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The Meeting of Trauma and Cognitive Science: Facing Challenges and Creating Opportunities at the Crossroads

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SUMMARY. This article argues for the necessity of a multidisciplinary approach to traumatic stress studies. The intersection of cognitive science and trauma offers both challenge and potential. The current article considers these challenges and opportunities in light of lessons learned at the 1998 Meeting on Trauma and Cognitive Science, held at the University of Oregon. The article will discuss the creation of this volume from the 1998 Meeting. [Article copies available for a fee from The Haworth Document Delivery Service: 1-800-342-9678. E-mail address: <getinfo@haworthpressinc.com> Website: <<http://www.HaworthPress.com>> © 2001 by The Haworth Press, Inc. All rights reserved.]

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Trauma research presents a number of challenges to investigators. Some of these challenges lie in larger societal issues, such as denial, while others lie in traditional division of areas within psychology. The intersection of cogni-

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tive science with traumatic stress studies offers exciting solutions to some of these traditional challenges, just as it creates new challenges. The current article will briefly consider these challenges and opportunities in light of lessons learned at the 1998 Meeting on Trauma and Cognitive Science.

HISTORY OF TRAUMA STUDY

During the last two decades, there has been an explosion of research and writing on the history of traumatic stress studies. The increased attention paid to the history of the study of trauma encourages an awareness of the socio-political forces that influence research and clinical work. An historical view reveals that the field has experienced years during which the recognition and systematic study of the effects of trauma periodically disappears (Herman, 1992; van der Kolk, Weisaeth, & van der Hart, 1996).

Given the tendency for periodic "amnesia" regarding the existence and effects of trauma, one of the most important advances over the last 20 years has been rather basic: the recognition that traumatic experiences and disorders related to trauma are actually common. Prevalence studies have been conducted across a range of traumas, resulting in estimates that up to 72% of American adults report having been exposed to some form of traumatic event in their lifetimes (Elliott, 1997). Trauma has recently gained attention as a public health issue, an indication that our thinking has shifted from seeing trauma as the problem of the individual to seeing trauma as a problem for society.

With awareness that traumas do happen, researchers have had to confront new issues, including the increased politicizing of the topic. The influence of socio-political context has been especially intense around issues of memory for trauma. Personal memory for traumas has been a hotbed of debate and concern. Questions about memory for trauma often ignite issues of belief (did an event really happen?) and narrative (how, when, and to whom do we speak about trauma?).

In addition to the politics surrounding the field, researchers have found themselves in the position of challenging societal denial about trauma. When we research trauma, we ask society to witness the dark side of nature and humans. We ask society to be painfully aware that humans hurt one another and that so-called "acts of God" send earthquakes and other natural disasters shattering through our communities. Trauma research reminds society that we are all vulnerable to the seeming chaos of trauma. Trauma research also reminds us that many of the most malignant traumas are caused by humans, and that our social world can either encourage or discourage the likelihood of such events. To the extent that people realize that human traumas are in part a function of social structure, and that the impact of even natural disasters

depends on social structure, the more people appreciate their own responsibility to take action to help trauma victims and to change the problematic aspects of social structure. Perhaps some of the resistance to trauma research is related to the increased feelings of vulnerability and responsibility that can come from knowing more about human trauma.

Based on the last decade of research, we know that how we discuss, frame research questions, and interpret findings regarding memory and information processing for trauma can be a very slippery slope. We know that beliefs about trauma can quickly transform into apparent debates and newspaper headlines. We know that trauma researchers and clinicians can be marginalized and isolated for their work.

Simultaneously, trauma researchers have faced another isolating hurdle in terms of where we belong in the traditional view of areas within psychology. Where should trauma research be catalogued in the various professional conferences or within academic departments? Developmental? Cognitive? Clinical? Though this question may at the surface appear to be a game of semantics, the question gets at the very core of how traumatic stress is identified and viewed.

Where Does Trauma Research Fit?

Psychology departments and professional organizations frequently divide psychology into major fields of study, including cognitive, clinical, neuroscience, social, personality, and developmental psychology sub-areas. Within these area divisions, we build our theories and test our predictions. These boundaries have served our field well at times, breaking unwieldy questions down to reasonable size for empirical research.

Academic psychologists have grown accustomed to the divisions. We have grown comfortable with the conferences and journals that reinforce our notions of which research questions belong to whom. Many university psychology departments are divided into these distinct areas, either implicitly or explicitly, training the next generation of students within this paradigm. In some departments, the students and faculty within each sub-area are physically separated into wings of buildings or even different buildings. In many ways, psychological science has moved forward and benefited from the notion of separate areas within psychology by making smaller and more manageable communities of scholars and by restricting the range of research questions to a researchable size.

Yet these divisions have at times failed us, particularly in the case of trauma research. In dividing psychology into sub-areas, we necessarily create arbitrary divisions between constructs. The divisions are likely to outlast their usefulness due to the social structures that get built around the intellectual divisions. Trauma researchers have, at times, struggled to find their place

amidst the more traditional divisions in psychology, as they both challenge and seek to work within the current paradigm. However, trauma researchers inevitably find that any one of the traditionally defined areas within psychology does not have adequate scope to address the myriad ways that trauma influences human functioning. We are ultimately ill served by the arbitrary boundaries that implicitly assume human behavior can be divided neatly for the benefit of the researcher. As trauma researchers, we cannot afford to have training in only one particular area and neglect other lines of research that could profoundly inform our study. Most important we cannot train a future generation of trauma researchers without a multidisciplinary approach.

Trauma, therefore, challenges the very divisions on which so much of psychology has been organized. Trauma research requires of us a broad expertise: a willingness to seek out training from our colleagues; openness to new paradigms, methodologies, and analyses. Trauma research often requires a multidisciplinary approach. One such promising approach lies at the intersection of trauma and cognitive science.

1998 Meeting on Trauma and Cognitive Science

In July, 1998, 14 experts whose work employed creative bridges between trauma and information processing came together at the Meeting on Trauma and Cognitive Science at the University of Oregon. The meeting was organized by Jennifer J. Freyd (University of Oregon) and Chris R. Brewin (University of London), with assistance by Anne DePrince and Vonda Evans (University of Oregon). Presenters included Michael Anderson, Bernice Andrews, J. Douglas Bremner, Chris Brewin, Catherine Classen, Robyn Fivush, Jennifer Freyd, Ira Hyman, Terence Keane, Mary Koss, John Morton, Kathy Pezdek, Jonathan Schooler, and Bessel van der Kolk. These participants represented diverse origins within traditional divisions of psychology, including developmental, cognitive, cognitive neuroscience, social, and clinical areas. They were united by common interests in information processing and trauma.

The goal outlined for the meeting was to share knowledge and theory relevant to understanding the way in which trauma interacts with information processing. In particular, the meeting was intended to focus on how traumatic information is encoded, stored, and later retrieved from memory. A number of related topics were considered, including disturbances of consciousness during and after trauma, the accuracy of memory for trauma, the need for multi-level models of memory, the effects of early trauma on subsequent information processing, and inhibitory processes in memory. The intention of the conference was to focus on research while keeping in mind the significant ethical, clinical, and societal implications of trauma work.

The conference opened with a welcome from the University of Oregon

research community made by Don Tucker, as well as a special address by University of Oregon President Dave Frohnmayer. Approximately 150 people attended the Meeting presentations on July 17, 18, and 19 on the University of Oregon campus. The audience met the presenters with enthusiastic and challenging questions about empirical data, conceptualizations of trauma and clinical implications of the discussions (see Brewin & Andrews, in this volume, for a report on the question and answer periods). As the conference progressed, each presentation galvanized the next. Presenters incorporated previous comments, occasionally looking up from the prepared talk to expand on thoughts provoked earlier in the day. Last-minute changes inspired by the previous speakers and scribbled in the margins of many presenters' talks testified to the truly collaborative atmosphere created by this group. The talks, discussion, and questioning pushed new conceptualizations and challenged old paradigms. Perhaps most striking was the community that developed quickly between the participants as they debated the latest theories.

In retrospect, the words do not come easily to describe the gathering, except perhaps to note the profound humanity of it: a humanity that reminded each researcher that the topic of discussion was not an impersonal group of subjects somewhere, but real people's pain and triumphs in the face of trauma; a humanity that always kept the ethics and implications of the conclusions drawn from data at the forefront of discussion; and a humanity that joined those who, at times profoundly disagreed, and at other times ardently agreed, in simultaneous roles as colleague, teacher, and student.

Current Volume

Many of the contributions to the current volume came directly from presentations, while other articles represent extensions of material presented during the conference. We hope that the volume conveys to the reader the excitement of the multidisciplinary approach taken during the conference. The ideas represent new and challenging conceptualizations, compromises, and questions. While this volume is a report on where these experts see the field of trauma now, it is perhaps even more an inspiration and challenge for future research.

The ideas in this volume represent a community of researchers coming together to forge a new way of thinking and working. Though the researchers came from different theoretical perspectives, held different personal opinions, and had different training backgrounds, their participation in the conference and this volume bridges one to the other. They have forged a community with diversity and respect. They have, in essence, modeled an alternative to approaches that are grounded in traditional delineation of areas, and have made an important contribution to psychology as a whole. They show us that trauma cannot be taken out of context, and that it cannot belong to any one

area of psychology. Rather, working to understand trauma and its effects on the individual, as well as society, is a responsibility we share, and it requires our joint efforts, collaboration, and respect.

Volume Organization

The current volume is organized to preserve the order of presentations from the 1998 Conference. The volume begins with two articles by van der Kolk and colleagues. Much as he did at the conference, van der Kolk and colleagues open by capturing the spirit of the volume in terms of interfacing cognitive and clinical issues. These articles echo that spirit, expanding on two different aspects of the conference presentation. Articles by Pezdek and by Hyman and Oakes take the reader through important considerations of "false memories" and suggestibility. These articles reflect the importance of addressing difficult questions, assumptions, and personal beliefs with regard to this much-politicized area of the field. Hyman (1998) captured the essence of the tensions we must maintain when evaluating work on false memories during the question and answer period at the conference. He noted, "It's a very uncomfortable thing, but I think both as scientists in terms of some of these questions and as individuals in terms of particular abuse histories, sometimes the thing to do is just maintain some uncertainty. It's not a comfortable thing, but that may be really the safest thing to do, rather than to force a conclusion one way or another, which really may not be possible."

Schooler's article brings to the volume an important piece in terms of focusing on individual accounts of memory for trauma in order to push the bounds of current theory, which was very much a critical contribution of his to the conference as well. Schooler offers a refreshing qualitative approach to study in this area, and captures the balance between science and human experience, as he did during the conference. During the question and answer period at the conference, Schooler (1998) noted, "There is a certain gratification and excitement about making progress on scientific issues . . . when your research is looking into other individuals' tragedies, there is this balance that we have to maintain, you have to not confuse the excitement of the research with the really horrendous negativity of the trauma."

The next three articles, authored by Freyd, Bremner and Anderson respectively, take the reader from applying cognitive paradigms to trauma research somewhat broadly, to a narrower cognitive science approach, and then one level deeper to propose a mechanism for retrieval-induced forgetting. Leading off this triumvirate, Freyd and DePrince review their recent research on dissociation and attention, combining the training and paradigms of cognitive psychology with application to theoretical developments in clinical domains. This article reviews a program of research aimed at drawing on multidisciplinary methods and expertise. Following Freyd and DePrince, Bremner com-

plements the contributors who bring cognitive methods to this volume by introducing a cognitive neuroscience viewpoint. In Bremner's article we see the spirit of multidisciplinary approaches as he reviews studies based in cognitive neuroscience with participants from clinical populations. Picking up on the exciting advances in cognitive neuroscience, Anderson's creative article challenges the reader to consider the applications of a model of active forgetting that speaks to mechanisms that may underlie some forms of traumatic forgetting.

The final three content articles are authored by Koss, Fivush, Classen and their colleagues. These articles, together, draw in perspectives on how the narrative of trauma intersects with psychological distress, healing, and therapy. These researchers balance the depths reached when we talk with those who have experienced trauma, and the approaches we take to these issues as scientists. Koss and colleagues report on exciting quantitative and qualitative data that bring in the survivors' voice. This valuing of the survivors' voice in empirical research mirrors the critical and challenging issues (e.g., socialization of women, importance of considering culture) Koss raised during the question and answer period. Discussing a study with women who reported rape and were of Hispanic Catholic background, Koss (1998) noted, "I can just anecdotally tell you, in that group, that there is such a shame attached to this, and such a hesitancy to talk about it, that you even can observe it at the level of not being willing to use language."

Like Koss and her colleagues, Fivush and colleagues report on a large-scale study that makes such an important contribution to the field in terms of reaching broad ranges of people. The article by Fivush and colleagues takes on the important issue of autobiographical memory disturbances in childhood abuse survivors. Fivush and colleagues consider the important question of the impact of trauma on autobiographical memory for mundane events in childhood, not just memory for abuse itself. Classen and colleagues bring many of the issues raised throughout the volume together in reporting on pilot work at Stanford Medical Center looking at treatment for PTSD with women who were abused in childhood. In so doing, Classen and colleagues raise central questions about how interventions should be designed and implemented based on our current understanding of research and politics in traumatic stress studies. Classen (1998) raised a related point during the conference when she asked, "If I said to a client, 'tell me more about that experience,' is that a technique?"

Brewin and Andrews bring together many themes from the full conference in their review of the question and answer periods. In synthesizing the question and answer periods, they offer the reader more insight into the breadth and depth covered during the conference, as well as create a framework by which we can pursue the questions that will challenge the field to continue

moving forward. The final article echoes the spirit of collaboration and integration found throughout this volume. We hope that the volume as a whole provides a road map for multidisciplinary and collaborative approaches in the field of trauma.

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