them happy. Similarly, find good research assistants and keep them around. I couldn't keep up with things if I didn't have exceptional graduate students and research assistants.

Finally, two more thoughts: first, academia is a marathon, not a sprint—doing a couple high-profile studies is nice, but in the end, it's consistency that matters. You can come out of grad school on fire, but that is just the beginning. Think about some of the people in SPR that have been doing this for 40 years or more. It's not a single study, or even several studies, that define them as scientists—it's a body of consistent work; the reliable nature in which they approach questions. And you have to enjoy yourself. I love my job; in fact, I think part of the reason that I work 75 hours/week or whatever is that it doesn't feel much like work to me. I get to ask questions—about emotion, cognition, and psychopathology—I get to use a variety of psychophysiological methods, learn new things, and work with amazing people. Nobody tells me what I have to think about, and I don't have to wear a suit. What could be better?

When you think about your graduate student and academic career, is there anything you would do differently if you could?

I have always been poor at filtering what I say and inhibiting my expression of initial reactions. Moreover, I tend to get passionate about science, and like a good argument. I'm inclined to call bull**** on someone rather than smiling, nodding, and saying "That's interesting" (universal polite code for "I have no idea what those results mean"). But people take their science personally, and no one likes to have bull**** called on them. So I continue to try to strike a better balance between saying what I mean and being nice. I certainly could have done a better job of this in the past.