



# the Behavior Therapist

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#### President's Message

On Being Smart, Relevant, and Durable: Report on the 2012 Strategic Planning Retreat

Debra A. Hope, University of Nebraska–Lincoln



I n a column earlier this year, I indicated that in 2011 ABCT would hold its Strategic Planning Retreat. The Board, coordinators, and key central office staff meet every 3 to 4 years to develop a strategic plan to

guide our activities as an association. I think it is a great process that helps keep us focused on important priorities and preserves our resources by preventing short-sighted initiatives that we fail to complete. This year the Board met in May for two and a half days in National Harbor, located outside of Washington, DC. (National Harbor is the site of our 2012 convention and will be a great location . . . but that is a story for another column.) Since meeting at National Harbor, we have finalized the plan and I am pleased to use my last column as President to share the highlights with you.

#### Technology and Social Media

We have invested significant time and resources in our website in recent years, under the leadership of Mitch Prinstein, our outstanding Web Editor. We also have an active list-serve, moderated by Carl Indovina. We have a Facebook page and some additional social media presence a few of you might have noticed. However, it has become increasingly clear that

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#### **INSTRUCTIONS** for AUTHORS

The Association for Behavioral and Cognitive Therapies publishes *the Behavior Therapist* as a service to its membership. Eight issues are published annually. The purpose is to provide a vehicle for the rapid dissemination of news, recent advances, and innovative applications in behavior therapy.

• Feature articles that are approximately 16 double-spaced manuscript pages may be submitted.

 Brief articles, approximately 6 to 12 double-spaced manuscript pages, are preferred.

• Feature articles and brief articles should be accompanied by a 75- to 100-word abstract.

• Letters to the Editor may be used to respond to articles published in *the Behavior Therapist* or to voice a professional opinion. Letters should be limited to approximately 3 double-spaced manuscript pages.

Submissions must be accompanied by a Copyright Transfer Form (a form is printed on p. 35 of the February 2011 issue of tBT, or download a form from our website): submissions will not be reviewed without a copyright transfer form. Prior to publication authors will be asked to submit a final electronic version of their manuscript. Authors submitting materials to tBT do so with the understanding that the copyright of the published materials shall assigned exclusively to ABCT. be Electronic submissions are preferred and should be directed to the editor at gunthert@american.edu. Please include the phrase *tBT* submission and the author's last name (e.g., tBT Submission -Smith et al.) in the subject line of your email. Include the corresponding author's e-mail address on the cover page of the manuscript attachment. Please also include, as an attachment, the completed copyright transfer document.

we need to integrate all of the social media resources and determine where we should make the biggest investments of time and resources. We cannot do everything well and we do not want to represent ABCT poorly in this very public forum. Following an informative presentation by a paid consultant on social media, the Board realized we need a strategic plan for how to proceed. The Board appointed a task force to propose policies for the Board's consideration that could guide our development of social media. The charge of the Task Force on Social Media includes the following:

- 1. Identify strategic objectives for our social media that include what we hope to accomplish, who will be the primary audience or users and how will we measure success in achieving these objectives.
- Identify a limited number of social media channels (e.g., Facebook, Twitter) that we will pursue that are appropriate for each objective.
- 3. Develop a plan to make content available in a timely fashion and to identify and handle inappropriate content.

Joann Wright agreed to chair the task force that also includes Kristene Doyle (Coordinator for Membership Issues), Sandra Pimentel (Coordinator for Convention and Education Issues), Carmen McLean (our next Web Editor), and Kelly Wilson; Mary Jane Eimer, ABCT's Executive Director, is an ex-officio member.

At the Strategic Planning Retreat we also had a report from Mary Jane Eimer, Executive Director, and Mary Ellen Brown, Director of Education and Meeting Services, on applications for mobile devices that would enhance our experience at the convention. The Board agreed we should pursue adding this new dimension to our convention. We already have completed a survey of members regarding their use of mobile devices that will inform this discussion as our staff bring proposals to the Board. Of course, this will be integrated with our use of social media as that develops.

The next steps for technology and social media will be charted by the Board to implement the recommendations as they come forward. I think their work will pay off to members who use social media as ABCT becomes much more visible and useful in your social media experience.

An ongoing focus from the previous retreat is dissemination of CBT. One tool for the future of dissemination will be social media. We also discussed improving our current efforts in reaching out to mental health providers. For example, we decided to explore possible models of follow-up consultation for individuals who attend convention workshops to help overcome the gap between the workshop experience and implementation in one's practice. To make our high-quality continuing education experiences more available, we are also examining the feasibility of webinars. These online learning experiences could reach a large number of people and, eventually, be a potential revenue stream for the association.

#### Ensure Our Future

As ABCT approaches the celebration of its 50th anniversary, the Board is increasingly aware of our growth as an organization. We want to be good stewards of our heritage and ensure the continuation and future development of all that is uniquely ABCT. In the coming months, you will see more signs that we are working on the fundamentals of comprehensive development program. A broader development program will ensure that ABCT remains a financially strong and enduring nonprofit organization committed to our particular vision. Our Secretary-Treasurer, Denise Davis, and Past President Frank Andrasik lead this effort.

Another aspect of ensuring our future is to grow members into leadership positions in the association. The ABCT Board has committed to piloting a leadership training experience at the convention. Also, there are increased efforts to identify a broad diversity of members who could serve on committees, as committee chairs and, eventually, run for elected office. Ray DiGiuseppe, Chair of Leadership and Elections, is leading this effort to grow our next generation of leadership with the help of his committee Christopher Martell and Lily McNair and coordinator Kristene Doyle.

#### Good Governance

The leadership of the association is well aware of the need for good governance to keep our leadership accountable to the high standards expected of them by the membership. Over the years, the leadership has put together a comprehensive Policies and Procedures manual that covers ABCT's operating procedures and responsibilities and expectations for each role in our governance structure. The manual is continually updated, but the Board, coordinators, and committee chairs are taking an extra look at it this year. The Board updated the association's mission and vision statements, which will come for a vote of members as a bylaws change in the April 2012 election.

#### Service to Members

Finally, at the Strategic Planning Retreat, we discussed a number of items that will be helpful to members. These included developing a list of behaviorally oriented predoctoral clinical psychology internship sites on our website, making basic CBT training materials that many of us develop for our graduate courses available on the ABCT website, and reaching out more formally to training directors at various levels.

I would like to thank everyone who gave up 3 or 4 days in their busy schedules to work on behalf of ABCT at our Strategic Planning Retreat. I am especially appreciative of Patti Resick, who joined us as a Past President of ABCT. These were lively and productive discussions and I look forward to seeing the fruit that they bear.

Many thanks to Denise Davis and Mary Jane Eimer for their input on an earlier draft of this column.

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#### Call for CE Sessions 46th Annual Convention November 15–18, 2012

- WORKSHOPS: Jillian Shipherd, Workshop Committee Chair workshops@abct.org
- INSTITUTES: Risa Weisberg, Institute Committee Chair institutes@abct.org

## MASTER CLINICIAN SEMINARS L. Kevin Chapman, Master

Clinician Seminar Committee Chair masterclinicianseminars@abct.org

Send a 250-word abstract and a CV for each presenter. For submission requirements and more information, see the FAQ section of the ABCT Convention page at **www.abct.org**.

Submission deadline: Feb. 1, 2012

## The Internship Application Process: Advice You Might Not Have Heard

David DiLillo, University of Nebraska-Lincoln Thad R. Leffingwell, Oklahoma State University

S o you've been approved by your fac-ulty to apply for internship? Congra-tulations . . . and, some would say, condolences. But internship is supposed to be the crowning achievement of one's doctoral training-a milestone of which to be proud and an experience to be treasured. Why the condolences? Unfortunately, the sense of achievement that comes with internship approval is often tempered by trepidation about the internship match imbalancethe realization that positions are in short supply. As Directors of Clinical Training (DCTs), we too fret about the imbalance. We want our students to match, yet realize that some very deserving candidates may not. To forestall that possibility, we do whatever we can to prepare our students for the increasingly competitive application and match environment. Like most DCTs, we meet with applicants each year to offer guidance and suggestions for navigating the process. In this article we offer some of that advice. Our goal is not to provide a comprehensive guide to the process; individual mentors and other publications are excellent sources for that (e.g., Williams-Nickelson, Prinstein, & Keilin, 2008). Rather, we draw on our years of experience as DCTs (and former internship applicants) to offer a few pointers that you may not have heard, but which we hope are helpful to applicants.

#### Bask in Your Success, Briefly

Being approved to apply for internship is the result of a long, arduous process that began when you first decided to pursue a doctoral degree in psychology. You have worked hard to get to this point. In certifying you as internship-ready, your faculty is saying that you are prepared to undertake the capstone experience in your training. This type of recognition can be all too rare along the path to a Ph.D. Allow yourself to feel good about your accomplishments to date. Then get to work.

#### Start Early, Just Not Too Early

On the one hand, it is helpful to be somewhat thoughtful about preparation for internship throughout your training experience. Even from the first year, it is wise to be mindful of the AAPI application and how to track hours, the application process, and preparing yourself to both compete for an internship and benefit from the experience. However, when it comes to getting down to initiating the application process, it can be a mistake to start too early. Most internships don't update their materials online until mid-summer, and the application policies and AAPI online also typically implement revisions during the summer. August 1 is a good time to begin more vigorous and intentional efforts to initiate the formal application process. Starting too early often results in simply prolonging the anxiety that often accompanies application angst without adding any substantial benefit in return

#### Think of the Match as a 1- or 2-year Process

Unfortunately, the days of being able to count on matching the first time around have passed. Since 2002, the discrepancy between the demand for internships and available slots has steadily increased, and there is no sign of this trend abating. This means that every year an increasing percentage of applicants are not matching. In the most recent match, 21% of students who applied did not secure a position (APPIC Match Statistics, n.d.). Although match rates for university-based Ph.D. programs are far better, the unfortunate reality is that many deserving applicants are unsuccessful in matching each year. For that reason it is wise to think of the match as potentially a 2-year process. To help you adopt a 2-year mindset, consider from the outset what your backup plan will be if you don't match. From both a personal and professional standpoint, what would be the most productive and beneficial use of the additional year? Although not matching is always a blow—and we are not minimizing that—to the degree that you have mapped out a "plan B" you will be better prepared to deal with the "what now?" dilemma of not matching. Each of us has seen deserving students who failed to match in their initial attempt make the best of the situation by working hard during the subsequent year; these students are usually rewarded with matches to outstanding internships in the second attempt. Not matching is disappointing and inconvenient to be sure, but resilient students can make the best of it.

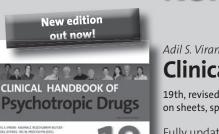
## Remember the Wisdom of the Serenity Prayer

A popular strategy among members of Alcoholics Anonymous is the Serenity Prayer: God grant me the ability to manage the things I can control, the patience to accept what I cannot control, and the wisdom to know the difference. Unfortunately, applicants cannot control every aspect of the internship match experience and failing to acknowledge and accept that fact will lead to much unnecessary stress (which might be worth it if it ensured match success, but it doesn't). There are many things that applicants can do to maximize chances of match success. Choose wisely when selecting where to apply, write the best essays you can, and prepare thoroughly for each interview. But recognize what you cannot control. You cannot alter your past training (only present it in the best possible light) and have no control over who else applies to your top sites. You have little input into the content of recommendation letters. You have no say in flight schedules or whether a blizzard will hit New England the day you're supposed to interview in Boston. Most important, remember that internship sites have their own agendas and priorities that you may not be privy to and cannot control. In other words, recognize the factors that you can and cannot influence. Maximize that which you can control; as for the rest, give yourself a break.

#### You Don't Need Every Internship Slot, You Just Need One

In fact, you don't even want every internship slot. There are lots of opportunities that would be completely wrong for you, your training needs, and your future plans. It is perfectly okay if and when you run across internships that aren't right for you. From time to time, a student will say, "I've heard that some sites want applicants to have lots of projective testing experience, and I don't have any. What do I do?" Our

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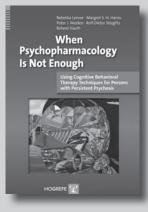


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Hogrefe Publishing · 30 Amberwood Parkway · Ashland, OH 44805 Tel: (800) 228 3749 · Fax: (419) 281 6883 E-Mail: customerservice@hogrefe.com answer might be, "Don't apply to those places; they aren't a good fit for you." There will be sites that have requirements or expectations of applicants that don't fit for you. This is almost always a sign that the internship likely fits poorly with your training model (which you obviously favor since you sought out the program and devoted years of your life to) and probably would be a dissatisfying internship placement for you. Fortunately, the match imbalance for scientist-practitioner or clinical science programs is apparently lesser than for other training models, and it is quite likely that you can find many internship opportunities that are a great fit for you.

#### Your Vita Matters at Least as Much as Your AAPI Hours

Having a strong vita is almost always an asset to your application, and applicants would be well served to be as committed to accumulating a strong vita as accumulating practicum hours. Even if you are not planning to apply to internship sites with research opportunities, a strong vita presents a good impression. Applicants with both a strong vita and adequate, quality practica experiences are likely to be perceived as bright, motivated, energetic, and ambitious. A student who comes from a program with substantial opportunities to be involved in scholarship but who has a light vita may be perceived in the opposite way-as someone who may have less abilities or who otherwise fails to take advantage of opportunities-which is not the first impression one wants to make with an internship application. It is a mistake to think that time devoted to research and scholarship is somehow a detriment to internship competitiveness. The simple truth is that it is not

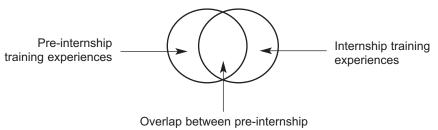
#### Don't Obsess About Practicum Hours

Make no mistake about it: practicum hours are an essential aspect of graduate training and qualifications for internship. Students must acquire more than a modicum of practicum experience in order to be ready for the next level of training acquired on internship. However, our observation is that students sometimes put too much emphasis on amassing as many practicum hours as possible in an effort to improve their competitiveness for internship. Data from internship training directors (TDs) show practicum hours are no higher than fifth on the list of criteria upon which applicants are evaluated. In the most recent survey (APPIC Member Surveys, n.d.), number of practicum hours was rated as very important by only 29% of TDs, compared to 81% for interviews, 45% for letters of recommendation, 41% for multicultural sensitivity, and 40% for essay responses. We consistently hear from TDs that once you've achieved the minimum threshold of hours, other factors become more important.

It's understandable that the accumulation of practicum hours has taken on such importance. After all, practicum hours are one of the criteria over which applicants have most control. However, students learn at different rates. One person may master a particular test in 10 hours whereas another may require 20 (e.g., Loe, Kadlubek, & Marks, 2007). In other words, input (number of accumulated clock hours) is at best a shaky proxy for outcomes. Therefore, we suggest that demonstrating competency in the core areas of practice is every bit as important as the sheer numbers of practicum or assessment hours. Competencies related to intervention and assessment can be stressed in essays, letters of recommendation, and during interviews.

#### You Aren't Competing for a Job — It Is Okay to Be Lacking in Certain Experiences

Evaluating your qualifications for internship can be counterintuitive. Many applicants, understandably, approach it as similar to applying for a job—the best applicants are those whose experiences and training match the demands of the position. *This is the wrong approach to the internship application process*. Quality internships take



and internship training experiences

their role in providing a capstone clinical training experience very seriously. As a result, they value students who have a variety of high-quality practica experiences with good supervision, but have no expectation that you have already done what it is you hope to do on internship. In fact, we have observed situations where applicants overtrained themselves out of internship opportunities because the internships report back to the DCT that "she has already done all of the experiences she is interested in doing here." Many internships value the opportunity to provide students training in unique clinical settings to provide the final polish on a well-rounded and broadly trained professional. Internships tell us they are looking for applicants who are well prepared to benefit from the internship experience whose interests match well with the internship's unique training opportunities.

#### At the Same Time, Sell Yourself and Your Experiences

Although internships are interested in meeting applicants' needs for training, your needs are only half the match. Internships are also interested in what you bring to the table. We have read many essays over the years that do an excellent job of explaining how an internship site meets a student's training needs ("Your site offers the forensic training I desire"), but say nothing about what the applicant has to offer. Remember that "fit" is a two-way street. In addition to showing how a site meets your training goals, you should also emphasize your prior training and qualifications (though see previous point about "training out" of a site). If a site offers opportunities in severe mental illness, and you have training in that area, note that as evidence of fit. Doing so will highlight that you can hit the ground running without needing overly intensive supervision, while simultaneously deepening your experience in a particular area. An ideal match between applicant and site might look something like the diagram to the left, which shows unique training experiences obtained in both the doctoral program and internship, yet some degree of overlap as well.

Finally, you should also emphasize other qualities that make you appealing to internships, such as a similar theoretical orientation, shared research interests, and collegiality. The most appropriate place to include this information is in the cover letter. Think of that as your letter of recommendation for yourself. Like any letter of recommendation, you want it to be as strong and specific as possible.

#### Make the Most of the Interview Process

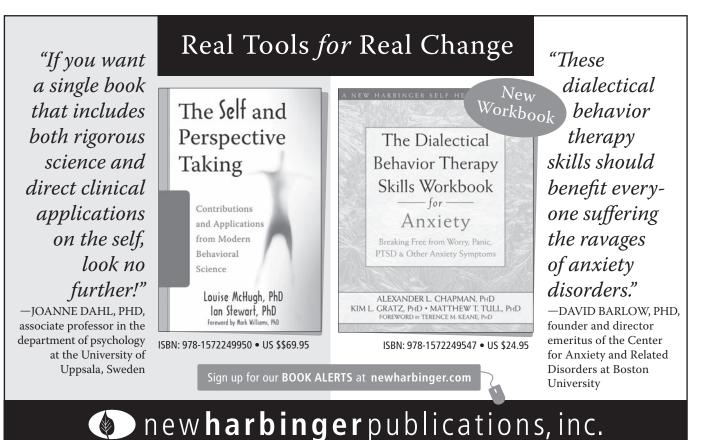
Traveling to interviews is expensive and time consuming. But it is a necessary part of the process. Why not make the most of it? You will meet many professionals in your field, some luminaries whose work you have admired. Interviews are an opportunity to explore common interests and network with these individuals. You may well cross paths with them again. Likewise, when you encounter other applicants on the interview trail, be friendly and view them as future colleagues rather than just the competition. Finally, your interviews will undoubtedly take you to places you've never been. Although schedules are often tight, take advantage of small opportunities to experience new locales. Whether it's a café near your hotel or just enjoying the view from the plane, soak in the experience.

#### Learn to Make Your Dissertation Sound Interesting

Throughout the internship interview process, you will be asked to talk about your dissertation many times. Most people who ask will likely have little to no experience or knowledge with the specialty area of your dissertation. Practice describing your dissertation to this audience. You should be able to provide a 60-second "elevator pitch" style description of your dissertation that any psychologist or psychology trainee could understand, find interesting, and perhaps connect with. Start with a description of the broad clinical problem or human experience that you are interested in, followed by a short, jargon-free description of your study. If the asker wants more details, she will ask. Consider these two examples of responses to the prompt "Tell me about your dissertation":

**Example 1:** "My dissertation is a four-cell randomized design with binge-drinkers. I am comparing BASICs feedback alone to moderation skills training and we have a control group and a combined group to test for additive effects of the two interventions. We are using the DDQ, BYAACQ and PBS scales as our main dependent variables. I am hoping to recruit 60 participants per cell so that we can do some cool Poisson distribution statistics." **Example 2:** "I'm interested in how to help people change risky health behaviors who might not necessarily be interested in changing those behaviors. With my dissertation I am examining this interest with college students who use alcohol in a risky way. I am comparing two different approaches: a motivational approach using personalized drinking feedback and a skills-training approach focused on teaching students skills to moderate their intake. The study itself is a randomized trial comparing those two approaches to both a waitlist control group and a group that gets both approaches."

The first example is full of technical details and jargon that may only interest or be understood by someone very familiar with that same literature. It also fails to demonstrate that the applicant has a "big picture" view of what the study might contribute to our broader understanding of people. The second example is interesting, understandable to a broader audience, and demonstrates a more mature view of the nature of the work.



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## The Questions You Ask Reveal as Much as the Answers You Provide

Applicants understandably spend a great deal of time trying to anticipate questions and formulate answers to questions that will be asked of them during interviews. Unfortunately, comparatively less time is spent developing insightful, informed questions to ask of supervisors. Many interviewers will turn over their time to you to ask questions. To prepare for this, arm yourself with questions that shows your knowledge of the training site and, if possible, the interviewer, rather than generic questions that show little knowledge of the site or rotation. The below examples illustrate the difference between each type of question.

**Example 1:** "Can you tell me a little about this rotation, like what kinds of clinical experiences I would get here?" [and a follow-up question] "Are you doing any research related to PTSD?"

**Example 2:** "I know that this rotation includes assessment of combat-related PTSD, which is very exciting because of my prior experiences working with trauma survivors. Can you tell me a little about how those assessments are conducted, such as which instruments are used?" [and a follow-up question] "I've read some of your research on Cognitive Processing Therapy with homeless veterans. Is that still ongoing, and are there opportunities for interns to become involved?"

The questions in Example 2 are clearly superior. They show that the applicant has done his or her homework and already knows something about the nature of the rotation and the supervisor's work.

#### Show Your Essays to Anyone Who Will Read Them

The AAPI essays are a critically important part of your application portfolio. The essays, especially the autobiographical essay, require you to think and write deeply and personally about yourself and your approach to psychology, and thus create a sense of vulnerability in many students. As a result of this anxiety, students are often tempted to avoid writing the essays as long as possible or avoid showing them to anyone else for fear of embarrassment or criticism. Both strategies are serious mistakes and will almost certainly result in your application not being as strong as it could be.

We recommend that you start working on the drafts of the essays early and return to them frequently. Tinker, try different approaches or ideas, brainstorm, and edit and rewrite. Once you have them in a coherent draft form, share them with many different people (peers, mentors, supervisors, etc.) and request feedback. The feedback will often be rewarding but sometimes will be surprising or even difficult to receive. In every instance it is valuable and you should consider all feedback carefully in preparing a final draft. Do not make the mistake of putting off starting the draft so long that there is little time left for feedback. It is likely that you will receive conflicting feedback. Different individuals may find the same essay both "too impersonal and boring" and "too personal and informal." You can drive yourself crazy trying to craft an essay that would please every possible reader. Our advice is that, ultimately, you should write the essays with which you are most comfortable.

#### Take Care of Yourself

The internship application process is serious business and demands substantial energy and time. For many graduate students, these two commodities are in short supply already. While you may indeed be burning the candle at both ends throughout this process, we would encourage you to try to reserve some time to preserve your health (both mental and physical). Exercise, eat well, and find time to connect with those close to you. Have a little fun once in a while. Once the interview season begins (usually mid-December through January), take extra precautions to guard your health. You will be traveling a great deal and can't really afford to be sick. Stay hydrated, eat a healthy diet, avoid overdoing alcohol or caffeine, and wash your hands frequently while traveling.

#### Do Send Thank-You Notes

APPIC has occasionally discouraged applicants from sending thank-you notes following interviews, noting that they will not affect an applicant's success in the match. Although one would hope that something so trivial as this would not make or break an application, there are some good reasons to send them anyway. Thank-you notes allow you to communicate your enthusiasm for a site after having time to reflect on your visit there. You can offer your (positive) appraisal of the site and emphasize aspects of the training with which you were impressed. It also can't hurt for internship training directors to see your name in a positive light one more time. Finally, it is simply professional courtesy to send a note of gratitude after being hosted by another professional.

#### **Final Thoughts**

We view it as a bit of a tragedy that the internship application process has become a dreaded, angst-filled experience for many students. Despite the understandable anxiety related to the possibility of not matching, we remind you that there can be much to enjoy about the experience as well. While preparing the applications, you will get a chance to reflect upon your own values and goals, sometimes revisiting that sense of purpose that may have been forced to the background during the dog days of dissertation manuscripts and core courses. During interviews, students frequently report back to us what a rewarding experience it is to be able to reflect upon one's professional growth and sophistication that hadn't been fully appreciated or acknowledged while the growth was occurring. Indeed, the interview process for many students is a first taste of a really professional experience, foreshadowing postdoc or job interviews that are soon to come. The transition from graduate student to professional that once seemed unthinkably distant is suddenly quite near. Our hope is that, with your best efforts, the support of your peers and faculty, and perhaps some of this advice, you will achieve the reward you certainly deserve—news of a match to an internship of your choice on match day.

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## Researchers and Therapists on Treatment of Panic Disorder

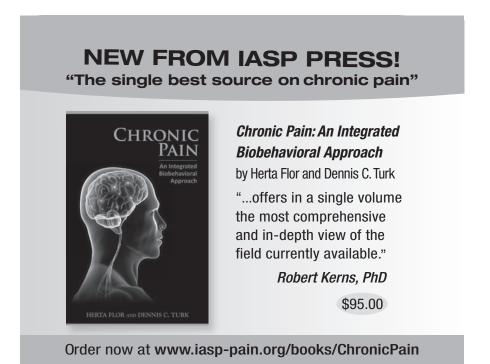
Paul Lehrer, University of Medicine and Dentistry of New Jersey–Robert Wood Johnson Medical School

Reading Marvin Goldfried's (2011) interesting article in *the Behavior Therapist* about generating research questions from clinical experience prompted me to point out an important implication of some of his findings: that more experienced therapists report greater success with panic disorder, and that they also more often used breathing retraining, a technique that is granted only a minor role (if that) in accepted behavioral treatment protocols. I believe that this may point to a need for more sophisticated training in applied psychophysiology for behavior therapy practitioners.

As a clinician and researcher specializing in behavior therapy and applied psychophysiology, the combination of therapist experience and use of breathing control methods does not surprise me. Research on dysfunctional breathing shows a strong relationship with a number of disorders involving anxiety and psychosomatic symptoms (Courtney, 2009). Although it is possible that more experienced therapists may have better effects than others because of more skill in behavioral and cognitive components of treatment, it also is possible that their use of breathing retraining may have added to the effect.

Indeed, breathing retraining must be done with special skill. Although slow abdominal breathing may play a role in breathing retraining, it is not the only component. It is true that a greater thoracic component in breathing tends to accompany anxiety and stress symptoms and probably contributes to them (Schleifer, Ley, & Spalding, 2002). Greater use of accessory muscles in the neck and chest for breathing increases muscle tension in "the work of breathing" (Aaras, Horgen Bjorset, Ro, & Thoresen, 1998), thus increasing sympathetic arousal, presumably through the well-known muscle-sympathetic reflex network system (Wallin, 2007; Wallin et al., 2003). However, simple use of "abdominal breathing" may not be sufficient to solve the problem. Although thoracic breathing involves increased muscular effort and thus may increase the force of inhalation (and lead to hyperventilation), the airways of panic disorder patients are often functionally more dilated than average (Carr, Lehrer, Hochron, & Jackson, 1996), such that the same amount of respiratory effort may still yield greater ventilation (and perhaps contribute to hyperventilation). Uneven breathing is also characteristic of panic disorder, and may contribute to hyperventilation symptoms in this disorder (Wilhelm, Gevirtz, & Roth, 2001).

Indeed, many of the symptoms of panic are the same as those produced by hyperventilation. Hyperventilation is defined as a



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decrease in blood levels of carbon dioxide, which can be easily and noninvasively (although approximately) measured by breathing into a capnometer, thus producing the measure called end-tidal carbon dioxide (ETCO<sub>2</sub>). Mental health practitioners often use these devices as part of biofeedback treatment for hyperventilation symptoms. They now are easy to use and of nominal cost. (Sometimes units that are unfit for the OR but fine for biofeedback treatment are available for free from engineering departments at local hospitals.) Hyperventilation occurs when the amount of air inhaled over a period of time is greater than metabolic need. When this happens, red blood cells become "stickier" to oxygen and do not release it to the muscles, brain, heart, or other organs; and blood vessels constrict. This combination causes symptoms of breathlessness and derealization (because the brain, actually, is slightly hypoxic), as well as muscle tension, lightheadedness, tremor, chest tightness, and a pounding heart. These symptoms can cause panic in someone who is afraid of such body sensations

Hyperventilation is not necessarily caused by fast breathing. Resting respiration rate has been found to be slower than average in panic disorder patients (Carr et al., 1996). Hyperventilation in panic disorder may stem from breathing more deeply and unevenly, with more frequent sighs and yawns. Thus a more nuanced and comprehensive approach to relaxed breathing might be needed than simply teaching slow abdominal breathing. Several such approaches have been proposed, including "whole body breathing" (Van Dixhoorn, 2007), the Papworth Method of relaxed breathing (Holloway & West, 2007), the Buteyko Breathing Technique aimed at reducing hyperventilation (Bruton & Lewith, 2005; McHugh, Aitcheson, Duncan, & Houghton, 2004), and biofeedback training to increase ETCO2 (Meuret, Wilhelm, Ritz, & Roth, 2008; Meuret, Wilhelm, Roth, 2001). Specific research on treatment of panic disorder has been done on biofeedback training to increase ETCO<sub>2</sub>, showing effects that are both clinically and statistically significant (Meuret, Rosenfield, Hofmann, Suvak, & Roth, 2009; Meuret, Rosenfield, Seidel, Bhaskara, & Hofmann, 2010; Meuret et al., 2008)

Biofeedback training to increase heart rate variability also has been used as a breathing retraining method (Lehrer, 2007). The technique is taught in a few sessions, using equipment that is readily available, inexpensive, and easy to use. It

involves learning to breathe at a slow rate (specific to each individual) where heart rate effects of breathing interact with those of a reflex controlling blood pressure. The technique directly increases parasympathetic autonomic activity, and increases gain in the baroreflex system, which directly controls blood pressure fluctuations and is systematically related to emotional reactivity. Although the method has not been studied specifically as a treatment for panic disorder, is has been found to help disorders with overlapping symptoms and high panic disorder comorbidity, including depression (Karavidas et al., 2007), posttraumatic stress disorder (Zucker, Samuelson, Muench, Greenberg, & Gevirtz, 2009), and asthma (Lehrer et al., 2004).

Salutary clinical effects of various Yoga techniques also have been demonstrated on various kinds of anxiety, but no studies have yet appeared specifically on panic disorder, and variability among Yoga methods has yielded more inconsistent research results (Kirkwood, Rampes, Tuffrey, Richardson, & Pilkington, 2005).

The problem is further complicated by the fact that dysfunctional breathing is multidimensional, such that various indices of it, including  $\text{ETCO}_2$ , hyperventilation symptoms, thoracic component in breathing, do not correlate highly with each other, yet all are related to various symptoms of anxiety and stress-related disease (Courtney, 2009), including panic; and catastrophic interpretation of symptoms plays an additive role, but is not the sole determinant of panic (Ley, 1989). Thus, a multidimensional problem with a major contribution to panic may require a sophisticated and multidimensional treatment approach.

Similarly, although panic disorder research using progressive muscle relaxation suggests it has a minor role, if any, in treatment of the disorder, the method used is almost always rather superficial. It has few similarities with the method proposed by Jacobson (1938): i.e., learning profound muscle relaxation with a criterion of < 1microvolt of surface eletromyogarphic (sEMG) activity in multiple sites, avoiding suggestion, and using the method of diminishing tensions to teach awareness of very small levels of tension. Since the symptoms of panic are primarily psychophysiological, it makes reasonable sense that a method that effectively teaches symptom control should play a useful role in behavioral treatment. Some positive effects for muscle relaxation training have been found for panic disorder, as well as other anxiety disorders (Conrad & Roth, 2007)

This all is counter to the common notion that treatments focusing on panic symptom reduction may be countertherapeutic in panic disorder, that breathing exercises are a form of safety behavior, and that they even may interfere with more effective cognitive and exposure components in treatment (Schmidt et al., 2000). However, it also is possible that the poorer effects of relaxation and breathing training in empirical studies may reflect the inadequacy of the training technique used, not of psychophysiological training per se in treating panic. Nevertheless, it is notable that a specific connection between changes in panic and changes in any specific physiological measure has not yet been found (Conrad & Roth, 2007; Roth, 2010).

Although my own clinical experience should not be taken as empirical proof, I have indeed had the experience of treating numerous panic disorder patients with a combination of the methods described above, and found the problem to resolve before I have had a chance to apply the betterresearched component of exposure therapy.

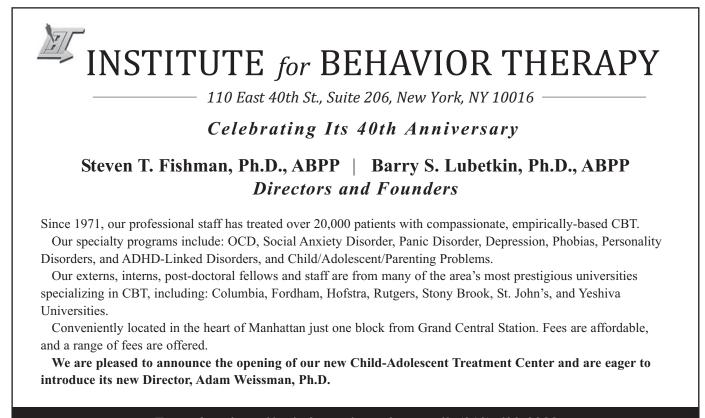
I therefore would predict that treatment of panic disorder will show major changes as research progresses and knowledge of more recent results enters the mainstream. Indeed, in my opinion, training in applied psychophysiology should be a standard part of the curriculum in the training of behavior therapists. Current "empirically validated" protocols should not yet be engraved in concrete.

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Research Forum/Behavioral Assessment

## Test Construction by the Manual: Detailing (and Demystifying) the Process of Scale Development

#### Danielle J. Maack, University of Mississippi Medical Center and University of Mississippi

John Young, University of Mississippi

The literature is abundant with articles on measure development, but what we typically see is a polished end product. We rarely get a glimpse of the actual *process* of measure development complete with the ups and downs that can occur. This article presents a picture of the authors' experiences in this process of scale development based on the "Procedures and Sequence of Content Validation" detailed by Haynes, Richard, and Kubany (1995).

Just before the fall 2010 semester began, the two authors of this paper had a conversation that went something like this:

DANIELLE: I've studied reinforcement sensitivity theory since I began graduate school, and the fight, flight, freeze system is central to understanding how that impacts behavior. Nobody does much in the way of research on that, so I think it would be a good thing to investigate.

JOHN: Cool. I have some graduate students and a big undergraduate research pool. How about we do that?

#### DANIELLE: We can't . . .

JOHN: Uh, why not . . . ?

DANIELLE: Because there's not a measure for the FFFS [fight, flight, freeze system]! That's constantly frustrating about this area of research—everybody keeps saying that somebody should look into that, and that a good measure is necessary first, but nobody has followed that advice and come up with one... to new insight into cardiovascular regulation? Acta Physiologica, 190, 265-275.

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. . .

JOHN: Why don't you do it?

DANIELLE: Really? I'm neither a psychometric researcher nor a statistician. I wouldn't know where to begin.

JOHN: Well, fortunately you don't have to. Let me email you this article . . .

Thus began the first of a series of conversations that led to the development of a measure of temperamental fear (the tFEAR; Maack, Buchanan, & Young, 2011). This particular exchange culminated with John emailing Danielle a published, practical guide to constructing a measure (Haynes et al., 1995). The following article details some of our reflections and insights during this process, including what to do when things do not go exactly as planned.

#### Okay ... Now What?

The article by Haynes and colleagues (1995) not only provided a template for the process of scale construction, but also detailed common mistakes or oversights that can be made during the process. The natural, and recommended, first step was to specify the construct targeted by the instrument. This at first glance appeared to be easy. For example, we wanted our scale to target the assessment of temperamental fear. How were we to define temperamental fear operationally, however? What was to be included and excluded from this

measurement? What facets and dimensions of the construct would be covered? For temperamental fear, this target included the traitlike assessment of nonphobic fear, including the domains of fight, flight, and freeze as opposed to an assessment of state or trait anxiety and/or behavioral inhibition.

After the construct was defined, it was next important to determine what the intended functions of the instrument were going to be. For example, would the instrument be implemented for diagnostic assessment, brief screening, research purposes, etc.? Knowing the intended uses of the scale a priori helped guide scale development, as well as determination of the best assessment method (e.g., self-report, structured interview, behavioral tasks). The tFEAR was designed to be a brief, self-report measure of individual differences in temperamental fear. Once we determined the measure would be a paper-pencil, self-report instrument, the next (and undoubtedly critical piece) was to begin generation and selection of items. Easy, right?! We were scholars with almost two decades of combined graduate training, both with biology backgrounds, and well trained in how to conduct research with a focus on anxiety. We could surely trust our personal, clinical knowledge and understanding of the construct and put together a list of items and just like that our scale would be complete.

Or . . . perhaps we could take a more scientifically based approach to item generation. This is where knowledge of the construct under investigation was needed, but not just our personal knowledge. What literature was there to support items/questions to be generated? Where could one find practical and useful examples? This can be a grueling process (and was), but extremely informative as well. Everyone probably has a thought of what temperamental fear might mean, especially considering high school science class teaching about the evolution of the fight, flight, freeze system, but how should this have been reflected in an assessment? Theoretically, there was literature detailing the fight, flight, freeze system as related to Gray's revised reinforcement sensitivity theory (Gray & McNaughton, 2000) and ways of assessing defensive fear based on animal research (see Blanchard et al., 2001; Perkins, Kemp, & Corr. 2007).

A format defined and a theoretical basis clearly explicated, we began to generate items for the scale. Very quickly, however, we determined that we might not be the best progenitors of items descriptive of the domains of study, in that many of the stimuli we produced might not be accessible to the average end user of the assessment. Given that we had a more knowledgeable and nuanced view of the constructs, our collective ability to produce accurate and targeted words that would resonate with the typical population of study (i.e., college undergraduates or the general population) was compromised. Fortunately, we were able to use this knowledge and relevant background literature (e.g. Blanchard et al., 2001; Perkins et al., 2007) to generate vignettes describing individuals in situations where a specific element of FFFS was depicted (i.e., fight, flight, freeze) as recommended by Haynes et al. (1995). Each of the nine vignettes (three per domain) created was subjected to lab review and revision prior to being given to a sample of 74 undergraduates. This sample received instructions to provide the first words that came to mind to describe the situation they had just read. On the basis of a qualitative review including a frequency count of participant responses (i.e., content analysis; Miles & Huberman, 1994), we developed an initial item pool for the measure comprising 64 words. In this step we were reminded that scale development is not a purely quantitative process; relying on qualitative theory for the development of items was also important.

Again following Haynes et al.'s (1995) recommendations, we then subjected this item pool to external review by contacting experts and asking them to report (a) what domain(s) each item best captured (i.e. fight, flight, freeze, or none); (b) how important each item was to include in the scale (rating 1-10); and (c) any other items that came to mind as words we might have missed. This part of the process was exciting and interesting, but also frustrating. It was, as it often is, difficult to capture the attention of busy professionals (many of whom we did not know personally); hence, many solicitations to leading experts in the field did not lead to participation. One senior and well-known researcher who did return communications did not think that an item rating scale was a meaningful way to assess the constructs of interest. This response instilled some self-doubt, to say the least, but ultimately made our rationale for study and efforts toward scientific test construction much stronger. If we were going to pursue development of our measure despite disagreement from someone so learned and established, we needed to be on very solid footing. Additionally, many respondents also offered general confirmation of the results of our qualitative pilot study, which reinforced that we were on the right track. When all was said and done, this qualitative expert review process was extremely useful and served to refine the comprehensive list to 55 items that was used to begin quantitative examination of the measure. At this point we were ready to format the instrument, write brief instructions, and collect data from a sample of sufficient size for factor analysis. Our initial sample consisted of 365 individuals completing the initial 55item iteration of the tFEAR.

#### Everything Is Going Exactly According to Plan

If you are anything like us, you get excited when a final data set is assembled. You've poured days, weeks, months, and sometimes years into the effort, and you're ready to answer the questions you set out to research. This describes the scene well when we were opening the data file from the first round of collection. After much time and effort, we were finally armed with everything necessary for an initial exploratory factor analysis (EFA) that would help us complete our measure. Anticipation was palpable. and we were ready for the moment where we could say "Voilà! There are exactly three factors and a huge pool of great items! Now we move to stage two and confirmation of our scientific genius!" The first step toward that beautiful moment was conducting several rounds of EFA, consistent with procedures for test construction analysis (e.g., Preacher & MacCallum, 2003). This entailed pushing a lot of buttons in SPSS, sifting through the factors and individual item loadings, removing items that failed to load from the analyses, pushing those SPSS buttons again, and assembly of the final results at the end of the process.

We were getting closer to an answer, and then ... no. No, NO! It could not be. The results went from three factors with moderate item loadings to two factors with strong item loadings. Frantically, we consulted with a colleague whose strong background in statistics makes her our go-to authority in situations such as this. We wanted her to point out an error in the calculations, or a different rotation that could produce scale convergence, or anything that would mean our project could be successful. Unfortunately, she confirmed that we did everything right, and the final iteration of the measure was appropriately cast as two factors with strong item loadings. What were we going to do?

#### Pick Yourselves Up and Dust Yourselves Off

After getting over the initial shock of results inconsistent with what we thought was going to happen (and not particularly publishable), we started to think about what went wrong. We followed the detailed guide for developing a measure, including a strong connection to theory and copious attention to generating stimuli that could be easily understood by the end users. Why did it not "work" the way it should have after all that extra effort and attention to detail? At this point we became sad, and as good cognitive behavioral therapists we began to attend to and restructure our thoughts relative to this negative emotional state. Instead of focusing on what went wrong, we worked to determine what we could learn from the results. This necessitated a close look at items comprising the two factors resultant from our first phase of research. As it turned out, we had constructed a couple of really great flight and freeze subscales, with items loading mostly in the .8 to .9 range, but a lousy fight subscale. In short, what we learned was that there was something about the "fight" stimuli that was not being perceived the way we wanted.

Now that we knew what did not work, we resolved to return to the drawing board and construct something more appropriate. Informed by what went wrong, in combination with theory relevant to the constructs being assessed, we changed course and developed a new fight subscale. This consisted of more tangible, simply stated items deemed relevant to the description of fight, but distinct from the other domains of flight and freeze, which we knew were working well given the data. It is of note that our go-to stats authority is also a trained psycholinguist, which proved very helpful in confirming appropriateness of

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newly selected fight items. We highly recommend consultation with such professionals when trying to determine the semantic activation of particular words. Armed with a revised fight scale, we began the process of participant recruitment anew, ensuring that there was no overlap with the first phase of study. Once data were compiled we were substantially apprehensive to begin a new round of analyses. As SPSS opened and a new EFA was being conducted, we nervously awaited our output . . . and . . . Voilà! There they were: three beautiful factors with strong item loadings on each. Much excitement ensued, and we knew that all that awaited was a third, nonoverlapping sample to confirm the initial results and provide test-retest data to assess stability. Gloriously (and thankfully), this worked as intended and our final instrument version was confirmed.

#### Now You Have a Scale.... The End?

What we have learned from this arduous, yet rewarding, process is that when looking at our submitted paper, it looks pretty much the same as other psychometric papers that may not have used these detailed guidelines (albeit with generally higher item loadings). By following these formal methods (Haynes et al., 1995), however, and investing extra resources, we are more confident in the development of this scale and have hope for its utility as a cornerstone for more programmatic research. The entire project was, after all, a means to answer bigger questions about FFFS as it relates to reinforcement sensitivity theory.

In closing, we'd like to think that this is only the foundation for many more studies that will answer those bigger questions. We may not know where it will lead, but we are eager to find out and to discover more along the way. Our cognitions looking forward may best be reflected in the loose paraphrasing of a famous warning (Beck, Rush, Shaw, & Emery, 1979): The course of science, like true love, is rarely smooth. But in the end both can be extremely rich and rewarding, especially if where you ended up was not where you thought you would be.

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— Hinton et al., Cognitive and Behavioral Practice, in press, accepted manuscript; "Acceptance and Mindfulness Techniques as Applied to Refugee and Ethnic Minority Populations With PTSD: Examples From Culturally Adapted CBT" doi:10.1016/j.cbpra.2011.09.001

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"The behavior therapist must avoid the error of assuming that science, which is fundamentally a point of view, is overly dependent upon matters of techonology, apparatus, and statistics."

Franks & Brady, 1970, Behavior Therapy, Vol 1, editiorial, pp. 1-3

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REPRESENTATIVE-AT-LARGE (2012-2015)

 $\approx$ 

SECRETARY-TREASURER (2013-2016)

NAME (printed)

SIGNATURE (required)

## 2012 Call for Nominations

**Every nomination counts!** Encourage colleagues to run for office or consider running yourself. Nominate as many full members as you like for each office. The results will be tallied and the names of those individuals who receive the most nominations will appear on the election ballot next April. Only those nomination forms bearing a signature and postmark on or before February 1, 2012, will be counted.

Nomination acknowledges an individual's leadership abilities and dedication to behavior therapy and/or cognitive therapy, empirically supported science, and to ABCT. When completing the nomination form, please take into consideration that these individuals will be entrusted to represent the interests of ABCT members in important policy decisions in the coming years. Contact the Leadership and Elections Chair for more information about serving ABCT or to get more information on the positions.

Please complete, sign, and send this nomination form to Raymond DiGiuseppe, Ph.D., Leadership & Elections Chair, ABCT, 305 Seventh Ave., New York, NY 10001. Nomination forms can be also be send via fax (212-647-1865) or via email (membership@abct.org). If emailing, please send nomination form as a PDF attachment.