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INTERNATIONAL HANDBOOK OF MULTIGENERATIONAL LEGACIES OF TRAUMA

Yael Danieli, PhD

Group Project for Holocaust Survivors
and Their Children
New York, NY

This is the first book on traumatic stress that examines multigenerational effects of trauma across various victim/survivor populations around the world from multidimensional and multidisciplinary perspectives. Its structure follows the developmental foci of this field. Following a contextual introduction, the book is divided into eleven sections that span the decades from World War II to the present, covering the intergenerational effects of genocide, the fall of communism and the aftermath of repressive regimes, crime and urban violence, and the plight of indigenous peoples. There are chapters on infectious and life-threatening diseases as well as the biology of intergenerational trauma; the final chapter attempts to synthesize those preceding it. A brief overview introduces each section.

Part I consists of five chapters that explore the nature and prevalence of multigenerational effects of the Nazi Holocaust on its victims and perpetrators from theoretical, clinical, and empirical viewpoints. Auerhahn and Laub, using case examples, delineate 10 forms of intergenerational knowing (remembering) trauma, modes of transmission, and implications for prevention and healing. Felsen reviews non-clinical controlled studies done in North America up to 1996, addresses the discrepancies between clinical and empirical reports, and proposes a unifying conceptual framework for various findings. Solomon reviews and classifies all published empirical studies carried out on the "second generation" in Israel up to 1995. Focusing on grandchildren of Nazis, Hardtmann describes psychoanalytically parents' use of denial, splitting, projection, and projective identifications to defend against, yet transmit to them, their past, and suggests treatment recommendations and further exploration. Bar-on and collaborators describe seminars for German and Israeli youth struggling to work through their personal and collective identities as they confront the Holocaust and each other.

Part II has six chapters that report on family and intergenerational sequelae of WWII. Bernstein touches upon intergenerational implications of conflicts in adjustment in American prisoners of war, while Nagata, using a national survey and in-depth interviews, reports multiple effects of the Japanese-American internment upon the third-generation (Sansei) children of internees. From Japan, focusing

on Hibakusha Nisei (children of atomic bomb survivors), Tatara illustrates the importance of the physiological, political, socioeconomic, cultural, and social dimensions to understanding their intergenerational trauma. Three chapters describe groups of Dutch "children of the war." Op den Velde reports on the diverse problems and specific family (psycho)dynamics of children of war-sailors and civilian Resistance veterans, while Lindt describes the recently-begun process of integration from their outcast status for the children of collaborators. Aarts discusses clinical and empirical findings of intergenerational effects in families of WWII survivors from the Dutch East Indies.

Part III contains two chapters describing the effects of genocide and migration on survivors, their cultures, and their families: Kupelian and colleagues studied the impact of Turkish persecution and genocide of the Armenians on their ethnic identity, psychopathology, and meaning in the second and third generations; Kinzie et al. describe effects of the Cambodian genocide on its survivors, their families, their parenting abilities, and their children.

Part IV includes three chapters addressing aspects of intergenerational transmission of the effects of the Vietnam War. Empirically comparing Vietnam veterans whose fathers served in combat with those who did not, Rosenheck and Fontana concluded that intergenerational effects of trauma emerge when the second generation itself has PTSD, and are more related to intergenerational processes during the homecoming period than to differences in pre-military vulnerability. Hunter-King's survey of children of service personnel missing in action indicates the mother's critical role in determining their coping, and the preventive value of adequate support to the families. Ancharoff and collaborators examine several mechanisms of transmission, interventions, and clinical implications.

Part V includes three chapters examining intergenerational effects revealed after the fall of communism, central to which are issues of submerged ethnic identity. Klain traces, from psychoanalytic and group analytic perspectives, current inter-ethnic conflicts in the former Yugoslavia to historically remote, transgenerationally transmitted affects and memories of wartime events by families, communities, and nations, and makes therapeutic recommendations. Rosenthal and Volter sociologically compare transmission in (three-generation) Jewish and non-Jewish German and Israeli family constellations (victims, perpetrators, Nazi followers), and in Germany after unification. Erős and collaborators describe transformation of Jewish identity in Hun-

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gary as a function of intergenerational responses to social and political changes.

Part VI contains five chapters that address multigenerational transmission of trauma in indigenous peoples in their own lands and as slaves taken from their lands. Three chapters demonstrate the unsurprisingly similar continuing effects of colonialism. Raphael and colleagues review and analyze the pervasive ongoing transgenerational effects of dispossession, deprivation, and discrimination on children of Australian aboriginal peoples, in particular the systematic removal and subsequent abuse of these "Stolen Generations." Duran et al. propose "historical trauma" and post-colonial paradigms for understanding and healing the American Indian "soul wound," and Gagné, a sociologist, outlines intergenerational effects of colonialism and dependency in (Canadian) First Nations Citizens. Reviewing the sources of ethnic conflicts, Odejide and collaborators suggest that their recurrence (in Nigeria) reflects intergenerational effects of the civil war. Cross differentiates adjustment patterns linked to slavery from aspects of American black psychology stemming from contemporary racism and economic neglect—the legacy of slavery for American whites.

Part VII consists of six chapters that describe the multigenerational effects of repressive regimes. Four chapters emphasize the significance of whether societies and families coped with the legacy of the repression through concealment or openness. Baker and Gippenreitner studied grandchildren of Stalin's purge victims utilizing Bowen Family System Theory; Becker and Diaz and Edelman et al., writing of the post-dictatorship years in, respectively, Chile and Argentina, discuss the continuing trauma generated not only by uncertainty regarding the fate of loved ones, but also by the unfulfilled promise of post-dictatorial regimes, which has given rise to impunity as a new traumatic factor. Based on data on the impact of family trauma on children from contrasting cultures (Southeast Asian and Central American), Rousseau and Drapeau discuss the influence of the child's culture of origin and stage of development on the transmission of trauma. Simpson, drawing from work with South African apartheid-era victims and perpetrators, explores the continuing effects of unresolved conflicts on individuals, families, communities, and nations. Ghadirian reviews the roots of persecution of Baha'is, and reports strengthened beliefs and capacity for forgiveness in children of Iranian Baha'i martyrs.

Part VIII includes three chapters that address intergenerational aspects of crime and domestic violence. Buchanan systematically reviews the multidisciplinary worldwide literature on intergenerational child maltreatment ("cycle of abuse") and a corresponding body of recommendations, and Simons and Johnson examine competing explanations and related treatment implications for the intergenerational transmission of domestic violence. From two clinical studies, Nader concludes that children whose parent(s) were previously traumatized may be at increased risk both for traumatic exposure and for elevated symptom levels following a traumatic event.

Part IX contains two chapters addressing multigenerational effects of infectious and life-threatening diseases. Draimin and collaborators underline the disruptive and distorting effects of AIDS on the normal sequence of generations. Wellisch and Hoffman describe psychological and treatment implications for daughters of mothers with breast cancer confronting their mother's (potentially terminal) illness and their own risk of contracting it.

Part X consists of three chapters depicting the emerging biology of intergenerational trauma. Suomi and Levine examine psychobiological processes involved in the transmission of behavioral and physiological sequelae based on data from prospective animal studies, including primates; Yehuda et al. demonstrate that offspring of Holocaust survivors are more vulnerable than controls to developing PTSD, and show neuroendocrine alterations similar to those in survivors with PTSD. Krystal et al. review the initial clinical evidence of genetic contributions to PTSD and recommend future research and related treatment directions.

Part XI is the editor's conclusion. She notes striking similarities as well as enriching, instructive differences in the diversity, summarizes emerging themes within an integrative framework, and systematically maps them according to multiple perspectives, e.g., clinical, theoretical, empirical, and policy, with related recommendations for future work. An important focus is the synthesis of the emerging understandings of the nature of mechanisms of transmission.

This book is a record of humanity's unremitting shame. Nevertheless, the reader will find hope in the courage and dignity chronicled in these chapters and in the genuine commitment of so many scholars to accumulate and apply knowledge to make the world a better place for our generation, and for generations to come.

Danieli, Y. (Ed.). (in press). *International handbook of multigenerational legacies of trauma*. New York: Plenum.

CHAPTER ABSTRACTS

Prepared by the Authors

Part I: The Nazi Holocaust

AUERHAHN, N.C. & LAUB, D. Intergenerational memory of the Holocaust. Central to the intergenerational response to trauma are issues of knowing and forgetting. This chapter focuses on Holocaust survivors' and their children's attempts to know the Holocaust, as well as defenses against such knowledge, exploring the limits of knowing trauma, modes of intergenerational transmission, and implications for healing. It delineates, using case examples of survivors, their children, and children of Nazis, ten forms of knowing trauma that include: not knowing, screen memories, fugue states, fragments, transference phenomena, overpowering narratives, life themes, witnessed narratives, metaphor, and action knowledge.

FELSEN, I. Transgenerational transmission of effects of the Holocaust: The North American research perspective. Clinical studies report special characteristics of offspring of Holocaust survivors (HOF), and particular problems in the relationships between them and their parents. However, empirical studies have rendered a much less consistent view. This chapter reviews empirical studies of North American non-clinical samples of HOF,

including published articles and over thirty doctoral dissertations. While HOF do not, as a group, demonstrate psychopathology, many findings suggest they share a psychological profile that includes lesser differentiation from their parents, lesser feelings of autonomy, elevated anxiety, guilt and depression, and more difficulties regulating aggression. A conceptual framework is proposed that organizes and unifies the diverse empirical observations regarding cognitive-affective, interpersonal, and defensive styles among HOF, and offers explanations for the discrepancies between clinical and empirical reports.

SOLOMON, Z. **Transgenerational effects of the Holocaust: The Israeli research perspective.** Offspring of Holocaust survivors, known as "second generation," have been repeatedly described as being deeply affected by their parents' traumatic experiences. This chapter investigates the effects of the Holocaust experience on survivors' offspring by reviewing and analyzing all published empirical studies carried out in Israel up to 1995. More specifically, the well-being of the second generation is examined via several prisms: world schemata, intrapsychic characteristics (e.g., anxiety, depression, guilt, somatization), family relationships, adjustment, and vulnerability to others.

HARDTMANN, G. **Children of the Nazis: A psychodynamic perspective.** The investigation is based, first, on observations since 1976 of members of the second and third post-World War II German generation in psychoanalytic treatment; second, counseling a self-help group of children of Nazi functionaries 1988/89; third, interviewing students of the third generation in East and West Berlin 1988/89; and, fourth, leading social training courses with right-wing radical delinquent youngsters in Berlin since 1990. The different groups showed special family characteristics. The children of Nazis often had been the objects of projection and projective identification of their parents; having grown up in a quasi-psychotic world, they developed fragmentary and distorted ego boundaries without a stable sense of reality.

BAR-ON, D., OSTROVSKY, T., & FROMER, D. **"Who am I in relation to my past, in relation to the other?"** German and Israeli students confront the Holocaust and each other. Young Germans and Israelis still struggle with their personal and collective identities in light of the Holocaust. This is an account of a joint seminar of Israeli and German students who separately studied the after-effects of the Holocaust and then encountered each other twice during the seminar. We describe the process of the Israeli group: first, their dialogue with their own personal and family legacy, then the dialogue with peer members of their group, and finally, initiating a dialogue with the "relevant other" (German students). This group process can be applied to other settings in which young members of communities in conflict and trauma struggle with that legacy and their own present identities.

Part II: World War II

BERNSTEIN, M.M. **Conflicts in adjustments: World War II prisoners of war and their families.** The purpose of this study was to assess the problems of readjustment of World War II ex-POWs, and examine various methods of regaining self-confidence. Questionnaires were distributed to over 150 WW II ex-prisoners in order to assess a potentially high-risk group as they entered retirement. The group selected did not seek out counseling any time prior to retirement and are now having increasing problems adjusting, citing areas related to their military experiences. Breakdowns in family communication systems, as well as patterns of social withdrawal, have been identified and blamed for the long hours of work as a means of coping with unresolved guilt feelings around the issue of being captured.

NAGATA, D.K. **Intergenerational effects of the Japanese American Internment.** This chapter describes research exploring the impact of the World War II Japanese-American internment upon the third generation (Sansei) children of former internees. Data from a national survey and in-depth interviews highlight important intergenerational effects. Results indicated that many of the Sansei generation continue to feel the significance of their parents' experiences in multiple ways, including, among others, family communication patterns, issues related to sense of identity, the accelerated loss of the Japanese language and culture, and the Sanseis' level of confidence in their rights in this country.

TATARA, M. **The second generation of Hibakusha, Atomic bomb survivors: A psychologist's view.** This chapter describes the traumatic consequences suffered by survivors of the atomic bomb (Hibakusha) and their offspring (Hibakusha Nisei). Physiological, political, socioeconomic, cultural, and social factors affecting the nature of these consequences are discussed. Taken together, such factors illustrate the importance of examining the psychological consequences of the atomic bomb at the individual level, as well as within broader contextual levels.

OP DEN VELDE, W. **Children of Dutch war-sailors and civilian Resistance veterans.** The main literature on the "second generation" is based on clinical encounters with children of Holocaust survivors. In The Netherlands, clinicians have observed similar problems in offspring of war-sailors and participants in the civilian Resistance. The problems of these children are diverse and do not constitute a specific diagnostic category. We have, however, observed specific family interactions such as reversal of the parent-child roles, a "family secret," and separation and identification problems. The latter problems mainly became of importance during the Oedipal phase.

LINDT, M.W.J. **Children of collaborators: From isolation to ward integration.** This chapter describes the history and the current situation of children of collaborators in the Netherlands. It first describes the history and consequences of isolation of these children in Dutch society; it then explores the recently-begun process of integration into society. Isolation appears to be twofold: within one's family and, in a broader sense, within society. After a difficult past, the taboo on their background is an outstanding characteristic of their situation, resulting in the feeling of having no right to be there. Their integration is being sustained by an interaction between outside help and self-help groups. The process of moving toward a realization of their right to exist and belong, and to give meaning to their fate, proves to be complex.

AARTS, P.G.H. **Intergenerational effects in families of WW II survivors from the Dutch East Indies: Aftermath of another Dutch war.** During World War II, many Dutch civilians and military suffered from the Japanese oppression in the Dutch East Indies. After the war, most Dutch survivors and their Indo-European descendants moved to the Netherlands. Until recently, little or no attention was paid to their traumatic experiences. This chapter describes the fate of these migrated families, paying special attention to the impact of not-worked-through experiences on the development of postwar offspring, utilizing clinical vignettes and a case presentation.

Part III: Genocide

KUPELIAN, D., KALAYJIAN, A.S., & KASSABIAN, A. **The Turkish genocide of the Armenians: Continuing effects on survivors and their families eight decades after massive trauma.** Two research studies and two clinical cases examine the effects on second- and third-generation Armenians in the diaspora of Turkish persecution culminating in the 1915 genocide. Unexpectedly

higher psychopathology scores were found in an older cohort of the third generation. Research on family structures suggests that adaptation to centuries of persecution has incorporated oppositional pressure into the formation of the individual's ethnic identity. The ongoing Turkish denial and campaign of historical disinformation about the 1915-1923 genocide is regarded as a psychological continuation of the historic persecution.

KINZIE, J.D., BOEHNLEIN, J., & SACK, W.H. **The effects of massive trauma on Cambodian parents and children.** Since the mass destruction of Cambodia and its people from 1975 to 1979, much has been learned about the effects on the survivors. The adults have a high rate of PTSD and depression. The latter seems to diminish over time. Those who were children during the Pol Pot era have lower rates of PTSD and depression; however, the rates greatly increase when one or especially both parents have PTSD. Systematic information on the effects on children of survivors is not yet available, but, as a case example illustrates, the problems among parents greatly affect their parenting ability. These problems, including irritability, avoidance behavior, physical abuse and divorce, can lead to academic difficulties, a sense of helplessness about the future, and clinical depression. The forecast for many survivors' children seems cloudy at best.

Part IV: The Vietnam War

ROSENHECK, R. & FONTANA, A. **Warrior fathers and warrior sons: Intergenerational aspects of trauma.** This chapter considers whether Vietnam veterans whose fathers served in combat have an increased risk of PTSD and other postwar adjustment problems when compared with other Vietnam veterans. Samples are veterans who participated in the National Vietnam Veterans Readjustment Study (NVVRS) and veterans seeking treatment for PTSD from the Department of Veterans Affairs. In the total NVVRS sample there were no differences between these two groups. However, within the subgroup of veterans who met criteria for PTSD and in the VA sample, those whose fathers had been exposed to combat had more severe problems on several measures. We conclude that intergenerational effects of trauma emerge when the second generation itself has PTSD, and show that these transgenerational effects are related to intergenerational processes during the homecoming period rather than to differences in pre-military experience.

HUNTER-KING, E.J. **Children of military personnel missing in action in Southeast Asia.** This chapter reviewed the research carried out over the past 25 years on the long-term effects of prolonged, ambiguous grieving in children of American military personnel declared missing in action (MIA) during the Vietnam era. It also examined the possibility of the transmission of these effects to future generations. Research indicates that the response of the wives of MIAs is the key variable in predicting both positive and negative effects on their children. The conclusion was that adequate support of families who are coping with the MIA experiences can play a preventive role in the transmission of long-term negative intergenerational effects.

ANCHAROFF, M.R., MUNROE, J.F., & FISHER, L. **The legacy of combat trauma: Clinical implications of intergenerational transmission.** This chapter examines the mechanisms and clinical implications of intergenerational transmission of trauma in Vietnam combat veterans. It reviews, from a clinical perspective, the salient features of the literature on transmission and presents a conceptual framework. It identifies several mechanisms of transmission, including silence, overdisclosure, identification, and reenactment. Case material illustrates both the content and process of the transmission, and associated issues are addressed concern-

ing adaptive or non-adaptive transmission, the relationship of primary and secondary trauma, and the mediating circumstances in which transmission occurs. Finally, the chapter discusses when and how clinical interventions should occur.

Part V: Intergenerational Effects Revealed After the Fall of Communism

KLAIN, E. **Intergenerational aspects of the conflict in former Yugoslavia.** This chapter concluded that one of the reasons for the rapid and effective inter-ethnic destruction during the recent hostilities is the historical memory of victims and perpetrators dating from and before World War II. Intergenerational transmission of emotions, especially revenge and hate, had begun centuries ago in Iliric tribes within patriarchal families. In addition to the family, the superego—particularly well known from old popular poetry and literature—acts as a mediator of emotional transmission. The Serbian Orthodox Church stimulated the recollection of crimes committed against the Serbs. Myths, too, have proven convenient for transmission of negative emotions from generation to generation. In addition to treating the numerous psycho-traumatized victims, it is necessary to try to bring people closer who were on opposite sides of this war. Special attention should be paid to children. Group analysis could help in this difficult and long-lasting task.

ROSENTHAL, G. & VOLTER, B. **Three generations within Jewish and non-Jewish German families after the unification of Germany.** How do three generations of families live today with the family and the collective past during the Nazi period? We compare different family constellations based on whether the first generation can be categorized as victims, perpetrators, or Nazi-followers. We also discuss how biographically different family histories after 1945 in Israel and in West and East Germany affect the process of intergenerational transmission. Using a case study, we elaborate the repair strategy of "Antifascism as a Substitute Mourning" in Jewish families in East Germany and show how the family and public dialogues correspond.

ERŐS, F., VAJDA, J., & KOVÁCS, E. **Intergenerational responses to social and political changes: Transformation of Jewish identity in Hungary.** The authors present an overview of the problem of Jewish identity after WW II in Hungary. They show that during the Communist period Hungarian Jews experienced an extremely high social and even administrative pressure to give up the remnants of their Jewishness, at least publicly, and to be silent about their suffering after the Shoah. It was only a minority that successfully resisted this pressure and was able to continue in some way Jewish life in a country dominated by a universalistic ideology. The consequence of this strategy was the formation of a secondary, negative Jewish identity, based on the experience and memory of direct persecutions or—in the case of younger generations—on the unconscious transmission of the collective and individual trauma of the Holocaust. Since the political turn in 1989/90, young Hungarian Jews are now attempting to construct a positive Jewish identity in their search to find their place in a multicultural society.

Part VI: Indigenous Peoples

RAPHAEL, B., SWAN, P., & MARTINEK, N. **Intergenerational aspects of trauma for Australian Aboriginal people.** Indigenous Australian people have suffered multiple losses and traumatization from the time of colonization. These included being driven from home and land, having their families and tribal communities broken up, and having separation from their children forced on them. Ongoing discrimination and racism, deprivation, and premature mortality have added to these traumatic losses. Subse-

quent generations have been affected by ongoing issues, but also by the transmission of chronic traumatization syndromes, impaired parenting, substance abuse, violence, and family breakdown. Programs of healing, culturally appropriate therapies, support for families, and restoration of traditional skills and values attempt to address these issues, as does a national program of reconciliation.

DURAN, E., DURAN, B., BRAVEHEART-JORDAN, M., & YELLOWHORSE-DAVIS, S. **Healing the American Indian soul wound.** Indigenous peoples of Turtle Island have gone through one of the worst holocaust experiences in the history of humankind. Physical, emotional, and spiritual genocidal actions have left trauma in the native community that continues to have specific symptoms in the present. "Historical trauma" is offered as a paradigm of understanding the problems that have plagued the American Indian community for generations. The authors propose strategies that are being used to ameliorate the effects of the trauma suffered by generations in the past and in the present.

GAGNÉ, M-A. **The role of dependency and colonialism in generating trauma in First Nations Citizens: The James Bay Cree.** This chapter examines the intergenerational trauma experienced by many First Nations Citizens. A theoretical framework, from a sociological perspective, explains how colonialism and dependency can lead to PTSD. The case of the James Bay Cree illustrates how traumatic events may lead to PTSD and intergenerational trauma. The hypothesis states that colonization led to economic and social dependency, which fostered more tangible traumatic events, such as cultural genocide, alcoholism, substance abuse, cultural bereavement, child abuse, family violence, and accidental deaths. Long-range effects of these traumatic events can propagate through several generations.

ODEJIDE, A.O., SANDA, A.O., & ODEJIDE, A.I. **Intergenerational aspects of ethnic conflict in Africa: The Nigerian experience.** This chapter examines theories of the sources of ethnic conflicts and their long-term consequences in Nigeria. Scholars attribute the conflicts to sociocultural differences and economic or political competition. These are often transformed into fierce political contests resulting in secession or inter-ethnic warfare, as was the case in Nigeria from 1966 to 1970. The intergenerational effects of the civil war on individuals and communities are explored through analyses of Nigerian fictional, biographical, historical, and journalistic accounts. Evidence of the intergenerational effects of the civil war can be seen in recurring ethnic conflicts and hostilities, ethnic stereotypes, identity crises, and a declining sense of national identity.

CROSS, W.E. **Black psychological functioning and the legacy of slavery.** Blacks exited 400 years of slavery with a variety of personality and cultural patterns, some negative and self-defeating, and others positive and functional. Since 1960, this legacy of strength and effective coping has met its match in a rising tide of black nihilism that stems from protracted unemployment. The current chapter differentiates the complex adjustment patterns linked to slavery from aspects of black psychology that are the product of contemporary racism and economic neglect.

Part VII: Repressive Regimes

BAKER, K.G. & GIPPENREITNER, J.B. **Stalin's purge and its impact on Russian families.** During the mid-1930s in the Soviet Union, Stalin initiated a vast "purge" of citizens, who were imprisoned, tortured, murdered, or sent to slave labor camps. Families of the victims were socially ostracized; they were denied access to education, employment and housing, and found themselves vulnerable to arrest. In this study, 50 adult grandchildren of purge

victims were interviewed to determine how their families had been affected by the traumatic loss of grandparents. Findings confirmed the hypothesis that families cutting off connection with the lost grandparents would experience lower levels of functioning in the grandchild generation than families maintaining connection through letters, stories, and other memorabilia.

BECKER, D. & DIAZ, M. **The social process and the transgenerational transmission of trauma in Chile.** Based on therapeutic work with victims of political persecution at the Latin American Institute for Mental Health and Human Rights in Chile, this chapter discusses the relationship between the social process and the intrafamily dynamics in the transgenerational construction and reconstruction of the traumatic process. Keilson's concept of sequential traumatization is explained and applied to the Chilean situation. Winnicott's Theory of True and False Self is used to highlight the situation of the children of the persecuted. A case example is presented and therapeutic issues are discussed.

EDELMAN, L., KORDON, D., & LAGOS, M. **Transmission of trauma: The Argentine case.** This chapter describes the conditions of terror in Argentina during the last military dictatorship (1976-1983), particularly the system of abduction and missing-detainees. Within this framework, and the impunity which later became legitimized, children were affected in different ways. Many born in captivity or abducted while they were still babies were given in adoption to families of repressors, and frequently their real identity was not revealed. Other children suffered trauma in different forms. This is a multigenerational effect whose long-term effects are evidenced 20 years after the beginning of the dictatorship. Although every family and each child has processed this situation in their own particular manner, problems of identity are a common denominator.

ROUSSEAU, C. & DRAPEAU, A. **The impact of culture on the transmission of trauma: Refugees' stories and silence embodied in their children's lives.** The relations among family trauma, emotional disorder in the children, and mediating variables such as parental depression and family conflict were studied in 156 school-age children from Southeast Asia and Central America, and in 158 young adolescents from the same regions. Quantitative and ethnographic approaches were used. Results suggest that culture influences the way in which the impact of trauma is mediated, both through family variables and through implicit and explicit familial discourse around trauma. The developmental stage of the child also appears to interact with the different modes of familial transmission of trauma.

SIMPSON, M.A. **The second bullet: Transgenerational impacts of the trauma of conflict within a South African and world context.** This chapter, based on work with South African perpetrators, as well as victims and their children, addresses not only the intergenerational cycles of violence which are typically described in myth and legend, but also explores the neglected themes of the abiding effects of unresolved conflict on families, communities, and nations, the effects of child trauma on parents, the role of children as aggressors and perpetrators, the effects of unresolved trauma in fomenting terrorism, the myth of the "lost generation," and the required amnesia of political correctness.

GHADIRIAN, A-M. **Intergenerational responses in the persecution of the Baha'is of Iran.** The roots of persecution are the prejudices that have plagued humanity throughout history. While oppression and suffering continue, humanity is awakening to the spiritual reality of adversities and to their effects on psychological and spiritual development. What are the spiritual meanings of suffering? Why do some individuals rise with resilience when

facing extreme persecution? What role does faith play, and how do psychological and spiritual reactions to crises and persecutions compare? The author presents results of a study on the reactions of family members of recent Iranian Baha'i martyrs.

Part VIII: Domestic Violence and Crime

BUCHANAN, A. **Intergenerational child maltreatment.** This chapter examines the current world literature on intergenerational child maltreatment ("cycle of abuse"). Studies emanating from psychiatry, psychology, anthropology, sociology, social policy, social work, and related disciplines are discussed. The central thesis is that there are four cycles, rather than one, which operate within and without the family: sociopolitical and cultural (extrafamilial), and psychological and biological (intrafamilial). If patterns of intergenerational child maltreatment are to be broken, interventions need to be focused at the separate mechanisms which operate within each cycle.

SIMONS, R.L. & JOHNSON, C. **An examination of competing explanations for the intergenerational transmission of domestic violence.** Past research indicates that children who witness violence between their parents or who are subjected to severe physical discipline often grow up to be violent toward their spouse and offspring. These associations are usually attributed to modeling or the learning of attitudes that legitimate hitting family members. Using data from three generations, we found very little support for these perspectives. Rather, our analyses showed that the relationship between childhood exposure to domestic violence and the perpetration of such behavior as an adult is mediated by the extent to which the person displays an antisocial orientation. This pattern of findings is consistent with criminological theories that view criminal and deviant behavior of all sorts as rooted in a general antisocial orientation acquired in childhood as a result of ineffective parenting.

NADER, K.O. **Violence: Effects of parent's previous trauma on currently traumatized children.** Two clinical studies of children exposed to a violent event strongly suggest that children whose parent(s) were previously traumatized may be more likely to be subsequently exposed to a traumatic event and are at risk of experiencing increased symptoms following a traumatic event. Loving and other verbal prescriptions, learned behaviors, learned ideas, genetic or biochemical factors, and parenting styles may contribute to this phenomenon. The children in these studies who experienced PTSD were traumatized by an actual violent event. Evidence suggests that children are not traumatized by their parent's traumatic exposure, but instead experience an increased vulnerability. Interventions, following traumatic exposure, to address symptoms and special issues with children whose parents have been previously traumatized are recommended.

Part IX: Infectious and Life-Threatening Diseases

DRAIMIN, B., LEVINE, C., & MCKELVY, L. **AIDS and its traumatic effects on families.** As a result of the global epidemic of HIV/AIDS, individual, family, and community roles and responsibilities are being redefined. The generation of young adults has been hardest hit, adding extra burdens to the older generation and foreclosing options for the young. In the United States, the majority of HIV-infected parents have come from poor African-American and Latino communities. HIV/AIDS is different from most other diseases that claim parents' lives, because of the social stigma, the link to drug use, the usual absence of a surviving caregiving parent, the transmissibility of HIV to unborn children, and the number of other losses in the families. Nevertheless, there is a reservoir of spiritual strength and resiliency in families. Model family-centered programs have been developed in the U.S. and

elsewhere. Different strategies should be shared across national boundaries to meet the basically similar human needs of generations struggling with loss.

WELLISCH, D.K. & HOFFMAN, A. **Daughters of breast cancer patients: Legacies and traumas.** With linkage studies and sequencing of Breast Cancer 1 & 2 genes, risk ratios for daughters of pre- and post-menopausal mothers with breast cancer are calculated up to lifetime 85%. Psychological implications for daughters have received less attention than the biomedical and genetic. This chapter presents the result of a community-based study of 60 daughters, and a clinic-based three-year program with 300, describing the impact on the family, and a preliminary profile of the daughter as "high risk" psychologically. Trauma resolution requires a program that may extend for a lifetime medical surveillance and specialized psychosocial support.

Part X: The Emerging Biology of Intergenerational Trauma

SUOMI, S.J. & LEVINE, S. **Psychobiology of intergenerational effects of trauma: Evidence from animal studies.** This chapter examines psychobiological processes involved in the transmission of behavioral and physiological sequelae of trauma across generations. Most of the relevant data come from prospective longitudinal studies of animals, especially nonhuman primates. Findings to date suggest at least three means by which an individual's behavioral propensities and physiological functioning can be affected by trauma experienced by one or both parents earlier in life: the first is via observational learning; the second encompasses specific parental behaviors; and the third involves prenatal mechanisms. These three modes of transmission are unlikely to be mutually exclusive; rather, their effects are probably cumulative for most individuals.

YEHUDA, R., SCHMEIDLER, J., ELKIN, A., SIEVER, L., BINDER-BRYNES, K., WAINBERG, M., AFEROT, D., LEHMAN, A., GUO, L.S., & YANG, R.K. **Phenomenology and biology of the intergenerational response to trauma.** Our studies have directly compared psychiatric symptoms and other PTSD phenomenology in children of Holocaust survivors and their parents, and have explored the prevalence of trauma, PTSD, and neuroendocrinologic status in a mixed sample of children of survivors. The results of these studies demonstrate that offspring of Holocaust survivors are far more likely to develop PTSD and related symptoms when compared to a demographically-matched comparison group. Further, children of survivors appear to have a similar neuroendocrine status to Holocaust survivors with PTSD. The data suggest that the previously described "intergenerational syndrome" may have a phenomenology and neurobiology similar to that of PTSD.

KRYSTAL, J.H., NAGY, L.M., RASMUSSEN, A., MORGAN, A., COTTRILL, C., SOUTHWICK, S.M., & CHARNEY, D.S. **Initial clinical evidence of genetic contributions to Posttraumatic Stress Disorder.** Genetic factors modulating the response to extreme stress have become the focus of a small, but growing, body of research. Family history studies suggest that the rates of familial psychopathology are increased in individuals who develop PTSD, relative to other non-symptomatic individuals exposed to comparable stress. However, the genetic relationship between PTSD and other disorders is unclear. Twin studies indicate that genetic constitution influences exposure to extreme stress and subsequent development of PTSD. Future family studies and molecular genetic studies will further characterize the nature of genetic contributions to human vulnerability and resilience to the impact of extreme stress. The rapid development of relevant powerful technologies creates the hope that they may ultimately enhance the prevention and treatment of PTSD.

RESEARCH AT THE NATIONAL CENTER FOR PTSD: CLINICAL NEUROSCIENCES DIVISION

Steven Southwick, MD

The Clinical Neuroscience Division of the National Center for PTSD under the direction of Dr. Dennis Charney actively has been investigating the biological pathophysiology of psychological trauma since 1989. Studies have ranged from molecular and cellular neurobiology to brain imaging and psychopharmacology.

In the Laboratory of Brain Imaging, headed by Dr. Robert Innis, Dr. Douglas Bremner et al. recently have reported decreased hippocampal volume and associated deficits in short-term memory among combat veterans with PTSD and among adult male and female survivors of child abuse. PET scan studies have shown differing patterns of cerebral metabolism among veterans with PTSD compared to controls in response to provocation with reminders of past trauma and with yohimbine hydrochloride.

The Laboratory of Neuroendocrinology, headed by Dr. John Mason, has characterized chronic alterations in stress hormones among combat veterans with PTSD. Studies have primarily involved catecholamines, cortisol, and thyroid hormones. Ongoing studies with Dr. Sheila Wang are focused on chronic elevation of thyroid hormones, especially T3, and longitudinal fluctuations of multiple stress hormones. Drs. Ann Rasmusson and Deborah Lipshitz are investigating hypothalamic pituitary adrenal function in traumatized adolescents and adult women.

The Laboratory of Clinical Psychopharmacology, directed by Dr. Steven Southwick, continues to probe stress-related neurobiologic systems through the use of challenge strategies. Two possible neurobiologic subgroups have been identified: one with a noradrenergic system that is sensitive to yohimbine and the other with a serotonergic system that hyper-responds to m-CPP. Dr. Theresa Bergherr is investigating glutaminergic function through the use of ketamine, and Dr. Andrew Meisler is studying the effects of trauma-related cues on alcohol craving. Drs. C.A. Morgan, Christian Grillon, and Michael Davis are rigorously pursuing the relationship between neuronal activity and fear/anxiety states in their innovative work with the acoustic startle response. Psychopharmacological studies include double-blind trials with clonidine for combat veterans and traumatized children with PTSD, and a recent multi-center trial headed by Dr. Linda Nagy using nefazodone for the treatment of combat veterans and civilians with PTSD.

The Laboratory of Psychiatric Genetics, headed by Dr. Joel Gelernter, continues to study dopamine candidate genes. Linkage disequilibrium between an allele at the D4 dopamine receptor locus and Tourette's syndrome was recently reported by the lab and represents the first distinct linkage of any gene with this disorder. With PTSD patients, information regarding allele frequency from several genetic loci is being collected. Further, in collaboration with the Laboratory of Brain Imaging, imaging correlates are being related to various genotype findings.

In the Laboratory of Molecular Neurobiology, Drs. R. Duman, A. Deutch, B. Moghaddam, A. Rasmusson, and

colleagues continue to focus on the deleterious effects of stress on nerve cells. For example, chronic stress can cause atrophy or death of stress-sensitive hippocampal neurons through sustained elevation of adrenal-glucocorticoids and decreased levels of brain-derived neurotrophic factor (BDNF). The role of prefrontal cortical dopamine in response to stress also has been an active area of investigation, as has the identification of mechanisms through which chronic antidepressant treatments regulate gene expression. It is believed that manipulation of these mechanisms might reverse cell death and atrophy that have been caused by severe stress.

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PILOTS UPDATE

Sometimes predictions are superseded by events. In our last column, we said that a graphical interface to the PILOTS database was expected to become available for public use sometime this year. In fact, this interface to the PILOTS database is now up and running.

Dartmouth College, which provides the world with Internet access to the PILOTS database, now maintains two systems to support interactive database searching. These are the Dartmouth College Library Online System (DCLOS), which offers the command-based textual interface familiar to those who have searched the PILOTS database in the past, and the Dartmouth College Information System (DCIS), a graphical approach to searching originally limited to on-campus use but now available to users of the World Wide Web.

Those who have used the Macintosh or Windows operating systems know that using a graphical interface permits the user to achieve desired actions by selecting from on-screen icons or menus, rather than requiring the precise typing of detailed commands. A well-designed graphical interface places fewer demands on the searcher's memory and typing skills, thus making the process of using the database less frustrating and more productive than is often the case with traditional textual interfaces.

However, there is a trade-off. The DCIS Web interface does not support the level of complexity in searching that is allowed in the DCLOS textual interface. Even the "expert mode" offered by DCIS is not as robust as is DCLOS. This should not pose a problem for most users of the PILOTS database. Any information need so complex as to require the advanced capabilities of the DCLOS command structure is probably complex enough to warrant the assistance of a librarian or other expert database searcher.

For most clinical and educational purposes, the DCIS Web interface offers a reliable, easy-to-use approach to searching the PILOTS database. The same principles of formulating a search strategy and interpreting its results that we have discussed in previous columns and in the

PILOTS Database User's Guide still apply. The "DCIS Help" option on the screen explains the details of using the new interface, and the National Center's Web site contains a substantial portion of the *User's Guide* arranged for convenient on-screen reading.

Users requiring a comprehensive search of the traumatic stress literature for research or legal purposes should consider obtaining expert assistance in using the DCLOS command-driven interface to the database, and should also seek expert advice on other information resources that might be relevant to their needs.

For direct access to the new DCIS Web interface to the PILOTS database, as well as access to the older DCLOS version, connect to our World Wide Web site at <http://www.dartmouth.edu/dms/ptsd/>

TRY US FIRST

As of the end of January, there are 11,177 papers indexed in the PILOTS database. We have been working on improving the timeliness of our coverage, and by concentrating on the rapid acquisition and indexing of papers from the leading journals in medicine, psychiatry, psychology, and social work we have been able to surpass the performance of other, larger databases. By special arrangement with the publishers of the *Journal of Traumatic Stress*, we are able to index each issue's contents in the PILOTS database even before many subscribers receive their copies in the mail.

We also have a policy of including in the PILOTS database all papers on PTSD that are indexed in MEDLINE, PsycINFO, and other major databases. We have been able to implement this policy with regard to English-language publications, although our coverage of material in other languages has lagged behind.

We are therefore in a position to suggest that PILOTS has become the first database to search for literature on traumatic stress. While users requiring absolutely complete retrieval of the PTSD literature will also want to search MEDLINE, PsycINFO, and other databases, it is fair to say that no search of the traumatic stress literature can be regarded as complete unless it includes a search of the PILOTS database. The new Web interface makes searching PILOTS easier than ever.

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