UNITED STATES DISTRICT COURT

NORTHERN DISTRICT OF CALIFORNIA

OAKLAND DIVISION

TODD ASHKER, DANNY TROXELL, GEORGE RUIZ, JEFFREY FRANKLIN, GEORGE FRANCO, GABRIEL REYES, RICHARD JOHNSON, PAUL REDD, LUIS ESQUIVEL, and RONNIE DEWBERRY, on their own behalf, and on behalf of a class of similarly situated prisoners,

Plaintiffs,

v.

EDMUND G. BROWN, JR., Governor of the State of California, MATTHEW CATE, Secretary, California Department of Corrections and Rehabilitation (CDCR); ANTHONY CHAUS, Chief, Office of Correctional Safety, CDCR; and G.D. LEWIS, Warden, Pelican Bay State Prison,

Defendants.

Case No. 4:09 CV 05796 CW

EXPERT REPORT OF CRAIG HANEY, Ph.D., J.D.

Honorable Claudia Wilken

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I. Expert Qualifications

1. I am a Distinguished Professor of Psychology at the University of California, Santa Cruz, where I also currently serve as the Director of the Legal Studies Program. My area of academic specialization is in what is generally termed "psychology and law," which is the application of psychological data and principles to legal issues. I teach graduate and undergraduate courses in social psychology, psychology and law, and research methods. I received a bachelor's degree in psychology from the University of Pennsylvania, an M.A. and Ph.D. in Psychology and a J.D. degree from Stanford University, and I have been the recipient of a number of scholarship, fellowship, and other academic awards.

2. I have published numerous scholarly articles and book chapters on topics in law and psychology, including encyclopedia and handbook chapters on the backgrounds and social histories of persons accused of violent crimes, the psychological effects of imprisonment, and the nature and consequences of solitary or "supermax"-type confinement. In addition to these scholarly articles and book chapters, I have published two sole-authored books: *Death by Design: Capital Punishment as a Social Psychological System* (Oxford University Press, 2005), and *Reforming Punishment: Psychological Limits to the Pains of Imprisonment* (American Psychological Association Books, 2006).

3. In the course of my academic work in psychology and law, I have lectured and given invited addresses throughout the country on the role of social and institutional histories in explaining criminal violence, the psychological effects of living and working in institutional settings (typically maximum security prisons), and the psychological consequences of solitary confinement. I have

given these lectures and addresses at various law schools, bar associations, university campuses, and numerous professional psychology organizations such as the American Psychological Association.

4. I also have served as a consultant to numerous governmental, law enforcement, and legal agencies and organizations, including the Palo Alto Police Department, various California Legislative Select Committees, the National Science Foundation, the American Association for the Advancement of Science, and the United States Department of Justice. For example, in the summer of 2000, I was invited to attend and participated in a White House Forum on the uses of science and technology to improve crime and prison policy, and in 2001 I participated in a conference jointly sponsored by the United States Department of Health and Human Services (DHHS) concerning government policies and programs that could better address the needs of formerly incarcerated persons as they were reintegrated into their communities. I continued to work with DHHS on the issue of how best to insure the successful reintegration of prisoners into the communities from which they have come. More recently, I consulted with the Department of Homeland Security on detention-related issues, and I served as both a consultant to and an expert witness before the United States Congress. I was appointed in 2012 as a member of a National Academy of Sciences committee analyzing the causes and consequences of high rates of incarceration in the United States, and I co-authored the NAS committee's report, published in book form as *The Growth of Incarceration in the United States: Exploring the Causes and Consequences*, released in April, 2014. A copy of my curriculum vitae is attached to this Expert Report as Exhibit 1.

5. My academic interest in the psychological effects of various prison conditions is long-standing and dates back to 1971, when I was still a graduate student. I was one of the principal researchers in what has come to be known as the "Stanford Prison Experiment," in which my colleagues Philip Zimbardo, Curtis Banks, and I randomly assigned normal, psychologically healthy college students to the roles of either "prisoner" or "guard" within a simulated prison environment that we had created in the basement of the Psychology Department at Stanford University. The study has since come to be regarded as a "classic" study in the field of social psychology, demonstrating the power of institutional settings to change and transform the people who enter them.[1]

6. Since then I have been studying the psychological effects of living and working in real (as opposed to simulated) institutional environments, including juvenile facilities, mainline adult prison and jail settings, and specialized correctional housing units (such as solitary and "supermax"-type confinement). In the course of that work, I have toured and inspected numerous maximum security state prisons and related facilities (in Alabama, Arkansas, Arizona, California, Florida, Georgia, Idaho, Louisiana, Massachusetts, Montana, New Jersey, New Mexico, Ohio, Oregon, Pennsylvania, Tennessee, Texas, Utah, and Washington), many maximum security federal prisons (including the Administrative Maximum or "ADX" facility in Florence, Colorado), as well as

[1] For example, see Craig Haney, Curtis Banks & Philip Zimbardo, *Interpersonal Dynamics in a Simulated Prison*, 1 International Journal of Criminology and Penology 69 (1973); Craig Haney & Philip Zimbardo, *The Socialization into Criminality: On Becoming a Prisoner and a Guard*, in Law, Justice, and the Individual in Society: Psychological and Legal Issues (J. Tapp and F. Levine, eds., 1977); and Craig Haney & Philip Zimbardo, *Persistent Dispositionalism in Interactionist Clothing: Fundamental Attribution Error in Explaining Prison Abuse*, Personality and Social Psychology Bulletin, 35, 807-814 (2009).

prisons in Canada, Cuba, England, Hungary, Mexico, and Russia. I also have conducted numerous interviews with correctional officials, guards, and prisoners to assess the impact of penal confinement, and statistically analyzed aggregate data from numerous correctional documents and official records to examine the effects of specific conditions of confinement on the quality of prison life and the ability of prisoners to adjust to them.[2]

7. I have been qualified and have testified as an expert in various federal courts, including United States District Courts in Arkansas, California, Georgia, Hawaii, New Mexico, Pennsylvania, South Carolina, Texas, and Washington, and in numerous state courts, including courts in Colorado, Florida, Montana, New Jersey, New Mexico, Ohio, Oregon, Tennessee, Utah, and Wyoming as well as, in California, the Superior Courts of Alameda, Calaveras, Kern, Los Angeles, Marin, Mariposa, Monterey, Orange, Sacramento, San Diego, San Francisco, San Mateo, Santa Clara, Santa Cruz, Shasta, Tulare, Ventura, and Yolo counties. My research, writing, and testimony have been cited by state courts, including the California Supreme Court, and by Federal District Courts,

[2] For example, Craig Haney & Philip Zimbardo, *The Socialization into Criminality: On Becoming a Prisoner and a Guard*, in Law, Justice, and the Individual in Society: Psychological and Legal Issues (pp. 198-223) (J. Tapp and F. Levine, eds., 1977); Craig Haney, *Infamous Punishment: The Psychological Effects of Isolation*, 8 National Prison Project Journal 3 (1993); Craig Haney, *Psychology and Prison Pain: Confronting the Coming Crisis in Eighth Amendment Law*, Psychology, Public Policy, and Law, 3, 499-588 (1997); Craig Haney, *The Consequences of Prison Life: Notes on the New Psychology of Prison Effects*, in D. Canter & R. Zukauskiene (Eds.), Psychology and Law: Bridging the Gap (pp. 143-165). Burlington, VT: Ashgate Publishing (2008); Craig Haney, *On Mitigation as Counter-Narrative: A Case Study of the Hidden Context of Prison Violence*, University of Missouri-Kansas City Law Review, 77, 911-946 (2009); Craig Haney, *Counting Casualties in the War on Prisoners*, 43 University of San Francisco Law Review 87-138 (2008); Craig Haney, *The Perversions of Prison: On the Origins of Hypermasculinity and Sexual Violence in Confinement*, American Criminal Law Review, 48, 121-141 (2011) [Reprinted in: S. Ferguson (Ed.), Readings in Race, Ethnicity, Gender and Class. Sage Publications (2012)]; and Craig Haney, *Prison Effects in the Age of Mass Imprisonment*, The Prison Journal, 92, 1-24 (2012).

Circuit Courts of Appeal, and the United States Supreme Court.[3] A statement of compensation and a list of the cases that I have testified in as an expert at trial or by deposition during the last four years is attached to this Expert Report as Exhibit 2.

II. Basis of Expert Opinion

8. I have been retained by counsel for the Plaintiffs in *Ashker et. al. v. Governor of California* to provide expert opinions on two inter-related topics: a) a summary of what is known about the negative psychological consequences of confinement in isolation or "supermax" prisons; and b) based on the case-specific documents that I have been provided and reviewed, and a series of interviews that I have conducted, the extent to which prisoners housed in the Pelican Bay Security Housing Unit (PBSHU) continue to be subjected to solitary-type confinement that may place them at a serious risk of psychological harm.

9. My opinions on these topics are based on a number of sources. In addition to my own direct experience interviewing and evaluating prisoners housed in solitary confinement, I reviewed the extensive published literature that addresses the psychological effects of solitary confinement. In addition, I have been provided with a set of documents that pertain to the use of solitary confinement at the Pelican Bay SHU. The documents that I reviewed include: the Class Action Complaint for Injunctive and Declaratory Relief in *Ashker v. Governor of California*; a 2012 Amnesty International report on conditions in California's SHUs entitled "The Edge of Endurance: Prison Conditions in California's Security Housing Units"; and the Declaration of Terry Kupers, M.D.,

[3] For example, see *Brown v. Plata*, 131 S.Ct. 1910 (2011).

M.S.P. in support of class certification.[4] I also reviewed the Central Files of almost all of the prisoners with whom I conducted confidential inteviews in conjunction with this case, including their prison medical and mental health documents.

10. In addition to the present Expert Report, on April 30, 2013, I filed a declaration in support in support of Plaintiffs' motion for class certification in conjunction with this case. In order to provide the Court with a comprehensive analysis and discussion of my expert opinions, I have incorporated portions of that earlier declaration into the present one.

11. As I mentioned in my earlier declaration, the PBSHU is a facility that I know well. I first toured and inspected this "supermax" prison in 1990, not long after it had opened. Many of the "pods" at the prison had not yet received their first prisoners and some of those that I toured were still empty. I returned to the prison many times in the early 1990s, as one of the experts who evaluated and testified about the impact of what was then considered "long-term" isolated confinement in *Madrid v. Gomez*.[5] In conjunction with my work on that case, I toured and inspected the facility a number of times and conducted numerous interviews with prisoners who were housed in the PBSHU to determine its psychological effects. In July, September, and December, 1992, I conducted approximately thirty (30) interviews with PBSHU prisoners to better understand

[4] I should note that although I reviewed Dr. Kupers' earlier declaration and, as I will point out later in this Expert Report, found his observations to be consistent with my own, his opinions have not influenced or affected my own. I have known of and respected Dr. Kupers' work for some time. However, I am adamant about reaching my own, independent conclusions, and believe that he functions in exactly the same way. I have not reviewed his Expert Report or any of the others filed in conjunction with this case.

[5] 889 F. Supp. 1146 (N.D. Cal. 1995).

their conditions of confinement and form preliminary opinions about how they were being affected by those conditions. Then, on two separate occasions (August 3-4, and August 30-September 1, 1993), I and a team of researchers that I assembled returned to the facility for several days to complete a systematic study that entailed in-depth assessments of a representative group of one hundred (100) randomly selected PBSHU prisoners. I also have returned to the prison on a number of occasions since *Madrid* was decided, both to tour and inspect conditions and to interview prisoners. In addition, because of my longstanding interest in the psychological effects of solitary confinement, my active participation in assessing the effects of the PBSHU, and my involvement in the *Madrid* lawsuit, I have remained apprised of many of the practices, policies, and conditions at the facility.

12. Recently, and directly in conjunction with the *Ashker* case, I have conducted additional sets of prisoner interviews and conducted an additional tour and inspection of the facility. Specifically, I traveled to the PBSHU on April 16-17, 2013, and conducted confidential in-person interviews with seven (7) prisoners who were both part of the original sample of randomly selected prisoners from my August-September, 1993 study and who were currently housed in the SHU facility. They were: Prisoner B, Prisoner GG, Prisoner D, Prisoner C, Prisoner E, Prisoner M, and Prisoner A.[6] Several of these men had been transferred to other CDCR prisons in the intervening 20-year period and

[6] In order to protect the confidentiality of the prisoners referred to in this Expert Report, I have identified them in the text with alphabetical designations only. The prisoners' names and numbers are contained in Exhibit 3, filed under seal.

were now back at the PBSHU, and several had *never* left since I interviewed them many years ago (Prisoner A, Prisoner B, Prisoner C, and Prisoner D).

13. In addition to the above interviews conducted in April, 2013, I traveled to PBSP on four additional occasions in conjunction with the *Ashker* case. Specifically, between January 17 and 21, 2014, I conducted a series of confidential in-person interviews with two different groups of class members (i.e., prisoners who had been housed continuously in the PBSHU for the last 10 years or more). The first group consisted of eight prisoners who were selected on a non-random basis by Plaintiffs' counsel.[7] The second group, which consisted of 16 prisoners, was randomly selected from a roster of prisoners provided by CDCR.[8] This latter group was part of a larger group of randomly selected prisoners, chosen in this way to ensure that a representative sample was included in my analysis. Thus, on December 8-11, 2014, I conducted a second set of confidential in-person interviews with 25 different randomly selected prisoners who were members of the Plaintiff class still housed at the PBSHU.[9] On December 15-18, 2014, I interviewed a group of 25 general population ("GP")

[7] When I conducted these interviews during January 17-21, 2014, I was not aware of which interviewees had been selected non-randomly and which by random selection.

[8] The random selections were accomplished through the use of a computerized random number generator, a roster of names provided by CDCR that listed all of the prisoners who had been gang validated more than ten years previously, the elimination of those who had not been in prison continuously for the ten previous years (based on the CDCR's inmate locator), and a subsequent questionnaire set to some of them to determine the length of time that they had spent in the PBSHU. The initial sample of 17 prisoners was randomly selected from this group who had been housed in the PBSHU continuously for the last 10 years or more. A total of 24 interviews were completed in the January, 2014 round of interviews; one prisoner from the random sample refused to be interviewed.

[9] Computer-generated random numbers were used to select interviewees from a roster of names provided by CDCR that listed all Plaintiff class members still housed at the PBSHU. No prisoner refused, so the entire sample of 25 randomly selected prisoners was interviewed in the December, 2014 round of interviews.

prisoners whom I selected from a list of prisoners who had been incarcerated in the CDCR continuously for a period of 10 years or more.[10]

14. Finally, on April 11, 2014, Dr. Terry Kupers and I toured and inspected the SHU housing units where *Ashker* class members are confined and other areas of the Pelican Bay State Prison where they might be taken (e.g., the Psychiatric Services Unit or "PSU" and the prison infirmary).

III. Summary of Expert Opinion

15. By way of summary, it is my expert opinion that being housed in solitary or isolated confinement—especially over a long period of time—can produce a number of negative psychological effects. It places prisoners at grave risk of psychological harm. I believe that these effects are now well understood and described in the scientific literature. There are numerous empirical studies that report "robust" findings—that is, the findings have been obtained in studies that were conducted by researchers and clinicians from diverse backgrounds and perspectives, were completed and published over a period of many decades, and

[10] The target sample of general population ("GP") interviewees consisted of prisoners who had been incarcerated in the CDCR for 10 or more years and who were currently housed in GP at the Pelican Bay State Prison. To obtain this sample, a group of 100 prisoners was randomly selected from a roster of 315 prisoners that was provided by CDCR, containing the names of all prisoners whose entrance date into the CDCR was on or before July 31, 2004 (10 years or more ago at the time the list was generated). Each of those prisoners was sent a letter and a form asking if they were willing to be interviewed by me, and also several other questions about their prison histories. A group of 41 prisoners who agreed to be interviewed returned their form in time to be screened and to meet the CDCR deadline to inform them of our list of interviewees. I screened their forms to ensure that 1) the prisoner had, in fact, been in the CDCR continuously for the last 10 years, and 2) they were not currently on the mental health caseload (because their status as either a CCCMS or EOP prisoner would disqualify them from placement in the PBSHU). Several prisoners were eliminated because they were either on the mental health caseload or because they had not been confined continuously in the CDCR for the last 10 years. A final sample of 25 interviewees and 5 "alternates" was randomly selected from the list of "eligible" prisoners (i.e., those who had been in CDCR continuously for 10 or more years and who were not currently on the CDCR mental health caseload). I determined on site, in the course of obtaining their institutional histories, that two interviewees did not meet the criteria (i.e., they had not been housed in the CDCR continuously over the last 10 years and they were replaced by two alternates. No one refused to be interviewed and, in all, 25 GP prisoners were, in fact, interviewed.

are empirically very consistent.[11] With remarkably few exceptions, virtually every one of these studies has documented the pain and suffering that isolated prisoners endure and the risk of psychological harm to which they are exposed.

16. In addition, the empirical conclusions are theoretically sound. That is, there are straightforward scientific explanations for the fact that long-term isolation—the absence of meaningful social contact and interaction with others—and the other severe deprivations that typically occur under conditions of isolated or solitary confinement have harmful psychological consequences. Social exclusion and isolation from others is known to produce adverse psychological effects in contexts other than prison; it makes perfect theoretical sense that this experience produces similar negative outcomes in correctional settings, where the isolation is so rigidly enforced, the social opprobrium that attaches to isolated prisoners can be extreme, and the other associated deprivations are so severe.

17. The scientific literature on isolation, as well as my own research and experience, indicate that "long-term" exposure to precisely the kinds of conditions and practices that—based on the extensive number of documents that I have reviewed and many prisoner interviews I now have conducted—clearly currently exist in the PBSHU and clearly place prisoners at grave risk of psychological harm. This is true whether or not those prisoners suffer from a pre-existing mental illness.

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[11] Craig Haney, *Mental Health Issues in Long-Term Solitary and "Supermax" Confinement*, Crime & Delinquency, 49, 124-156 (2003); Craig Haney, *The Social Psychology of Isolation: Why Solitary Confinement is Psychologically Harmful*, Prison Service Journal, 12 (January, 2009); and Craig Haney & Mona Lynch, *Regulating Prisons of the Future: The Psychological Consequences of Solitary and Supermax Confinement*, New York University Review of Law and Social Change 23, 477-570 (1997).

18. It should be noted that "long-term" or "prolonged" exposure to prison isolation is generally used in the literature to refer to durations of solitary confinement that are *much* briefer than the amounts of time that *Ashker* class members have been subjected to it. For example, the American Psychiatric Association (APA) defined "prolonged segregation" as segregation lasting for *four weeks* or longer (which the APA also said "should be avoided" for the seriously mentally ill).[12] Thus, *Ashker* class members have, as a group, been subjected to durations of isolated confinement that far exceed—by substantial orders of magnitude—the amounts typically reported in the literature, studied by researchers, and considered psychiatrically problematic.

19. I should note that the opinions I have reached in this case concerning the current use, nature, and effects of long-term isolated confinement in the PBSHU are no longer preliminary, as they were in my April 30, 2013 declaration. They are now based on an extensive amount of data, including the aforementioned interviews of samples of both long-term SHU (class members) and a comparison sample of GP prisoners, a recent tour of the PBSHU, and a substantial number of official, case-related documents. The conclusions that I reach in this Expert Report are now settled and I am confident in them.

IV. The Adverse Psychological Effects of Isolation

20. "Solitary confinement" and "isolated confinement" are terms of art in correctional practice and scholarship. For perhaps obvious reasons, total and absolute solitary confinement—literally *complete* isolation from any form of

[12] American Psychiatric Association, *Position Statement on Segregation of Prisoners with Mental Illness* (2012), *available at* http://www.psych.org/File%20Library/Learn/Archives/ps2012_PrisonerSegregation.pdf.

human contact—does not exist in prison and never has. Instead, the term is generally used to refer to conditions of extreme (but not total) isolation from others. I have defined it elsewhere, in a way that is entirely consistent with its use in the broader correctional literature, as:

> [S]egregation from the mainstream prisoner population in attached housing units or free-standing facilities where prisoners are involuntarily confined in their cells for upwards of 23 hours a day or more, given only extremely limited or no opportunities for direct and normal social contact with other persons (i.e., contact that is not mediated by bars, restraints, security glass or screens, and the like), and afforded extremely limited if any access to meaningful programming of any kind.[13]

21. This definition is similar to the one employed by the National Institute of Corrections (NIC), as cited by Chase Riveland in a standard reference work on solitary-type confinement that was sponsored and disseminated by the United States Department of Justice. Riveland noted that the NIC itself had defined solitary or "supermax" housing as occurring in a "freestanding facility, or a distinct unit within a freestanding facility, that provides for the management and secure control of inmates" under conditions characterized by "separation, restricted movement, and limited access to staff and other inmates."[14] More recently, the Department of Justice employed a similar definition, noting that "the terms 'isolation' or 'solitary confinement' mean the state of being confined to one's cell for approximately 22 hours per day or more, alone or with other

[13] Haney, *The Social Psychology of Isolation, supra* note 11, at footnote 1. Obviously, there is little or no difference between 22.5 hours of cell confinement, as practiced at Pelican Bay SHU, and the 23 hours referred to here.

[14] Chase Riveland, *Supermax Prisons: Overview and General Considerations. National Institute of Corrections*. Washington DC: United States Department of Justice (1999), at p. 3, *available at* http://static.nicic.gov/Library/014937.pdf.

prisoners, that limits contact with others… An isolation unit means a unit where all or most of those housed in the unit are subjected to isolation."[15]

22. Even prisoners in "isolated confinement" who are "double-celled" (i.e., housed with another prisoner) may nonetheless suffer many of the negative psychological effects that are described in the paragraphs below. In fact, in some ways, prisoners who are double-celled in an isolation unit have the worst of both worlds: they are "crowded" in and confined with another person inside a small cell but—and this is the crux of their "isolation"—simultaneously isolated from the rest of the mainstream prisoner population, deprived of even minimal freedom of movement, prohibited from access to meaningful prison programs, and denied opportunities for any semblance of "normal" social interaction.[16]

23. As I noted in passing above, researchers and practitioners know that meaningful social interactions and social connectedness can have a positive effect on people's physical and mental health and, conversely, that social isolation in general is potentially very harmful and can undermine health and psychological well-being.[17] Not surprisingly, there is now a reasonably large and

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[15] United States Department of Justice, Letter to the Honorable Tom Corbett, Re: *Investigation of the State Correctional Institution at Cresson and Notice of Expanded Investigation*, May 31, 2013, at p. 5 (emphasis in original), *available at* http://www.justice.gov/crt/about/spl/documents/cresson_findings_5-31-13.pdf, citing also to Wilkinson v. Austin, 545 U.S. 209, 214, 224 (2005), where the United States Supreme Court described solitary confinement as limiting human contact for 23 hours per day, and; Tillery v. Owens, 907 F.2d 418, 422 (3d Cir. 1990), where the Third Circuit described it as limiting contact for 21 to 22 hours per day.

[16] This is especially problematic if prisoners are involuntarily double-celled, have little or no choice over the identity of the person with whom they are double-celled, and have no practical or feasible means of changing cellmates if they become incompatible. Even under the best of circumstances, however, double-celling under conditions of otherwise isolated confinement may be difficult for prisoners to accommodate to.

[17] For example, see: Brock Bastian & Nick Haslam, *Excluded from Humanity: The Dehumanizing Effects of Social Ostracism*, Journal of Experimental Social Psychology, 46, 107-113 (2010);

growing literature on the significant risk that solitary or so-called "supermax" confinement poses for the mental health of prisoners. The long-term absence of meaningful human contact and social interaction, the enforced idleness and inactivity, and the oppressive security and surveillance procedures, and the accompanying hardware and other paraphernalia that are brought or built into these units combine to create harsh, dehumanizing, and deprived conditions of confinement. These conditions predictably can impair the psychological functioning of the prisoners who are subjected to them.[18] For some prisoners, these impairments can be permanent and life-threatening.

24. In the admitted absence of a single "perfect" study of the phenomenon,[19] there is a substantial body of published literature that clearly

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Stephanie Cacioppo & John Cacioppo, *Decoding the Invisible Forces of Social Connections*, Frontiers in Integrative Neuroscience, 6, 51 (2012); DeWall, et al., *Belongingness as a Core Personality Trait: How Social Exclusion Influences Social Functioning and Personality Expression*, Journal of Personality, 79, 979-1012 (2011); Damiano Fiorillo & Fabio Sabatini, *Quality and Quantity: The Role of Social Interactions in Self-Reported Individual Health*, Social Science & Medicine, 73, 1644-1652 (2011); S. Hafner et al., *Association Between Social Isolation and Inflammatory Markers in Depressed and Non-depressed Individuals: Results from the MONICA/KORA Study*, Brain, Behavior, and Immunity, 25, 1701-1707 (2011); Johan Karremans, et al., *Secure Attachment Partners Attenuate Neural Responses to Social Exclusion: An fMRI Investigation*, International Journal of Psychophysiology, 81, 44-50 (2011); Graham Thornicroft, *Social Deprivation and Rates of Treated Mental Disorder: Developing Statistical Models to Predict Psychiatric Service Utilisation*, British Journal of Psychiatry, 158, 475-484 (1991).

[18] For example, see: Kristin Cloyes, David Lovell, David Allen & Lorna Rhodes, *Assessment of Psychosocial Impairment in a Supermaximum Security Unit Sample*, Criminal Justice and Behavior, 33, 760-781 (2006); Craig Haney, *Mental Health Issues in Long-Term Solitary and "Supermax" Confinement*, *supra* note 11; and Peter Smith, *The Effects of Solitary Confinement on Prison Inmates: A Brief History and Review of the Literature*, in Michael Tonry (Ed.), Crime and Justice (pp. 441-528). Volume 34. Chicago: University of Chicago Press (2006).

[19] No more than basic knowledge of research methodology is required to design the "perfect" study of the effects of solitary confinement: dividing a representative sample of prisoners (who had never been in solitary confinement) into two groups by randomly assigning half to either a treatment condition (say, two or more years in solitary confinement) or a control condition (the same length of time residing in a typical prison housing unit), and conducting longitudinal assessments of both groups (i.e., before, during, and after their experiences), by impartial researchers skilled at gaining the trust of prisoners (including ones perceived by the prisoner-participants as having absolutely no connection to the prison administration). Unfortunately, no more than basic knowledge of the realities of prison life and the practicalities of conducting

documents the distinctive patterns of psychological harm that can and do occur when persons are placed in solitary confinement. These broad patterns have been consistently identified in personal accounts written by persons confined in isolation, in descriptive studies authored by mental health professionals who worked in many such places, and in systematic research conducted on the nature and effects of solitary or "supermax" confinement. The studies have now spanned a period of over four decades, and were conducted in locations across several continents by researchers with different professional expertise, ranging from psychiatrists to sociologists and architects.[20]

25. For example, mental health and correctional staff who have worked in disciplinary segregation and isolation units have reported observing a range of problematic symptoms manifested by the prisoners confined in these places.[21]

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research in prisons is required to understand why such a study would be impossible to ever conduct. Moreover, any prison system that allowed truly independent, experienced researchers to perform even a reasonable approximation of such a study would be, almost by definition, so atypical as to call the generalizability of the results into question. Keep in mind also that the assessment process itself—depending on who carried it out, how often it was done, and in what manner—might well provide the solitary confinement participants with more meaningful social contact than they are currently afforded in a number of such units with which I am familiar, thereby significantly changing (and improving) the conditions of their confinement.

[20] For example, see: Arrigo, B., & Bullock, J., *The Psychological Effects of Solitary Confinement on Prisoners in Supermax Units: Reviewing What We Know and What Should Change*, International Journal of Offender Therapy and Comparative Criminology, 52, 622-640 (2008); Haney, *Mental Health Issues in Long-Term Solitary and "Supermax" Confinement,* and Haney & Lynch, *Regulating Prisons of the Future, supra* note 11; and Smith, *The Effects of Solitary Confinement on Prison Inmates, supra* note 17. The latter two citations to my own writing are included here because they contain an extensive number of references citing to the work of numerous other researchers (in lieu of reproducing those long lists of studies separately here). My own work builds on the work of those other researchers and my findings and conclusions are consistent with and corroborative of them.

[21] For detailed reviews of all of these psychological issues, and references to the many empirical studies that support these statements, see, for example: Haney, *Mental Health Issues in Long-Term Solitary and "Supermax" Confinement*, and Haney & Lynch, *Regulating Prisons of the Future, supra* note 11; and Smith, *The Effects of Solitary Confinement on Prison Inmates*, *supra* note 18.

The authors of one of the early studies of solitary confinement summarized their findings by concluding that "[e]xcessive deprivation of liberty, here defined as near complete confinement to the cell, results in deep emotional disturbances."[22]

26. A decade later, Professor Hans Toch's large-scale psychological study of prisoners "in crisis" in New York State correctional facilities included important observations about the effects of isolation.[23] After he and his colleagues had conducted numerous in-depth interviews of prisoners, Toch concluded that "isolation panic" was a serious problem in solitary confinement. The symptoms that Toch reported included rage, panic, loss of control and breakdowns, psychological regression, a build-up of physiological and psychic tension that led to incidents of self-mutilation.[24] Professor Toch noted that although isolation panic could occur under other conditions of confinement it was "most sharply prevalent in segregation." Moreover, it marked an important dichotomy for prisoners: the "distinction between imprisonment, which is tolerable, and isolation, which is not."[25]

27. More recent studies have identified other symptoms that appear to be produced by these conditions. Those symptoms include: appetite and sleep

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[22] Bruno M. Cormier & Paul J. Williams, *Excessive Deprivation of Liberty*, Canadian Psychiatric Association Journal, 11, 470-484 (1966), at p. 484. For other early studies of solitary confinement, see: Paul Gendreau, N. Freedman, G. Wilde, & George Scott, *Changes in EEG Alpha Frequency and Evoked Response Latency During Solitary Confinement*, Journal of Abnormal Psychology, 79, 54-59 (1972); George Scott & Paul Gendreau, *Psychiatric Implications of Sensory Deprivation in a Maximum Security Prison*, Canadian Psychiatric Association Journal, 12, 337-341 (1969); Richard H. Walters, John E. Callagan & Albert F. Newman, *Effect of Solitary Confinement on Prisoners*, American Journal of Psychiatry, 119, 771-773 (1963).

[23] Hans Toch, *Men in Crisis: Human Breakdowns in Prisons*. Aldine Publishing Co.: Chicago (1975).

[24] *Id.* at 54.

[25] *Ibid.*

disturbances, anxiety, panic, rage, loss of control, paranoia, hallucinations, and self-mutilations. Moreover, direct studies of prison isolation have documented an extremely broad range of harmful psychological reactions. These effects include increases in the following potentially damaging symptoms and problematic behaviors: anxiety, withdrawal, hypersensitivity, ruminations, cognitive dysfunction, hallucinations, loss of control, irritability, aggression, rage, paranoia, hopelessness, a sense of impending emotional breakdown, self-mutilation, and suicidal ideation and behavior.[26]

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[26] In addition to the numerous studies cited in the articles referenced *supra* at notes 11 and 15, there is a significant international literature on the adverse effects of solitary confinement. For example, see: Henri N. Barte, *L'Isolement Carceral*, Perspectives Psychiatriques, 28, 252 (1989). Barte analyzed what he called the "psychopathogenic" effects of solitary confinement in French prisons and concluded that prisoners placed there for extended periods of time could become schizophrenic instead of receptive to social rehabilitation. He argued that the practice was unjustifiable, counterproductive, and "a denial of the bonds that unite humankind." In addition, see: Reto Volkart, *Einzelhaft: Eine Literaturubersicht* (Solitary confinement: A literature survey), Psychologie -Schweizerische Zeitschrift fur Psychologie und ihre Anwendungen, 42, 1-24 (1983) (reviewing the empirical and theoretical literature on the negative effects of solitary confinement); Reto Volkart, Adolf Dittrich, Thomas Rothenfluh, & Paul Werner, *Eine Kontrollierte Untersuchung uber Psychopathologische Effekte der Einzelhaft* (A controlled investigation on psychopathological effects of solitary confinement), Psychologie - Schweizerische Zeitschrift fur Psychologie und ihre Anwendungen, 42, 25-46 (1983) (when prisoners in "normal" conditions of confinement were compared to those in solitary confinement, the latter were found to display considerably more psychopathological symptoms that included heightened feelings of anxiety, emotional hypersensitivity, ideas of persecution, and thought disorders); Reto Volkart, et al., *Einzelhaft als Risikofaktor fur Psychiatrische Hospitalisierung* (Solitary confinement as a risk for psychiatric hospitalization), Psychiatria Clinica, 16, 365-377 (1983) (finding that prisoners who were hospitalized in a psychiatric clinic included a disproportionate number who had been kept in solitary confinement); Boguslaw Waligora, *Funkcjonowanie Czlowieka W Warunkach Izolacji Wieziennej* (How men function in conditions of penitentiary isolation), Seria Psychologia I Pedagogika NR 34, Poland (1974) (concluding that so-called "pejorative isolation" of the sort that occurs in prison strengthens "the asocial features in the criminal's personality thus becoming an essential cause of difficulties and failures in the process of his resocialization"). See, also, Ida Koch, *Mental and Social Sequelae of Isolation: The Evidence of Deprivation Experiments and of Pretrial Detention in Denmark, in The Expansion of European Prison Systems*, Working Papers in European Criminology, No. 7, 119 (Bill Rolston & Mike Tomlinson eds. 1986) who found evidence of "acute isolation syndrome" among detainees that occurred after only a few days in isolation and included "problems of concentration, restlessness, failure of memory, sleeping problems and impaired sense of time an ability to follow the rhythm of day and night" (at p. 124). If the isolated confinement persisted—"a few weeks" or more—there was the possibility that detainees would develop "chronic isolation syndrome," including intensified difficulties with memory and concentration, "inexplicable fatigue," a "distinct emotional lability" that can include "fits of rage," hallucinations, and the "extremely common" belief among isolated prisoners that "they have gone or are going mad" (at p. 125). See, also: Michael Bauer, Stefan Priebe, Bettina

28. In addition, a number of correlational studies have been done examining the relationship between housing type and various kinds of incident reports in prison. They show that self-mutilation and suicide are more prevalent in isolated, punitive housing units such as administrative segregation and security housing or SHU, where prisoners are subjected to solitary-like conditions of confinement. For example, clinical researchers Ray Patterson and Kerry Hughes attributed higher suicide rates in solitary confinement-type units to the heightened levels of "environmental stress" that are generated by the "isolation, punitive sanctions, [and] severely restricted living conditions" that exist there.[27] These authors reported that "the conditions of deprivation in locked units and higher-security housing were a common stressor shared by many of the prisoners who committed suicide."[28] Similarly, a team of researchers in New York recently reported that "[i]nmates punished by solitary confinement were approximately 6.9 times as likely to commit acts of self-harm after we controlled for the length of jail stay, SMI [whether the inmate was seriously mentally ill],

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Haring & Kerstin Adamczak, *Long-Term Mental Sequelae of Political Imprisonment in East Germany*, Journal of Nervous & Mental Disease, 181, 257-262 (1993), who reported on the serious and persistent psychiatric symptoms suffered by a group of former East German political prisoners who sought mental health treatment upon release and whose adverse conditions of confinement had included punitive isolation.

[27] Raymond Patterson & Kerry Hughes, *Review of Completed Suicides in the California Department of Corrections and Rehabilitation, 1999-2004*, Psychiatric Services, 59, 676-682 (2008), at p. 678.

[28] Ibid. See also: Lindsay M. Hayes, *National Study of Jail Suicides: Seven Years Later*. Special Issue: Jail Suicide: A Comprehensive Approach to a Continuing National Problem, Psychiatric Quarterly, 60, 7 (1989); Alison Liebling, *Vulnerability and Prison Suicide*, British Journal of Criminology, 36, 173-187 (1995); and Alison Liebling, *Prison Suicide and Prisoner Coping*, Crime and Justice, 26, 283-359 (1999).

age, and race/ethnicity."[29] In addition, signs of deteriorating mental and physical health (beyond self-injury), other-directed violence, such as stabbings, attacks on staff, and property destruction, and collective violence are also more prevalent in these units.[30]

29. The empirical consensus on the harmfulness of isolated or solitary-type confinement is very broad. I say that despite the fact that there is one study that has been cited for a different conclusion. The so-called "Colorado Study" of *one year* in "administrative segregation," is sometimes referenced as evidence that isolated confinement does not pose a significant risk to the psychological well-being of inmates. In addition to the fact that the Colorado Study focused on one year in administrative segregation, as opposed to the core issue in the present case—the effects of severe isolation for ten (10) years or more—there are several other reasons why the Colorado Study is a singularly inappropriate study on which to rely. They establish the fact that this study should not serve as the basis for minimizing or ignoring the grave risk of "psychological damage to inmates" that occurs in isolation units like those at issue in the *Ashker* case.

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[29] Fatos Kaba, et al., *Solitary Confinement and Risk of Self-Harm Among Jail Inmates*, American Journal of Public Health, *104*, 442-447 (2014), at p. 445.

[30] For example, see: Howard Bidna, *Effects of Increased Security on Prison Violence*, Journal of Criminal Justice, 3, 33-46 (1975); K. Anthony Edwards, *Some Characteristics of Prisoners Transferred from Prison to a State Mental Hospital*, Behavioral Sciences and the Law, 6, 131-137 (1988); Elmer H. Johnson, *Felon Self-Mutilation: Correlate of Stress in Prison*, in Bruce L. Danto (Ed.) Jail House Blues. Michigan: Epic Publications (1973); Anne Jones, *Self-Mutilation in Prison: A Comparison of Mutilators and Nonmutilators*, Criminal Justice and Behavior, 13, 286-296 (1986); Peter Kratcoski, *The Implications of Research Explaining Prison Violence and Disruption*, Federal Probation, 52, 27-32 (1988); Ernest Otto Moore, *A Prison Environment: Its Effect on Health Care Utilization*, Dissertation Abstracts, Ann Arbor, Michigan (1980); Frank Porporino, *Managing Violent Individuals in Correctional Settings*, Journal of Interpersonal Violence, 1, 213-237 (1986); and Pamela Steinke, *Using Situational Factors to Predict Types of Prison Violence*, 17 Journal of Offender Rehabilitation, 17, 119-132 (1991).

30. For one, the Colorado Study has been roundly criticized by a number of researchers from a variety of disciplines (psychology, psychiatry, anthropology, history, and law) as deeply flawed in its methodology. Many of these experts have published critiques of the study in which they conclude that its methodological problems are so severe as to render the results uninterpretable.[31]

31. These and other kinds of methodological problems led well-known prison researchers David Lovell and Hans Toch to note in their critique of the study that "[d]espite the volume of the data, no systematic interpretation of the findings is possible."[32] Many other published criticisms of the study's methodology reached similar conclusions.[33]

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[31] The serious methodological problems include: the inappropriate exposure of all groups to the key treatment variable (isolation); the continued cross-contamination of the general population and administrative segregation groups throughout the study (confounding the interpretation of any differences or similarities between them); the use of a convenience and patchwork sample rather than a representative group of participants; the failure to record (and, therefore, the inability to quantify or code) the exact nature of the conditions of confinement (especially, the amount or degree of isolation) to which each participant or group of participants was exposed; employing a single, inexperienced research assistant with only a bachelor's degree (who wore a badge identifying her to the prisoners as a department of corrections employee) to collect *all* of the study data; problematic instances in which the research assistant questioned the truthfulness of the prisoners' responses and required them to "redo" the tests being administered; the total reliance on self-reported rating scales that were created through the disaggregation and reconstruction/recombination of subscales taken from other test batteries that had not been validated with prisoner populations; and the failure to utilize even a basic interview with the study participants or to make use of the behavioral observational data that were collected (that appeared at odds with the prisoner self reports).

[32] David Lovell & Hans Toch, *Some Observations about the Colorado Segregation Study*, Correctional Mental Health Report, May/June 2011, 3-4, 14.

[33] For example, see: Stuart Grassian & Terry Kupers, *The Colorado Study Versus the Reality of Supermax Confinement*, Correctional Mental Health Report, May/June 2011, 1-4; Lorna A. Rhodes & David Lovell, *Is Adaptation the Right Question? Addressing the Larger Context of Administrative Segregation: Commentary on One Year Longitudinal Study of the Psychological Effects of Administrative Segregation*, Corrections & Mental Health, June 21, 2011, 1-9, *available at* http://community.nicic.gov/cfs-file.ashx/__key/CommunityServer.Components.PostAttachments/00.00.05.95.19/Supermax-_2D00_-T-_2D00_-Rhodes-and-Lovell.pdf; Sharon Shalev & Monica Lloyd, *If This Be Method, Yet There Is Madness in It: Commentary on One Year Longitudinal Study of the Psychological Effects of Administrative Segregation*, Corrections & Mental Health, June 21, 2011, 1-7, *available at* http://community.nicic.gov/cfs-

32. The study's numerous and serious methodological flaws notwithstanding, the authors of the Colorado Study have themselves repeatedly taken public positions that explicitly acknowledge the potentially harmful effects of prolonged prison isolation; most of them have published articles, forwarded recommendations, and drafted position papers in favor of *limiting* the use of isolation altogether and, among other things, *against* housing mentally ill prisoners inside these kinds of units. For example, Maureen O'Keefe, a researcher for the Colorado Department of Corrections and the primary author of the study, is on record as favoring significant reductions in the use of prison isolation (or "administrative segregation" as it is known in Colorado). She is also very clear about what she termed a misuse or misinterpretation of the study's results: "[W]e do not believe in any way and we do not promote the study as something to argue for the case of segregation… My interpretation is that people believe that this study sanctions administrative segregation for mentally ill and nonmentally ill alike… I do not believe that the conclusions lend to that and that is not the intended use of our study.[34]

33. In addition, two of the study's other authors, Jeffrey Metzner and Jamie Fellner, have published an article concluding that "[i]solation can be harmful to any prisoner," that the potentially adverse effects of isolation include

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file.ashx/__key/CommunityServer.Components.PostAttachments/00.00.05.95.21/Supermax-_2D00_-T-_2D00_-Shalev-and-Lloyd.pdf; and Peter Scharff Smith, *The Effects of Solitary Confinement: Commentary on One Year Longitudinal Study of the Psychological Effects of Administrative Segregation*, Corrections & Mental Health, June 21, 2011, 1-11, *available at* http://community.nicic.gov/cfs-file.ashx/__key/CommunityServer.Components.PostAttachments/00.00.05.95.22/Supermax-_2D00_-T-_2D00_-Smith.pdf.

[34] Deposition of Maureen O'Keefe at 96, 101 (Oct. 25, 2013), Sardakowski v. Clements, No. 1:2012cv01326 (D. Colo. filed May 21, 2012) (Civil Action No. 12-CV-01326-RBJ-KLM).

"anxiety, depression, anger, cognitive disturbances, perceptual distortions, obsessive thoughts, paranoia, and psychosis."[35] In fact, their deep concerns over the harmfulness of isolated conditions of confinement led them to recommend that professional organizations "should actively support practitioners who work for changed segregation policies and they should use their institutional authority to press for a nationwide rethinking of the use of isolation" in the name of their "commitment to ethics and human rights."[36]

34. Indeed, the painfulness and damaging potential of solitary confinement is underscored by the fact that it is commonly used in so-called "brainwashing" and certain forms of torture. In fact, many of the negative effects of solitary confinement are analogous to the acute reactions suffered by torture and trauma victims, including post-traumatic stress disorder ("PTSD") and the kind of psychiatric sequelae that plague victims of what are called "deprivation and constraint" torture techniques.[37]

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[35] Jeffrey Metzner & Jamie Fellner, *Solitary Confinement and Mental Illness in U.S. Prisons: A Challenge for Medical Ethics,* Journal of the Academy of Psychiatry and Law, 38, 104-108 (2010), at p. 104, *available at* http://www.hrw.org/sites/default/files/related_material/Solitary%20Confinement%20and%20Mental%20Illness%20in%20US%20Prisons.pdf.

[36] Id. at p. 107. In addition to the serious methodological flaws that have been identified in the Colorado Study, and the positions that virtually all of its authors have taken acknowledging the harmful effects of isolation and opposing its use with mentally ill prisoners in particular, the Colorado Department of Corrections itself has moved over the last several years to both very significantly reduce the overall number of prisoners who are housed in isolation units (again, termed "administrative segregation" there). Memo to Wardens from Lou Archuleta, Interim Director of Prisons, Colorado DOC, December 10, 2013. See, also: Jennifer Brown, *Colorado Stops Putting Mentally Ill Prisoners in Solitary Confinement*, Denver Post, Dec. 12, 2013, *available at* http://www.denverpost.com/news/ci_24712664/colorado-wont-put-mentally-ill-prisoners-solitary-confinement.

[37] Solitary confinement is among the most frequently used psychological torture techniques. In D. Foster, *Detention & Torture in South Africa: Psychological, Legal & Historical Studies*, Cape Town: David Philip (1987), Psychologist Foster listed solitary confinement among the most common "psychological procedures" used to torture South African detainees (at p. 69), and concluded that "[g]iven the full context of dependency, helplessness and social isolation common

35. The *prevalence* of psychological symptoms (that is, the percentage of prisoners who are placed in these units who suffer from these and related signs of psychological distress) is often very high. For example, in the study that I alluded to in passing earlier in this Expert Report, I conducted systematic assessments of a randomly selected sample of 100 prisoners housed at the same facility that is the focus of the present litigation—the PBSHU. The sample was randomly selected to ensure that it consisted of a representative group of SHU prisoners. The representativeness of the sample allowed me to estimate the prevalence of psychological trauma and isolation-related pathology among the population of PBSHU prisoners. In fact, I found that every symptom of psychological distress that I measured but one (fainting spells) was suffered by more than half of the prisoners who were interviewed.[38] Many of the symptoms were reported by two-thirds or more of the prisoners assessed in this isolated housing unit, and some were suffered by nearly everyone. Well over half of the prisoners who were isolated in the PBSHU reported a constellation of symptoms—headaches, trembling, sweaty palms, and heart palpitations—that are commonly regarded as stress-related.

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to conditions of South African security law detention, there can be little doubt that solitary confinement under these circumstances should in itself be regarded as a form of torture" (at p. 136). See also: Matthew Lippman, The *Development and Drafting of the United Nations Convention Against Torture and Other Cruel, Inhuman or Degrading Treatment or Punishment*, 27 Boston College International & Comparative Law Review, 27, 275 (1994); Tim Shallice, *Solitary Confinement—A Torture Revived?* New Scientist, November 28, 1974; F.E. Somnier & I.K. Genefke, *Psychotherapy for Victims of Torture*, British Journal of Psychiatry, 149, 323-329 (1986); and Shaun R. Whittaker, *Counseling Torture Victims*, The Counseling Psychologist, 16, 272-278 (1988).

[38] See Haney, *Mental Health Issues in Long-Term Solitary and "Supermax" Confinement supra* note 11.

36. I also found that almost all of the prisoners whom I evaluated in the PBSHU reported ruminations or intrusive thoughts, an oversensitivity to external stimuli, irrational anger and irritability, difficulties with attention and often with memory, and a tendency to socially withdraw. Almost as many prisoners reported a constellation of symptoms indicative of mood or emotional disorders—concerns over emotional flatness or losing the ability to feel, swings in emotional responding, and feelings of depression or sadness that did not go away. Finally, sizable minorities of the prisoners reported symptoms that are typically only associated with more extreme forms of psychopathology—hallucinations, perceptual distortions, and thoughts of suicide.

37. It is important to note—especially in the context of the current case—that these reported symptoms of psychological trauma and the psychopathological effects of isolation came from prisoners who, by definition, were housed at the PBSHU for a maximum of no more than three (3) or four (4) years. The facility opened in 1989, and the interviews that I conducted took place just a few years later (although it is certainly true that some of the prisoners I interviewed for the study I completed in 1993 had been in isolation units at other prisons). In contrast, the prisoners in the *Ashker* Plaintiff class have been housed in the PBSHU for much longer periods of time—ten (10) years or more (in addition to, in some cases, being housed in isolation units prior to coming to the PBSHU). And, as I also noted, the Plaintiff class includes some prisoners who were interviewed by me in the PBSHU in 1992 and 1993, who reported many of the symptoms of psychological distress described above, and who are *still* at the facility.

38. Although these specific symptoms of psychological stress and the psychopathological reactions to isolation are numerous and well-documented, and provide important indices of the risk of harm to which isolated prisoners are subjected, there are other significant aspects to the psychological pain and dysfunction that solitary confinement can produce, ones that extend beyond these specific and more easily measured symptoms and reactions. Depriving people of normal social contact and meaningful social interaction over long periods of time can damage or distort their social identities, destabilize their sense of self and, for some, destroy their ability to function normally in free society.

39. Psychological science has long recognized the critical role of social contact in establishing and maintaining emotional health and well-being. As one researcher put it: "Since its inception, the field of psychology emphasized the importance of social connections."[39] For example, the importance of "affiliation"—the opportunity to have meaningful contact with others—in reducing anxiety in the face of uncertain or fear-arousing stimuli is long established in social psychological literature.[40] In addition, one of the ways that people determine the appropriateness of their feelings—indeed, how we establish

[39] DeWall, C., *Looking Back and Forward: Lessons Learned and Moving Forward*, in C. DeWall (Ed.), The Oxford Handbook of Social Exclusion (pp. 301-303). New York: Oxford University Press (2013), at p. 301.

[40] For example, see: Stanley Schachter, *The Psychology of Affiliation: Experimental Studies of the Sources of Gregariousness*. Stanford, CA: Stanford University Press (1959); Irving Sarnoff & Philip Zimbardo, *Anxiety, Fear, and Social Affiliation*, Journal of Abnormal Social Psychology, 62, 356-363 (1961); Philip Zimbardo & Robert Formica, *Emotional Comparison and Self-Esteem as Determinants of Affiliation*, Journal of Personality, 31, 141-162 (1963).

the very nature and tenor of our emotions—is through contact with others.[41] Prolonged social deprivation is painful and destabilizing in part because it deprives persons of the opportunity to ground their thoughts and emotions in a meaningful social context—to know what they feel and whether those feelings are appropriate.

40. Since this early research was conducted on the importance of affiliation, numerous scientific studies have established the psychological significance of social contact, connectedness and belongingness. They have concluded, among other things, that the human brain is literally "wired to connect" to others.[42] Thwarting this "need to connect" not only undermines psychological well-being but increases physical morbidity and mortality.

41. Indeed, in part out of recognition of the importance of the human need for social contact, connection, and belongingness, social psychologists and others have written extensively about the harmful effects of its deprivation—what happens when people are subjected to social exclusion and isolation. Years ago, Herbert Kelman argued that denying persons of contact with others was a form of dehumanization.[43] More recently, others have documented the ways in which

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[41] For example, see: A. Fischer, A. Manstead, & R. Zaalberg, *Social Influences on the Emotion Process*, in M. Hewstone & W. Stroebe (Eds.), European Review of Social Psychology (pp. 171-202). Volume 14. Wiley Press (2004); C. Saarni, *The Development of Emotional Competence*. New York: Guilford Press (1999); Stanley Schachter & Jerome Singer, *Cognitive, Social, and Physiological Determinants of Emotional State*, Psychological Review, 69, 379-399 (1962); L. Tiedens & C. Leach (Eds.), *The Social Life of Emotions*. New York: Cambridge University Press (2004); and S. Truax, *Determinants of Emotion Attributions: A Unifying View*, Motivation and Emotion, 8, 33-54 (1984).

[42] Lieberman, M., Social: Why Our Brains Are Wired to Connect. New York: Random House (2013).

[43] Kelman, H., *Violence Without Restraint: Reflections on the Dehumanization of Victims and Victimizers*. In G. Kren & L. Rappaport (Eds.), Varieties of Psychohistory (pp. 282-314). New York: Springer (1976).

social exclusion is not only "painful in itself," but also "undermines people's sense of belonging, control, self-esteem, and meaningfulness, reduces pro-social behavior, and impairs self-regulation."[44] Indeed, the subjective experience of social exclusion results in what have been called "cognitive deconstructive states" in which there is emotional numbing, reduced empathy, cognitive inflexibility, lethargy, and an absence of meaningful thought.[45]

42. In fact, the editor of an authoritative *Oxford Handbook of Social Exclusion* concluded the volume by summarizing the "serious threat" that social exclusion represents to psychological health and well-being, including "increased salivary cortisol levels… and blood flow to brain regions associated with physical pain," "sweeping changes" in attention, memory, thinking, and self-regulation, as well as changes in aggression and prosocial behavior. As he put it: "This dizzying array of responses to social exclusion supports the premise that it strikes at the core of well-being."[46]

43. In a broader sense, the social deprivation and social exclusion imposed by solitary confinement engenders *social pathology*—necessary adaptations that prisoners must make to live in an environment that is devoid of normal social contact—that is, to exist and function in the absence of meaningful interaction and closeness with others. In this socially pathological environment, prisoners have no choice but to adapt in socially pathological ways. Over time,

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[44] Bastian & Haslam, *supra* note 17, at p. 107, internal references omitted.

[45] Twenge, J., Catanese, K., & Baumeister, R. (2003). *Social Exclusion and the Deconstructed State: Time Perception, Meaninglessness, Lethargy, Lack of Emotion, and Self Awareness*. Journal of Personality and Social Psychology, 85, 409-423 (2003).

[46] DeWall, *supra* note 38, at p. 302.

they gradually change their patterns of thinking, acting and feeling to cope with the profoundly asocial world in which they are forced to live, accommodating to the absence of social support and the routine feedback that comes from normal, meaningful social contact.

44. There are several problematic features to the social pathologies that isolated prisoners are forced to adopt. The first is that, although these adaptations are functional—even *necessary*—under the isolated conditions in which they live, the fact that prisoners eventually "adjust" to the absence of others does not mean that the experience ceases to be painful. Some prisoners have told me that the absence of meaningful contact and the loss of closeness with others are akin to a dull ache or pain that never goes away. Others remain acutely aware of the relationships that have ended and the feelings that can never be rekindled.

45. Second, some prisoners cope with the painful, asocial nature of their isolated existence by paradoxically creating even more distance between themselves and others. For some, the absence of others becomes so painful that they convince themselves that they do not need social contact of any kind—that people are a "nuisance," after all, and the less contact they have the better. As a result, they socially withdraw further from the world around them, receding even more deeply into themselves than the sheer physical isolation of solitary confinement and its attendant procedures require. Others move from initially being starved for social contact to eventually being disoriented and even frightened by it. As they become increasingly unfamiliar and uncomfortable with

social interaction, they are further alienated from others and made anxious in their presence.[47]

46. Third, and finally, while these social pathological adaptations are functional and even necessary in the short-term, over time they tend to be internalized and persist long after the prisoner's time in isolation has ended. Thus, the adaptations move from being consciously employed survival strategies or noticeable reactions to immediate conditions of confinement to becoming more deeply ingrained ways of being. Prisoners may develop extreme habits, tendencies, perspectives, and beliefs that are difficult or impossible to relinquish once they are released. Although their adaptations may have been functional in isolation (or appeared to be so), they are typically acutely dysfunctional in the social world most prisoners are expected to re-enter. In extreme cases, these ways of being are not only dysfunctional but have been internalized so deeply that they become disabling, interfering with the capacity to live a remotely normal or fulfilling social life.

47. It is also important to note that, although social deprivation is the source of the greatest psychological pain that prisoners experience in solitary confinement, and places them at the greatest risk of harm, prison isolation units deprive prisoners of many other things as well. Solitary confinement typically includes high levels of repressive control, enforced idleness, reduced environmental stimulation, and physical or material deprivations that also

[47] For evidence that solitary confinement may lead to a withdrawal from social contact or an increased tendency to find the presence of people increasingly aversive or anxiety arousing, see: Cormier, B., & Williams, supra note 22; Haney, *supra* note 11; H. Miller & G. Young, *Prison Segregation: Administrative Detention Remedy or Mental Health Problem?*, Criminal Behaviour and Mental Health, 7, 85-94 (1997); Scott & Gendreau, *supra* note 21; Toch, *supra* note 22; and Waligora, *supra* note 25.

produce psychological distress and can exacerbate the negative consequences of social deprivation. Indeed, most of the things that we know are beneficial to prisoners—such as increased participation in institutional programming, contact visits with persons from outside the prison, opportunities for meaningful physical exercise or recreation, and so on[48]—are either functionally denied or greatly restricted for prisoners who are housed in isolation units. Thus, in addition to the social pathology that is created by the experience of solitary confinement, these other stressors also can produce additional negative psychological effects.

48. For example, we know that people in general require a certain level of mental and physical activity in order to remain mentally and physically healthy. Simply put, human beings need movement and exercise to maintain normal functioning. The severe restrictions that are imposed in isolation units—typically no more than an hour or so a day out of their cells—can negatively impact prisoners' well-being. Denying prisoners access to normal and necessary human activity places them at risk of psychological harm.

49. Similarly, apart from the profound social, mental and physical deprivations that solitary confinement can produce, prisoners housed in these units experience prolonged periods of monotony and idleness. Many of them experience a form of sensory deprivation or "reduced environmental stimulation" —there is an unvarying sameness to the physical stimuli that surround them. These prisoners exist within the same limited spaces and are subjected to the same repetitive routines, day in and day out. There is little or no external

[48] J. Wooldredge, *Inmate Experiences and Psychological Well-Being*, Criminal Justice and Behavior, 26, 235-250 (1999).

variation to the experiences they are permitted to have or can create for themselves. They not only see and experience the same extremely limited physical environment, but also have minimal, routinized, and superficial contacts with the same very small group of people, again and again, for years on end. This loss of perceptual and cognitive or mental stimulation may result in the atrophy of important skills and capacities.[49]

50. In addition, conditions of solitary confinement in most prison isolation units deprive prisoners of the opportunity to give and receive caring human touch. This is certainly true of the PBSHU, where contact visits are absolutely prohibited. In the case of Plaintiff class members, this means that they have gone for a decade or more without ever touching another person with affection. Yet, psychologists have long known that: "Touch is central to human social life. It is the most developed sensory modality at birth, and it contributes to cognitive, brain, and socioemotional development and childhood."[50] The need for caring human touch is so fundamental that early deprivation is a risk factor for neurodevelopmental disorders, depression, suicidality, and other self destructive behavior.[51] Later deprivation is associated with violent behavior in adolescents.[52]

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[49] For examples of this range of symptoms, see: Brodsky & Scogin, *Inmates in Protective Custody: First Data on Emotional Effects*, Forensic Reports, 1, 267-280 (1988); Grassian, S., *Psychopathological Effects of Solitary Confinement*, American Journal of Psychiatry, 140, 1450-54 (1983); Haney, *supra* note 11; Miller & Young, *supra* note 47; and Volkart, et al., *supra* note 26.

[50] Hertenstein, M., Keltner, D., App, B., Bulleit, B, & Jaskolka, A., *Touch Communicates Distinct Emotions*. Emotion, 6, 528-533 (2006), at p. 528. See, also: Hertenstein, M., & Weiss, S. (Eds.), The Handbook of Touch: Neuroscience, Behavioral, and Health Perspectives. New York: Springer (2011).

[51] For example, see: Cascio, C., *Somatosensory Processes in Neurodevelopmental Disorders*. Journal of Neurodevelopmental Disorders, 2, 62-69 (2010); Field, S., *Touch Deprivation and Aggression Against Self Among Adolescents*, in Stoff, D. & Susman, E. (Ed.), Developmental psychobiology of aggression (117-140). New York: Cambridge (2005).

Recent theory and research now indicate that "touch is a primary platform for the development of secure attachments and cooperative relationships," is "intimately involved in patterns of caregiving," is a "powerful means by which individuals reduce the suffering of others," and also "promotes cooperation and reciprocal altruism."[53]

51. The uniquely prosocial emotion of compassion "is universally signaled through touch," so that persons who live in a world without touch are denied the experience of receiving or expressing compassion in this way.[54] Researchers have found that caring human touch mediates a sense of security and place, a sense of shared companionship, of being and nurturing, feelings of worth and competence, access to reliable alliance and assistance, and guidance and support in stressful situations.[55] A number of experts have argued that caring human touch is so integral to our well being that it is actually therapeutic; it has been recommended to treat a host of maladies including depression, suicidality, and learning disabilities.[56]

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[52] Field, T., *Violence and Touch Deprivation in Adolescents*, Adolescence, 37, 735-749 (2002)

[53] Goetz, J., Keltner, D., & Simon-Thomas, E., *Compassion: An Evolutionary Analysis and Empirical Review*, Psychological Bulletin, 136, 351-374 (2010), at p. 360.

[54] Stellar, J., & Keltner, D., Compassion, in Tugade, M., Shiota, M., & Kirby, L. (Eds.), Handbook of Positive Emotions (pp. 329-341). New York: Guilford (2014)

[55] Weiss, R., *The Attachment Bond in Childhood and Adulthood*, in C. Parkes, J. Stevenson-Hinde, & P. Marris (Eds.), Attachment Across the Life Cycle (66-76). London: Routledge (1995).

[56] For example, see: Dobson, S., Upadhyaya, S., Conyers, I., & Raghavan, R., *Touch in the Care of People with Profound and Complex Needs*, Journal of Learning Disabilities, 6, 351-362 (2002); Field, T., *Deprivation and Aggression Against Self Among Adolescents*. In D. Stoff & E. Susman(Eds.), Developmental Psychobiology of Aggression (pp. 117-140). New York: Cambridge (2005)

52. Not every isolated prisoner will suffer all of the previously described adverse psychological reactions to their severe conditions of confinement. But the overall nature and magnitude of the negative psychological reactions that I have documented in my own research and that have been reported by others in the literature underscore the stressfulness and painfulness of this kind of confinement, the lengths to which prisoners must go to adapt and adjust to it, and the risk of harm that it creates. The potentially devastating effects of these conditions are reflected in the characteristically high numbers of suicide deaths, incidents of self-harm and self-mutilation that occur in many of these units.

53. The years of sustained research on solitary confinement, the negative outcomes that have been documented across time and locality, and the theoretical consistency of these findings with what is known more generally in the psychological literature about the harmful effects of isolation leave little doubt about its negative effects. These effects are not only painful but can do real harm and inflict real damage that is sometimes severe and can be irreversible. Indeed, for some prisoners, the attempt to cope with isolated confinement sets in motion a set of cognitive, emotional, and behavioral changes that are long-lasting. They can persist beyond the time that prisoners are housed in isolation and lead to long-term disability and dysfunction.

54. Thus, the accumulated weight of the scientific evidence that I have cited and summarized above documents and confirms that isolated confinement can produce a range of adverse psychological effects. We clearly do know what happens to people in prison and elsewhere in society when they are deprived of normal social contact for extended periods of time. The evidence I have

summarized above describes and details the risk of psychological harm that long-term isolation creates, including mental pain and suffering and the increased incidence of self-harm and suicide.

55. The psychological literature underscores the importance of meaningful social contact and interaction, in essence establishing these things as identifiable human needs. Over the long-term, they may be as essential to a person's psychological or mental health as adequate food, clothing, and shelter are to his or her physical well-being.

56. In large part in response to the scientific evidence that I have summarized above, and out of the recognition that meaningful social contact and interaction is central to psychological health and well-being, virtually every major human rights and mental health organization in the United States as well as internationally have taken public stands in favor of significantly limiting solitary or isolated confinement use (if not abandoning it altogether). These organizations include major legal, medical, and health organizations, as well as faith communities and international monitoring bodies.[57]

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[57] See, e.g., Special Rapporteur on Torture and Other Cruel, Inhuman or Degrading Treatment or Punishment, *Interim Report of the Special Rapporteur on Torture and Other Cruel, Inhuman or Degrading Treatment or Punishment*, U.N. Doc A/66/268, ¶¶ 76-78 (Aug. 5, 2011) (asserting that solitary confinement for longer than 15 days constitutes torture, and that juveniles and people with mental illness should never be held in solitary confinement); American Academy of Child and Adolescent Psychiatry, *Solitary Confinement of Juvenile Offenders* (2012), *available at* http://www.aacap.org/AACAP/Policy_Statements/2012/Solitary_Confinement_of_Juvenile_Offenders.aspx (opposing "the use of solitary confinement in correctional facilities for juveniles," stating that "any youth that is confined for more than 24 hours must be evaluated by a mental health professional," and aligning AACAP with the United Nations Rules for the Protection of Juveniles Deprived of their Liberty, which includes among "disciplinary measures constituting cruel, inhuman or degrading treatment" "closed or solitary confinement or any other punishment that may compromise the physical or mental health of the juvenile concerned"); American Psychiatric Association, *Position Statement on Segregation of Prisoners with Mental Illness* (2012), *available at* http://www.psych.org/File%20Library/Learn/Archives/ps2012_PrisonerSegregation.pdf ("Prolonged segregation of adult inmates with serious mental illness, with rare exceptions, should be avoided due to the potential for harm to such inmates.");

57. In fact, in recognition of the adverse mental health effects of segregated, solitary, or isolated confinement, the American Bar Association's *Standards for Criminal Justice on the Treatment of Prisoners* mandate that "[s]egregated housing should be for the briefest term and under the least

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American Public Health Association, *Solitary Confinement as a Public Health Issue*, Policy No. 201310 (2013), *available at* http://www.apha.org/advocacy/policy/policysearch/default.htm?id=1462 (detailing the public-health harms of solitary confinement; urging correctional authorities to "eliminate solitary confinement for security purposes unless no other less restrictive option is available to manage a current, serious, and ongoing threat to the safety of others"; and asserting that "[p]unitive segregation should be eliminated"); Mental Health America, *Seclusion and Restraints, Policy Position Statement 24* (2011), *available at* http://www.nmha.org/positions/seclusion-restraints ("urg[ing] abolition of the use of seclusion . . . to control symptoms of mental illnesses"); National Alliance on Mental Illness, *Public Policy Platform Section 9.8*, *available at* http://www.nami.org/Template.cfm?Section=NAMI_Policy_Platform&Template=/ContentManagement/ContentDisplay.cfm&ContentID=38253 ("oppos[ing] the use of solitary confinement and equivalent forms of extended administrative segregation for persons with mental illnesses"); Society of Correctional Physicians, *Position Statement, Restricted Housing of Mentally Ill Inmates* (2013), *available at* http://societyofcorrectionalphysicians.org/resources/position-statements/restricted-housing-of-mentally-ill-inmates ("acknowledg[ing] that prolonged segregation of inmates with serious mental illness, with rare exceptions, violates basic tenets of mental health treatment," and recommending against holding these prisoners in segregated housing for more than four weeks); New York State Council of Churches, *Resolution Opposing the Use of Prolonged Solitary Confinement in the Correctional Facilities of New York State and New York City* (2012), *available at* https://sites.google.com/site/nyscouncilofchurches /priorities/on-solitary-confinement; Presbyterian Church (USA), *Commissioners' Resolution 11-2, On Prolonged Solitary Confinement in U.S. Prisons* (2012), *available at* https://pc-biz.org/MeetingPapers/(S(em2ohnl5h5sdehz2rjteqxtn))/Explorer.aspx?id=4389 (urging all members of the faith to participate in work to "significantly limit the use of solitary confinement"); Rabbinical Assembly, *Resolution on Prison Conditions and Prisoner Isolation* (2012), *available at* http://www.rabbinicalassembly.org/story/resolution-prison-conditions-and-prisoner-isolation?tp=377 (calling on prison authorities to end prolonged solitary confinement, and the solitary confinement of juveniles and of people with mental illness); American Bar Association, *ABA Criminal Justice Standards on the Treatment of Prisoners, Standards* 23-2.6-2.9, 23-3.8, 23-5.5 (2010), *available at* http://www.americanbar.org /publications/criminal_justice_section_archive/crimjust_standards_treatmentprisoners.html (limiting acceptable rationales for segregated housing and long-term segregated housing, stating that no prisoners with serious mental illness should be placed in segregation, requiring monitoring of mental-health issues in segregation, and requiring certain procedures for placement in long-term segregation, generally characterizing segregated housing as a practice of last resort, and requiring social interaction and programming for those placed in segregation for their own protection); New York Bar Association, *Committee on Civil Rights Report to the House of Delegates: Solitary Confinement in New York State 1-2 Resolution* (2013), *available at* http://www.nysba.org/WorkArea/DownloadAsset.aspx?id=26699 (calling on state officials to significantly limit the use of solitary confinement, and recommending that solitary confinement for longer than 15 days be proscribed).

restrictive conditions practicable."[58] Moreover, the ABA requires that the mental health of *all* prisoners in segregated housing "should be monitored" through a process that should include daily correctional staff logs "documenting prisoners' behavior," the presence of a "qualified mental health professional" inside each segregated housing unit "[s]everal times a week," weekly observations and conversations between isolated prisoners and qualified mental health professionals, and "[a]t least every [90 days], a qualified mental health professional should perform a comprehensive mental health assessment of each prisoner in segregated housing" (unless such assessment is specifically deemed unnecessary in light of prior individualized observations).[59] In addition, at intervals "not to exceed [30 days], correctional authorities should meet and document an evaluation of each prisoner's progress" in an evaluation that explicitly "should also consider the nature of the prisoner's mental health," and at intervals "not to exceed [90 days], a full classification review" should be conducted that addresses the prisoner's "individualized plan" in segregation with "a presumption in favor of removing the prisoner from segregated housing."[60]

58. Finally, in addition to prominent human rights, mental health, and legal organizations, distinguished expert panels that have investigated and analyzed these issues have reached similar conclusions. For example, in a 2006 published report based in part on a series of fact-finding hearings conducted in

[58] American Bar Association, *ABA Criminal Justice Standards on the Treatment of Prisoners, Standard 23-2.6(a)* (2010), *available at* http://www.americanbar.org/publications/criminal_justice_section_archive/crimjust_standards_treatmentprisoners.html [hereinafter "*ABA Standards*"].

[59] *ABA Standards*, 23-2.8(b).

[60] *ABA Standards*, 23-2.9.

the United States, in which diverse groups of nationally recognized experts testified about a wide range of prison issues, the bipartisan Commission on Safety and Abuse in America's Prisons concluded that solitary and "supermax"-type units were "expensive and soul destroying"[61] and recommended that prison systems "end conditions of isolation."[62]

59. Later that same year, an international group of prominent mental health and correctional experts meeting on psychological trauma in Istanbul, Tukey issued a joint statement on "the use and effects of solitary confinement." In what has come to be known as the "Istanbul Statement," they acknowledged that the "central harmful feature" of solitary confinement is its reduction of meaningful social contact to a level "insufficient to sustain health and well being."[63] Citing various statements, comments, and principles that had been previously issued by the United Nations—all recommending that the use of solitary confinement be carefully restricted or abolished altogether—the Istanbul group concluded that "[a]s a general principle solitary confinement should only be used in very exceptional cases, for as short a time as possible and only as a last resort." Notably, the specific recommendations they made about how such a regime should be structured and operated would, if adopted, end most forms of long-term isolated confinement.

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[61] Gibbons, John, and Katzenbach, Nicholas. *Confronting Confinement: A Report of the Commission on Safety and Abuse in America's Prisons*. New York: Vera Institute of Justice (2006), at p. 59, *available at* http://www.vera.org/sites/default/files/resources/downloads/Confronting_Confinement.pdf.

[62] Id. at p. 57.

[63] International Psychological Trauma Symposium, *Istanbul Statement on the Use and Effects of Solitary Confinement*. Istanbul, Turkey (December 9, 2007), *available at* http://www.univie.ac.at/bimtor/dateien/topic8_istanbul_statement_effects_solconfinment.pdf

60. In summary, the conclusion that long-term solitary or isolated confinement subjects prisoners to significant risk of grave psychological harm is theoretically sound, has widespread empirical support, and reflects the overwhelming consensus view of human rights, mental health, and legal organizations as well as expert groups that have carefully considered the issue.

V. The Nature of Solitary Confinement at the Pelican Bay SHU

61. As I noted above, the adverse psychological effects of solitary confinement are thought to vary as a function of the specific nature and duration of the isolated conditions to which prisoners are exposed. In this regard, there are better and worse isolation or supermax units, including some that have implemented practices and procedures intended to ameliorate the harsh conditions otherwise imposed and minimize the harm that they inflict on prisoners. It is also important to note that there are more and less resilient prisoners, including some who seem able to withstand the painfulness of these environments and to recover from the experience with few if any lasting effects, as well as others whose pre-existing vulnerabilities render them especially susceptible to isolation-related harm. None of these facts undermines the overall consensus that has emerged about the harmful effects of long-term isolation and the serious risk of harm that this form of confinement poses for all prisoners who are subjected to it.

62. As I noted in passing above, although my evaluation of the effects of long-term confinement in the Pelican Bay SHU was in a preliminary stage when I wrote in support of the Plaintiffs' class certification in April, 2013, the opinions that are contained in the present Expert Report are based on a very substantial

amount of additional data that I have collected and analyses I have conducted since then. These include an onsite inspection of current conditions of confinement at the facility, in-person confidential interviews with an additional group of eight (8) class members selected by the attorneys, a more sizable, representative sample of forty-one (41) class members (prisoners housed in the PBSHU for 10 years or more), a sample of twenty-five (25) long-term (10 years or more) current Pelican Bay GP prisoners with whom the SHU prisoners could be compared, and the review of an extensive amount of additional discovery material.

63. To reiterate something that I previously asserted, the PBSHU is very clearly built and operated as a solitary confinement or "supermax" prison. Indeed, in correctional circles it is regarded as one of the "prototypes" of the "supermax" prison form. Based on my tour of the facility in April, 2014 and the numerous interviews I conducted with prisoners, as well as the numerous passing conversations I have had with correctional staff and observations made onsite, it is clear that the PBSHU's essential features—its form and function—are largely unchanged from the facility that I came to know very well from the time of the *Madrid* litigation.

64. Of course, the extensive court order issued in *Madrid* and the subsequent monitoring of the implementation of the order changed the make-up of the prisoner population (by excluding mentally ill prisoners) and reduced the amount of excessive force used by staff. However, architecturally and procedurally, the PBSHU is remains physically structured and operated on a day-to-day basis in ways that are designed to minimize all forms of meaningful

human social contact for prisoners. To my knowledge, and in my experience, the facility continues to isolate prisoners in a manner and to a degree that rivals or exceeds any supermax prison in the world. Indeed, the level of isolation imposed at the PBSHU not only "may press the outer bounds of what most humans can psychologically tolerate,"[64] as Judge Henderson concluded in *Madrid*, but also appears to press against the outer bounds of what it is practically possible for correctional officials to achieve in terms of isolated conditions of confinement. That is, it is difficult to imagine how prisoners could be isolated much more.

65. PBSHU prisoners live under severe conditions of confinement inside cells that they almost never leave. The cells are uniform in dimension, affording prisoners approximately 80 square feet of space. They must eat, sleep, and defecate within that same space. The prisoners' regular opportunities for out-of-cell time are restricted to approximately an hour and a half a day, when they are permitted to enter a concrete enclosed "yard" (where they have access to recently installed "pull up" bars but nothing else). In addition, three days a week, they are given 10 minutes out-of-cell time to shower, which includes the time walking to and from their cells to the shower in the housing pod. They have little or no access to meaningful programs (except what can be accomplished while they are confined to their cells) and are prohibited from group activity of any kind. Aside from the very limited number of them who are double-celled, they have no regular, meaningful contact with one another. Correctional officers instruct them not to talk from pod to pod, or between the walls of their outside

[64] *Madrid* v. Gomez, 889 F. Supp. 1146 (N.D. Cal. 1995), at 1267.

exercise pens. Their brief contacts with correctional staff are entirely routinized and superficial, consisting of perfunctory bureaucratic exchanges (paperwork, feeding, being placed in restraints whenever they are moved elsewhere in the prison). The physical design of the prison and the housing units ensures that even these routinized and superficial contacts are minimized. For example, the pods are overseen and prisoner movement is controlled mostly through the use of electronic locking mechanisms, operated by staff who stay primarily in a central "control booth" inside the units, physically separate and apart from the pods and the prisoners.

66. The remote geographical location of the facility means that prisoners—the overwhelming majority of whom are from Southern California—have very few visitors.[65] Because all of their visits (social and legal) are held on a non-contact basis—through glass and over phones—prisoners are denied the opportunity to ever physically touch another human being with affection. Until recently, all PBSHU prisoners were prohibited from ever making or receiving a phone call (except when they received bereavement calls notifying them that an immediate family member had died). This meant that they never heard the voices of those loved ones who were unable to visit them.[66] As I say, it is hard to imagine

[65] The one-way driving distance between the Los Angeles area (the area from which the largest group of PBSHU prisoners resided) and Crescent City is well over 700 miles and takes nearly 13 hours to drive.

[66] It is my understanding that prisoners placed in Steps 1 or 2 of the Step Down Program at PBSHU are allowed one 15 minute phone call after completing a step. Steps 1 and 2 are designed as one year each but can be accomplished in a minimum of 6 months. A prisoner who is placed in the Step Down Program but who is not participating satisfactorily can "plateau" or "freeze" in Step 1 or 2 and therefore not "earn" any phone calls.

a level of prison isolation—the extent to which the prisoners are isolated from each other and from the outside world—that is more total and complete.

67. In addition, the duration of the isolation to which Plaintiff class members are subjected is largely out of step with sound correctional practices with which I am familiar, and with current national trends (not only reducing the numbers of prisoners housed in isolation but also placing limits on the lengths of time they stay there). It is worth noting that the United Nations Special Rapporteur concluded that solitary confinement lasting for longer than *15 days* can constitute torture[67] and, as I mentioned earlier, the American Psychiatric Association defined "prolonged segregation" as segregation lasting for *four weeks* or longer (which the APA said "should be avoided" for the seriously mentally ill).[68] At the time that the *Ashker* litigation commenced, the press reported that, based on information obtained from CDCR, there were an estimated 500 prisoners who had been continuously housed under these draconian conditions for 10 years or more.[69] Approximately 78 had been at the PBSHU for 20 years or more, some since the very day the facility opened in December, 1989**.**

68. It is my opinion that the conditions of extreme social isolation and enforced idleness that were described in the documents that I have reviewed and the interviews that I have conducted are equivalent to (or much harsher than) the

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[67] United Nations Special Rapporteur on Torture and Other Cruel, Inhuman or Degrading Treatment or Punishment, *Interim Report of the Special Rapporteur on Torture and Other Cruel, Inhuman or Degrading Treatment or Punishment, supra* note 57.

[68] American Psychiatric Association, *Position Statement on Segregation of Prisoners with Mental Illness, supra* note 57.

[69] http://www.scpr.org/news/2011/08/23/28382/pelican-bay-prison-officials-say-they-lock-gang-bo/

types of isolation conditions that I have seen and studied in other correctional institutions and about which the literature I have summarized in the preceding section of this Expert Report refers. The PBSHU is what *is* meant by the term "supermax" prison and, if the prisoners there are not being subjected to "solitary confinement," then solitary confinement has never existed in modern corrections history.

69. In fact, as I say, the only way in which the conditions and practices at PBSHU differ is that, as noted above, they are more extreme (i.e., more isolating) than most, and the lengths of time to which Plaintiff class members have been exposed to them are truly extraordinary. Such conditions and durations are truly harsh and severe by any measure and are precisely the kind that create a risk of substantial harm for all the prisoners who are subjected to them.

70. It is important to note also that all of the prisoners housed in the PBSHU are subjected to essentially the same harsh conditions of isolated confinement. The fact that some small number of these prisoners may be housed with cellmates (i.e., are "double-celled") does not necessarily mitigate and may even exacerbate the psychological impact of their SHU confinement. The kind of forced and strained "interactions" that take place between prisoners who are confined nearly around-the-clock in a small cell hardly constitute meaningful social contact. In fact, under these harsh and deprived conditions, the forced presence of another person may become an additional stressor and source of tension (even conflict) that exacerbates some of the negative reactions brought about by this kind of segregated confinement.

VI. The Psychological Effects of Long-Term Solitary Confinement at the Pelican Bay SHU (PBSHU)

71. In this section of my Expert Report I discuss the extensive *Ashker*-related empirical data that I have been able to collect over the last several years. These data document many of the ways that long-term isolation adversely affects prisoners housed in the PBSHU. I have collected and analyzed several distinct kinds of evidence that I discuss separately below, before reaching overall conclusions about their combined significance.

A. The Overall Psychological Status of the Current PBSHU Population

72. The data acquired directly from PBSHU prisoners are based primarily on a series of confidential, structured interviews that I conducted with them. The interviews consisted of several different kinds of questions to elicit the following information: demographic data (e.g., age, race/ethnicity, marital status), estimated prison sentence and time in prison (including time spent in Ad Seg and/or SHU, at Pelican Bay or elsewhere), a brief account of each prisoner's social and institutional history, and whether or not the prisoner had recently (over the last three month period) been bothered by any of a number of very specific symptoms or reactions. The specific questions consisted of a 27-item symptom checklist that addressed indices of psychological stress or trauma as well as adverse isolation-related pathological reactions that have been reported in the literature. Those prisoners who reported suffering from a symptom were asked whether they experienced it rarely, sometimes, often, or constantly (with a corresponding range in scores from 1 to 4 for purposes of data analysis).

1) Re-Interviews with Prisoners from the Original *Madrid* Sample

73. The small group of seven (7) prisoners whom I interviewed in April, 2013, represent an important starting point for understanding the effects of long-term PBSHU isolation. As I noted in my earlier declaration, each of them was a member of the original sample of a hundred (100) prisoners whom I interviewed in 1993, in conjunction with then pending *Madrid* litigation. At that time, I selected them randomly from the PBSHU roster and, along with the others I interviewed, they were representative of the larger group of prisoners who were then housed at the PBSHU. The results of the interviews from this original sample formed part of the basis for my testimony in *Madrid*.

74. In April, 2013, in conjunction with this case, I re-interviewed the seven (7) prisoners from that original sample who were currently housed at the PBSHU. I frankly did not know what to expect from this group of prisoners, some of whom had been kept in PBSHU isolation continuously, virtually since the day the facility opened, some 24 years earlier. I thought it was very possible that these men had become accustomed to their isolation. Since, by definition, they had survived the experience, it was entirely possible that they might no longer be as acutely aware of the deprivations to which they had been subjected for so long a period of time, or as sensitive to the painfulness of conditions of confinement that they had now endured for more than two decades.

75. I once wrote that "the human psyche abhors the sensation of constant pain" and, like all people, "prisoners can tolerate only so much suffering

before attempting to transform the experience to reduce its painfulness."[70] Most of us go to great lengths to avoid pain when we can, or to numb or desensitize ourselves to it when we cannot. Although the original group of PBSHU prisoners of which these men were members were clearly in pain at the time I interviewed them in 1993, I thought it was entirely possible that by 2013 they had become numbed or desensitized to the things that originally had caused them so much distress.

76. Remarkably, instead, the interviews I conducted in April, 2013 indicated that, twenty years later, these prisoners were *still* suffering. The passage of time had not significantly ameliorated their pain or dulled the men's senses to experience it.

77. Most of the prisoners told me that relatively little had changed at the institution over the years since *Madrid* was decided, except for several obvious and not unimportant court-ordered remedies to the unconstitutional conditions of confinement that existed there. Specifically, as I mentioned earlier and they confirmed, pursuant to the court's order, mentally ill prisoners had been removed from the facility, and the amount of excessive force used by staff had been reduced. Some of the prisoners felt that some of the most abusive staff members now no longer worked at the facility. In short, "things calmed down for a while" (Prisoner A). But the day-to-day level of isolation and deprivation remained more or less the same.

[70] Haney, C., Reforming Punishment: Psychological Limits to the Pains of Imprisonment. Washington, DC: American Psychological Association Books (2006), at p. 164

78. A number of the men I interviewed from this original sample told me that they felt they had, in a sense, "gotten used to" the isolation over the many years they were confined in the PBSHU. However, it was very apparent that what they meant was that they had come to regard their conditions of deprivation and isolated confinement as "normal"; indeed, it was the only life they now knew. At the same time, most acknowledged still suffering from a large number of specific adverse symptoms and reactions. Although they had come to regard their painful condition of social deprivations as "normal," they still suffered—felt—its effects, often very acutely.

79. Thus, as Table 1 illustrates, all or nearly all of these men described suffering from many stress- and isolation-related symptoms, including: anxiety (100%), depression (71%), ruminations (71%), irrational anger and irritability (86%), feelings of overall deterioration (71%), sleep disturbances (100%), the sense of an impending breakdown (71%), and social withdrawal (100%).[71] The psychological symptoms and reactions that they acknowledged to me in 2013 were very similar to the ones that they and others had reported experiencing in my 1993 study, when I posed these questions to them and to the much larger group of PBSHU prisoners I interviewed. The symptoms they reported to me also were similar to the psychiatric observations made by Dr. Kupers in his April 10, 2013 Declaration, and they are entirely consistent with the types of symptoms and the degree of suffering that the psychological literature warns are likely to occur in prisoners housed in these extreme conditions of isolated confinement.

[71] These percentages are based on a very small sample—only 7 prisoners—and are provided for purposes of illustration only.

Table 1: PSYCHOLOGICAL SYMPTOMS OF RE-INTERVIEWED PBSHU PRISONERS, 2013 vs. 1993 ORIGINAL SAMPLE

Symptoms of Psychological Stress and Trauma

	2013	1993
Anxiety, Nervousness	100%	[91%]
Headaches	100%	[88%]
Lethargy, Chronic Tiredness	100%	[84%]
Trouble Sleeping	100%	[84%]
Impending Breakdown	71%	[70%]
Perspiring Hands	71%	[68%]
Heart Palpitations	71%	[68%]
Loss of Appetite	29%	[63%]
Dizziness	100%	[56%]
Nightmares	71%	[55%]
Hands Trembling	43%	[51%]
Tingling Sensation*	14%	[19%]
Fainting	0%	[17%]
	2014: N=7	1993: N=100

Psychopathological Effects of Prolonged Isolation

	2014	1993
Ruminations	71%	[88%]
Irrational Anger	86%	[88%]
Oversensitivity to Stimuli	100%	[86%]
Confused Thinking	100%	[84%]
Social Withdrawal	100%	[83%]
Chronic Depression	71%	[77%]
Emotional Flatness	86%	[73%]
Mood Swings	86%	[71%]
Overall Deterioration	71%	[67%]
Talking to Self**	86%	[63%]
Violent Fantasies	71%	[61%]
Perceptual Distortions	29%	[44%]
Hallucinations	0%	[41%]
Suicidal Thoughts	29%	[27%]
	2014: N=7	1993: N=100

*Not necessarily a symptom of psychological stress or trauma. Included as a "control question" to provide a baseline against which to measure the significance of the trauma-related responses.

** An adaptation to isolation but not necessarily a pathological isolation-related symptom.

80. As these data make clear, the re-interviewed prisoners from the original 1993 study remain a highly traumatized and distressed population. With only few exceptions, the prevalence of symptoms is comparable or even somewhat higher now than it was for the overall group in 1993. The exceptions involve symptoms for which, if they persisted, prisoners would likely be provided with medical or psychiatric treatment until they subsided (e.g., fainting, hallucinations), or symptoms that are unlikely to become chronic and last for two decades (e.g., a depressed appetite).

81. It is striking to me that, some twenty years later, after what was, for many of these prisoners, a period of uninterrupted isolation, they continue to experience the acute pains of their isolated confinement. They have not reached a psychological "accommodation" with their surroundings, at least not in the sense that they are no longer able to recognize and articulate the specific dimensions of their painful existence. They still feel many symptoms associated with stress and trauma, experience the pathological reactions that isolation brings about and, after all these years, are still quite capable of describing them.

82. As significant as these continued very high levels of specific stress- and trauma-related reactions and isolation-related symptoms are, I also found evidence of much deeper and in many ways more significant adverse changes in this group of long-term PBSHU prisoners. The deeper psychological changes stem from the fact that these men have been forced to live without any meaningful social contact or interaction for such long periods of time—for some, as I noted, several decades—and this, in turn, has stripped most of them of any

meaningful social relationships of any kind. Some have lost the sense of what a meaningful social relationship, in fact, is. Although they are surrounded by other people, they are profoundly alone.

83. Because the Pelican Bay State Prison is so far from any population center where all but a tiny percent of the prisoners once lived, the geographical location of the SHU contributes to the level of isolation the prisoners experience. The infrequent visits (that must be conducted on a non-contact basis), combined with the absence of meaningful social contact in prison means that the overwhelming majority of prisoners will have essentially no one with whom to socially interact or relate to on a remotely regular or consistent basis. PBSHU prisoners have been forced to try to adjust to this way of being—being alone—in order to survive their prison terms. In by far the greatest number of cases, they have been forced to do so entirely on the basis of their status as reputed prison gang members or associates, rather than because of any other violent or even serious disciplinary infractions.

84. For example, one prisoner (Prisoner A) who had been housed continuously in the PBSHU since 1989 (except for a brief one month period) told me that he had only one visit (in 2004) during that entire 24 year period. He said that although he had not received any CDCR Rules Violation Reports (commonly referred to as "115s") since 1997, he nonetheless remained housed on the "short corridor" with other prisoners whom the CDCR has judged to be gang members. As he put it, "Anything we do as validated gang members is interpreted as continuing evidence of gang activity." When I asked him one of the specific symptom questions having to do with "irrational anger" (i.e., getting any over

insignificant things or for no reason) he answered emphatically "no," and then explained, "I am angry a lot but I know why." He described being depressed all the time, telling me "this is it—it gets to you. [There are] very few signs of hope or things to look forward to." He also told me that he has become withdrawn, discourages people from coming to see him, rarely initiates conversation or contact and "I just don't feel comfortable around people." He also told me that "everyday I struggle with mental survival."

85. Another prisoner (Prisoner B), who had been housed in the PBSHU continuously since June, 1990, told me that he has not had any violent 115s since being housed at the facility and that all of his write-ups have been for relatively minor things like talking in the law library or participating in the recent hunger strike. He said his last social visit from anyone from the outside world occurred about 15 years ago, when his wife came to see him sometime around 1998. He told me that he struggles against "isolation psychosis" and that "I fight against what is happening to me." He analogized the gradual but nonetheless damaging changes that have taken place in him this way: "If they put me in Chernobyl and gave me food and a TV and left me alone it wouldn't mean that the radioactive environment wasn't making me sick."

86. One of the adaptations that he told me he uses to survive in what he regards as the "toxic" SHU environment in which he lives—in addition taking refuge in his writing (which he said he does often)—is to isolate himself even further, despite the conditions of near total isolation to which he is subjected: "I don't even take phone calls from outside. I don't let myself get distracted by outside events. I have to control myself. You can't worry about not hearing from

family or friends. You have to stay distant from them, and not let them distract you with feelings."

87. Another one of the prisoners from this original group (Prisoner C) said: "I keep from getting too close to people because it can lead to depression. I have no intimacy in my life. I don't have a chance to relate to people with closeness. You are only allowed to deal roughly with people. You turn off your feelings. You see things and have to shut off." He also told me: "When I first got here, I trusted people. That's how I was raised. [But] you see how the officers mistreat us—it changes the way you live and look at life. You distrust everyone. The anger also builds up in you. I don't feel comfortable around people anymore."

88. Another prisoner (Prisoner D) who had been in the PBSHU continuously since 1990, and had been in isolated confinement for several years before that, spoke at length about the asociality that had come about as a result of so many years of social deprivation. He described himself as once having been "a people person," but now finds that there are "many times I don't want any part of people. 'Keep quiet and leave me alone'—that's my motto. Don't bother me and I will do the same." He elaborated: "Just leave me alone. I have no wife, no children… leave me to do my time. That's all we <u>can</u> do in here." He was acutely aware of how profoundly he had been changed by the long-term social isolation to which he had been subjected. He told me: "I have not been around people for 28 years. I only knew my family for 18 [before he came to prison]. I don't feel close to them or [to my] homeboys, as messed up as that sounds. Even if they died…" and then his voice trailed off.

89. Some of the prisoners from this original 1993 sample told me in 2013 that they were reluctant to talk about how asocial they had become over the years they had spent in the PBSHU. One prisoner (Prisoner E) said, "I have become anti-social in here. I get irritated when people talk to me or call my name." Then he added, "I was afraid to tell you this because it makes me sound crazy, but I decided just to tell the truth." Another (Prisoner C) said, "it is not easy to come out here and talk about this. There are a lot of guys who are going through these things, but they are embarrassed to say or admit it. There are a lot of guys who feel the stigma, the label of being weak, and it is too much to risk."

90. In summary, this group of men who were members of the original 1993 group of PBSHU prisoners and whom I re-interviewed in 2013 reported that they were still suffering the kind of acute pain and distress that they and members of the larger sample were experiencing some twenty years earlier. That pain and distress was manifested in the many specific symptoms that they reported suffering as well as the socially pathological adaptations to isolation that they had been forced to adopt over the last several decades.

91. Perhaps because of the high levels of tension that pervade this environment, and the corresponding hypervigilance that prisoners in isolation continue to maintain, and perhaps because the level of deprivation is so severe, these prisoners had really not "gotten used to" the stress of this kind of confinement, despite the long period of time they had spent in the SHU. And, perhaps because they had so few if any meaningful activities to serve as distractions from their pain, and so few if any meaningful social contacts from which to derive nurturing support, they remained acutely aware of the deep

losses they continued to suffer along the way—their withering connections to family, friends, and others, and their increasing inability to function as social beings. They understood the "social death" to which they were being subjected and it pained them.[72]

2) Non-Randomly Selected Sample

92. Included among the group of Plaintiff class members whom I interviewed in January, 2014, was a group of eight (8) prisoners who had been selected in advance by the attorneys (in contrast to the rest of the interviewees who were randomly selected). I did not know the status of these prisoners in advance, but interviewed them along with the others, who were part of the randomly selected group.

93. When I subsequently received the information that allowed me to distinguish the non-randomized from the randomly selected interviewees, I disaggregated the groups and calculated the results from their interviews separately. Thus, the quantitative data from the non-randomized class members have been kept <u>separate</u> from those of the randomly selected group; they are ***<u>not</u>*** included in the comparisons between the randomly selected 2014 and 1993 SHU

[72] The term "social death" is used here to denote the extreme nature, magnitude, and duration of the isolation to which the Plaintiff class members have been subjected. Isolation from others this total and complete, and this punitively enforced, does not exist anywhere else in modern society. [For example, see the discussion by Harvard sociologist, Orlando Patterson, in Slavery and Social Death: A Comparative Study. Cambridge: Harvard University Press (1982).] For this reason, the long-term isolation at PBSHU is much more extreme than what researchers typically mean when they refer to "social exclusion" and "loneliness" (for example, in the research cited at footnotes 17, 39, 40-43, 45 *supra*, as well as footnote 77 *infra*) and, for this reason as well, its effects are more severe than those studied in these other, less extreme contexts.

samples nor the comparisons between the 2014 SHU and GP samples that I will report on and discuss later.

94. The eight (8) prisoners non-randomly selected for interviews were not significantly different in terms of their levels of distress as compared to the larger randomly selected group. They reported somewhat higher prevalence rates for some symptoms and somewhat lower ones for others.[73] The results for this group of interviewees are shown in Table 2 below.

Table 2: PSYCHOLOGICAL SYMPTOMS AMONG NON-RANDOMLY SELECTED SAMPLE OF 2014 PBSHU PRISONERS

Symptoms of Psychological Stress and Trauma	
Anxiety, Nervousness	88%
Headaches	75%
Lethargy, Chronic Tiredness	88%
Trouble Sleeping	88%
Impending Breakdown	75%
Perspiring Hands	50%
Heart Palpitations	75%
Loss of Appetite	25%
Dizziness	75%
Nightmares	62%
Hands Trembling	63%
Tingling Sensation*	25%
Fainting	0%

[73] The sample did include two prisoners whose situations were somewhat different from others I interviewed, including one who had made several trips to the Psychiatric Services Unit (PSU) over the preceding several years, and another who was scheduled to be released from CDCR custody within several months of my interview. They are discussed separately and in passing below.

Psychopathological Effects of Prolonged Isolation

Ruminations	63%
Irrational Anger	75%
Oversensitivity to Stimuli	75%
Confused Thinking	75%
Social Withdrawal	88%
Chronic Depression	63%
Emotional Flatness	63%
Mood Swings	88%
Overall Deterioration	88%
Talking to Self**	50%
Violent Fantasies	13%
Perceptual Distortions	25%
Hallucinations	0%
Suicidal Thoughts	0%

N=8

*Not necessarily a symptom of psychological stress or trauma. Included as a "control question" to provide a baseline against which to measure the significance of the trauma-related responses.

** An adaptation to isolation but not necessarily a pathological isolation-related symptom.

95. I also noted that, in comparing this sample of prisoners to the randomly selected group (discussed below), that the non-randomly selected prisoners seemed to have slightly more stress- and trauma-related symptoms, and slightly fewer isolation-related symptoms (although neither difference was statistically significant). This may have stemmed from the fact that although the non-randomly selected prisoners were reacting slightly more to the immediate stressors in their environment, they were still capable of reaching out and making contact with the attorneys to voice some of their concerns. On the other hand, the randomly-selected prisoners, discussed below, were suffering somewhat more seriously from the isolation-related pathologies. Their suffering became apparent

only after they were randomly selected and questioned during my interviews. These prisoners were more likely to be suffering silently, and in ways that would not necessarily have been obvious to anyone who did not proactively inquire.

3) Randomly Selected Sample

96. As was the case with the sample of seven (7) prisoners from the original 1993 sample (discussed in paragraphs 73-91 above), and the group of eight (8) prisoners I interviewed who had been selected by Plaintiffs' attorneys (discussed in paragraphs 92-95 above), I found that the larger group of forty-one (41) randomly selected PBSHU prisoners whom I interviewed were also suffering greatly. They were suffering at levels comparable to those found in prisoners who were confined in the same institution more than 20 years ago, when I first studied it. Again, I believe that this fact in itself is remarkable. It indicates that, even after 10 years or more in isolation, they had not acclimated fully to it but rather continued to suffer a host of painful, problematic, and potentially damaging psychological symptoms.

97. In addition, as I will discuss in some detail below, the experience had done something else to them that was not readily apparent in the case of the 1993 prisoners who, by definition had been in the PBSHU for "only" a few years. The *Ashker* class members had been subjected to a form of "social death" as a result of their long-term isolation. It consists of the near total the loss of meaningful contact, connections, and relationships with other human beings. The depth and dimensions of this loss were apparent to them and they were suffering as a result of it. They had also been transformed by it. They were, in a very real sense, different people because of it, people who had lost something not just in

the world but in themselves. Although they seemed resigned to never getting it back, they were deeply pained by this realization.

98. The suffering of these prisoners takes several forms, including the high prevalence of indices of psychological stress and trauma as well as a range of isolation-related symptoms. In addition, the suffering and adverse effects are manifested in descriptions of the prisoners' subjective states of mind, brought about in response to their extraordinarily long periods of isolated confinement. The inevitable adaptations that they have been forced to make to this socially pathological environment have produced their own problematic consequences without alleviating much if any of these prisoners' ongoing psychological pain.

99. As I noted, these latter conclusions are based on the interviews that I conducted with a representative sample of 41 *Ashker* class members, selected at random (to ensure representativeness) from a roster of PBSHU prisoners whom CDCR indicated had been confined in the facility for 10 or more years. The interviews took place in two different locations—some in one of the D Facility SHU boardrooms and some in the SHU visiting area, in January and December, 2014. As I noted earlier, I conducted a structured interview with each randomly selected PBSHU prisoner, collecting demographic information, estimated prison sentence and time in prison (including time spent in Ad Seg and/or SHU, at Pelican Bay or elsewhere), a brief account of the prisoner's social and institutional history, and whether or not the prisoner had been bothered in the last three months by any of a number of very specific psychological symptoms or reactions (and, if so, how often). The specific questions consisted of a 27-items that yielded 25 indices of psychological stress or trauma as well as adverse

isolation-related pathological reactions that have been reported in the literature.[74]

a) Prevalence of Reported Stress/Trauma-Related Symptoms and Isolation-Related Pathology

100. The representative sample of members of the *Ashker* Plaintiffs—prisoners who had served 10 years or more in the PBSHU—reported suffering very high rates of symptoms and indices of pathological reactions, both those associated with the experience of severe stress and trauma as well as those that have been described in the literature as having been caused by the experience of extreme isolation. The present sample suffered these symptoms at prevalence rates that were very similar to the overall rates reported by the 100 PBSHU prisoners who were interviewed in 1993 in conjunction with *Madrid*.

101. Not only are the actual prevalence levels of reported symptoms very similar overall, but the patterns of specific prevalence levels (i.e., ones reported by a very high percentage of prisoners versus ones very infrequently reported) are also very consistent between the two samples.

102. As these data make clear, the re-interviewed prisoners from the original 1993 study remain a highly traumatized and distressed population. With only few exceptions, the prevalence of symptoms is comparable or even somewhat higher now than it was for the overall group in 1993. The exceptions involve symptoms for which, if they persisted for years, prisoners would likely have been provided medical treatment (e.g., headaches, fainting), or ones that

[74] Note that, as I have indicated, two items from the full 27 item list do not necessarily indicate a stress-related reaction (in the case of the "tingling sensation" symptom) or a pathological adjustment to isolation (in the case of "talking to self"). These items have *not* been included in any of the calculations or comparisons involving overall levels of suffering and distress.

would be unlikely to endure for a decade or more (e.g., depressed appetite, fantasizing violent revenge, or suicidality).

Table 3: PSYCHOLOGICAL SYMPTOMS AMONG PBSHU PRISONERS, 2014 vs. 1993 REPRESENTATIVE SAMPLES

Symptoms of Psychological Stress and Trauma

	2014	1993
Anxiety, Nervousness	83%	[91%]
Headaches	71%	[88%]
Lethargy, Chronic Tiredness	90%	[84%]
Trouble Sleeping	81%	[84%]
Impending Breakdown	63%	[70%]
Perspiring Hands	51%	[68%]
Heart Palpitations	68%	[68%]
Loss of Appetite	30%	[63%]
Dizziness	76%	[56%]
Nightmares	30%	[55%]
Hands Trembling	42%	[51%]
Tingling Sensation*	20%	[19%]
Fainting	2%	[17%]
	2014: N=41	1993: N=100

Psychopathological Effects of Prolonged Isolation

	2014	1993
Ruminations	83%	[88%]
Irrational Anger	88%	[88%]
Oversensitivity to Stimuli	90%	[86%]
Confused Thinking	98%	[84%]
Social Withdrawal	88%	[83%]
Chronic Depression	73%	[77%]
Emotional Flatness	78%	[73%]
Mood Swings	68%	[71%]
Overall Deterioration	83%	[67%]
Talking to Self**	66%	[63%]
Violent Fantasies	37%	[61%]
Perceptual Distortions	20%	[44%]
Hallucinations	37%	[41%]
Suicidal Thoughts	2%	[27%]
	2014: N=41	1993: N=100

*Not necessarily a symptom of psychological stress or trauma. Included as a "control question" to provide a baseline against which to gauge the trauma-related responses.

** An adaptation to isolation but not necessarily a pathological isolation-related symptom.

103. To put these findings in context, it is important to recall the nature of the PBSHU at the time of the *Madrid* litigation and, as I alluded to earlier, at the time the data were collected in my 1993 study. I believe it is fair to say that the PBSHU in 1993 was still very much in turmoil. There was still a significant number of mentally ill prisoners housed in the SHU, and their presence in the housing pods was highly disruptive to other prisoners. Some number of those mentally ill prisoners were undoubtedly represented in my randomly drawn sample and, if so, their responses would have at least modestly elevated some of the results (at least in comparison to the 2014 sample, from which mentally ill prisoners presumably had been excluded). Finally, the PBSHU was still, in many respects, a contentious "battleground" between prisoners and correctional staff. The staff's ongoing use of excessive force became a matter of record in the course of the *Madrid* trial and Judge Henderson's opinion in the case addressed it at length. Many of the participants in the 1993 study were very focused on these conflicts and the correspondingly frequent "cell extractions" that were occurring throughout the PBSHU. The prisoners I interviewed then voiced quite a bit anger and fear that they felt as a result of these contentious, physically violent encounters which, in turn, had put the prisoners under a great deal of immediate or acute stress.

104. Yet, remarkably in my opinion, the current long-term PBSHU prisoners are similarly traumatized, and in pain and distress. They have not reached an accommodation or equilibrium over the many years that they have been kept in isolation. Although they are "long-term" SHU prisoners, they look very much like the acutely traumatized group of prisoners whom I studied in

1993, when the prisoners at the facility were in shock over the way they were being treated, and very much in open, daily conflict with the correctional staff. On virtually every specifically measurable dimension, they are suffering nearly as much, the same, or worse, than the earlier group. Moreover, unlike this original group, who were housed under these conditions for no more than 3 or so years at the time they were assessed, the Plaintiff class members have endured this extreme form of isolated confinement for a decade or more—in many instances, much more. At the time I interviewed them, many of them held little or no hope that they would ever be free of it. Their suffering and symptomatology had changed from being "acute" to "chronic." The prisoners' painful existence had become a way of being, and their extreme adaptations to it had become part of them.

b) Isolation-Related Suffering and Syndromes

105. Just as with the smaller sample of prisoners whom I re-interviewed from the original 1993 sample, the larger group of PBSHU interviewees described attempts to survive their socially pathological conditions of confinement in ways that were both painful and problematic. The challenges they faced in order to survive the experience and the psychological changes that they acknowledged taking place in themselves were in many ways broader and deeper than the specific indices of trauma and other symptoms that they reported to me.

i) The Ongoing Struggle to Maintain Sanity

106. Although mentally ill prisoners are prohibited by the *Madrid* exclusion order from being housed at the PBSHU, many prisoners reported that

they were nonetheless engaged in a constant, ongoing struggle to maintain their sanity. For example, [redacted] prisoner (Prisoner F) who had been in the prison system continuously since he was a teenager and had been housed in the Pelican Bay SHU for nearly 24 years told me, "You struggle to hold on to your sanity, you feel it slipping away." He told me that his coping mechanism involves rigidly maintaining a daily program or regimen from which you "never deviate." Similarly, another prisoner (Prisoner G) told me that "every day is social, mental, physical pain and you are always on the verge of succumbing to it." He said he believed people in the SHU were "losing their sanity" and that "we have so little input, variation, it wears you down…"

107. [redacted] (Prisoner E) who had been at the PBSHU for approximately 12 years told me that, "from the start, [it was] very, very difficult" to live in isolation because "you don't know what's happening to you." He also said that the feeling never really left him: "To this day, it's a struggle to fight and reverse the damage." [redacted] (Prisoner I), [redacted] who had been in the PBSHU for about 14 years, said: "It is not easy. Frustration, anger, resentment. You are harassed 24/7. [You] survive by trying hard to be human, as much as you can. It's rough, and the longer you are here the harder it is. It festers in your mind."

108. [redacted] (Prisoner J) who had been in the PBSHU continuously for nearly 14 years, told me that "in here, the 'good' things are all material—a package or canteen—nothing psychological or spiritual." He also said that he had fought to get a visit but, "when I finally got it and they came, I didn't want to go." He told me that: "Isolation never stops fighting with your

mind, in an everyday struggle or battle [that] you have to fight through. I draw and I read, escaping in any way I can. Watch TV sometimes, work out in the morning to relieve anger and stress. But it's 'Groundhog Day'—start over the next day, which is the same over again. You fight every day not to lose your sanity." He said that one of the worst things "is not being able to have opportunities or to get help. For example, with education. We have no release in here, nothing to get involved in. We are surrounded by a wall in here. That bottles us up inside, a constant struggle spiritually and mentally."

109. [redacted] (Prisoner K) told me he had come into the prison system while still in his teens, and had spent most of his 19 years in prison in isolated confinement, including the last approximately 16 years housed continuously in the PBSHU. He said, "I grew up in here. It's all I know. I have nothing to compare it to. It's like time broke… I watch people lose it. I say, 'I don't want to be like that.' [It's] a constant struggle to stay sane… The hardest thing about this place is maintaining control of yourself against the pressure… You are trying to control chaos in a controlled space."

110. But he had spent so much time spent in isolation that the experience had taken a toll, one that he clearly recognized: "I'm barely able to associate. I don't relate to my family. I don't understand the world. I don't remember what my house looked like, what my sister looks like. I am completely uncomfortable in the social world." And he has learned to keep his feelings hidden deep inside: "I feel I'm doing good when nobody knows what I'm thinking."

111. [redacted] (Prisoner L) told me [redacted] that he has been in prison from the age of 20 until now, serving time on his first and only adult conviction. He told me that the last 14 of his 23 years in prison have been spent in the PBSHU, and that during that time he has had very few visits from the outside world. He told me he has had very few write ups, none of them for violent offenses. He has tried hard to adjust but constantly struggles. He said: "The more time I'm here, the angrier I get. It isn't good for the brain… I feel like a caged animal… I worry about losing my mind, ask, 'am I losing it?' It bothers me—every day I am waiting to hear from somebody and it never comes."

112. [redacted] (Prisoner M) said "I think all the guys back here are going crazy and don't want to admit it. We don't talk about it because we are isolated in little boxes, and can't hold a real conversation without other people hearing it."

113. I did interview one prisoner (Prisoner N) who initially reported to me that he had suffered very few other stress- and isolation-related symptoms—in fact, among the fewest of any of the prisoners whom I interviewed. However, his few reported symptoms did not mean that he was not struggling in a very serious way to maintain his mental health throughout his long period of isolation. He very earnestly told me that he believed that he was the victim of a diabolical plot by correctional officers, something he said he first heard them talking about—in a code that he could not quite understand—several years ago. He said that he finally determined what they were referring to—the fact that prison officials were directing some kind of an electrical "energy force" at him and other

prisoners. The energy force or wave had very powerful effect on his mind—"it made me confused and disrupted me."

114. He told me that there were times when he felt he might not be able to tolerate this torment, and he eventually informed his family about what was happening to him. (In fact, his mother has been in contact with me and sent me information both about a civil rights case that her son filed over this and other issues and also included some information that he was able to acquire about some kind of military weapon that used some form of electronic or radio waves similar to the ones he believed the PBSHU staff was using against him.) He told me that other prisoners also had experienced some of these same effects but that he was the only one to have "figured it out." In addition, he said that a prison mental health staff member [redacted] knew what the COs were doing to the prisoners with these electronic waves or forces and that he knowingly acquiesced in it.

115. At one point, apparently because he voiced his concerns about this openly to staff, or made a paranoid-sounding reference to them in a CDCR grievance form (commonly known as a "602") that he filed, he was forcibly removed from his cell and taken involuntarily to the PSU for a mental health evaluation. After a brief stay there, he said, he was given a clean bill of mental health and returned to SHU, where he continued to be housed.[75] He explicitly

[75] I reviewed documents that Prisoner N's mother sent me at his request. They indicated that he had been admitted to the PSU on three separate occasions, including once several months after I saw him in April, 2014. [redacted]

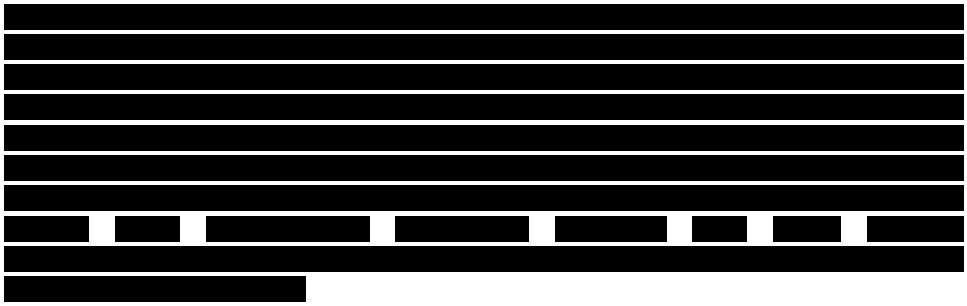
[redacted]

told me that he did not want to be labeled "crazy" because these waves were "real," but he also explicitly said that wanted to make sure that I included a description of these events and his concerns in my report. He re-iterated this when I saw him cell-front in April, 2014, during my tour of the institution.

116. In short, in addition to the high prevalence of specific symptoms from which this representative sample of prisoners who were subjected to prolonged isolation in the PBSHU reported suffering, many prisoners acknowledged an ongoing, constant struggle to remain mentally stable, a struggle in which many felt their very sanity was at stake. These prisoners certainly have not accommodated to the extraordinary level of social and other forms of deprivation that they have suffered for a decade or more, nor have they ceased to feel the mental pain that comes from being confined in this way.

ii) Problematic Adaptations to Prolonged Isolation and Long-Term Dysfunction

117. Just as with the initial sample of seven prisoners whom I had interviewed in 1993 and re-interviewed in 2013, many of the prisoners in the randomly selected group reported that they had struggled to "get used to" the long-term isolation to which they were being subjected. They, too, realized that



This document indicated that Prisoner N was to be retained on the mental health caseload at the CCCMS level of care, and therefore (as of July, 2014) was excluded from the PBSHU.

their tenuous "adjustment" had come at high psychological price. Many prisoners regretfully acknowledged that had lost their ability to interact with or be comfortable around people; they were acutely aware of this loss. As one prisoner (Prisoner O) put it, "I was taught to endure. So I do. But coping is not the same as not being affected or changed." Another (Prisoner P) told me that "the worst part is being surrounded by people but you are alone. The last time I touched a loved one was in 1983. The purpose of this place is to break us. It is like quicksand. You try to climb out and sink further down."

118. The isolation to which prisoners in the PBSHU are subjected is created by the rules, regulations, and architecture of the prison—a regime that prohibits and precludes them from having any meaningful social contact with each other. But the degree of isolation is not limited to that. Earlier I alluded to the geographical location of the prison and the way that its remoteness adds to the overall level of isolation to which PBSHU prisoners are subjected. The prison is located in Crescent City, California, over 700 miles from Los Angeles, the state's largest population center and the geographical area from which the largest number of prisoners come. Family members from the Los Angeles area or farther south must travel a minimum of nearly 13 hours by car (one-way) in order to visit at Pelican Bay. A number of prisoners indicated that the combination of the distance and the cost of such a trip make it prohibitive for many of their families.

119. In addition to the time and expense involved, all visits are conducted on a non-contact basis, which requires visitors to speak through a thick glass barrier or partition and over a telephone. Of course, SHU prisoners are not permitted to touch their visitors during these non-contact visits (and the

glass partition that separates them prevents them from doing so). In addition, except for prisoners in the newly implemented stepdown program, prisoners are prohibited even from making phone calls.[76] This prohibition has been in operation since the time the PBSHU first opened. It means that *Ashker* class members who do not receive visits have not heard the voices of loved ones or friends for a decade or more.

120. One prisoner (Prisoner Q) said that he has been prevented from even writing to his family, and so has lost all contact with them. He said: "CDCR won't let me write to my daughter because I am a gang member. I haven't been allowed to write her. In the beginning of 2012, they stopped my mail. I've lost all communication with everybody. Whenever people would write me, they [CDCR] would say it was 'coded'—even though they couldn't tell you what it means. 'You are under investigation' supersedes everything. The last time I had a visit was in 2002. My daughter was 6 or 7 years old… She reached out to me, to write me, but the prison put a stop to [it]. I have no relationship with people on the outside, nobody to write."

121. [redacted] (Prisoner R) told me he entered prison approximately 22 years ago on his first and only adult conviction. He has spent most of his time since then in isolation, including about 20 years continuously in the PBSHU. Over that two-decade period, he said that he has had only one visit, which occurred in 2010, when his now-grown children came to see him. He told me that he tries to write to them as much as possible, to stay close,

[76] It is my understanding that prisoners in Step 1 of this program may receive a short, non-emergency phone call after six months and receive a second short phone call upon transition to Step 2.

but that it is hard: “What do you say? You live the same life over and over.” He also told me: “I put my kids’ pictures facing the TV and I talk to them, as if we were watching the game together. ‘Hey, did you see that?’ Maybe I’m crazy, but it makes me feel like I’m with them. Maybe someday I’ll get to hug them.” He told me that the last time he touched them—or anybody (other than when being put in mechanical restraints)—was 1993.

122. I interviewed a number of PBSHU prisoners with children whom they rarely if ever see, and grandchildren whom they have never seen. [redacted] told me, “My son is almost an adult. I haven’t seen him for years or heard his voice or him mine.” Another (Prisoner T) had a 7 year old daughter when he entered prison 20 years ago. She has since grown up, gotten married, and had children but he has not seen her or had a visit from anyone else over that period of time.

123. This near total isolation these men have from one another, and from the outside world, means that they have had to adjust to living in a state of being profoundly alone, a state that has lasted for them for a decade or more. The experience has changed them in number of fundamental ways. Among other things, their social skills have atrophied in the absence of any meaningful opportunity to use them, and they have lost the capacity for deep positive emotions or to feel human connections.

124. Indeed, there is a profound sadness to most of the men I interviewed in the PBSHU, a somberness and joylessness about them. It is almost as though they are grieving. Many of them seem to be grieving the relationships to family members and loved ones that they once had and now have lost, ones

that they sense will never be recaptured or recreated. In other instances, the grief seems more generalized, as if they are grieving for a social self, a sense of who they once were, that they know is unlikely ever to be regained. In either case, they have experienced a form of "social death," and they are grief-stricken over what has been lost or taken from them.

125. In addition, the PBSHU prisoners describe their lives in ways that indicate that they are not just "alienated" but alien, not of this social world. Many of them are resigned to it. They say, "I've gotten used to it, I can tolerate it," but not with a sense of bravado or triumph, rather more a sense of resignation or defeat.

126. [redacted] (Prisoner U) who had been in PBSHU continuously for over 20 years told me that he had grown old there and that a lot of the feelings he once had he no longer felt. He said he mostly just stays by himself, not even bothering to go to the yard most of the time in part because, as he said, "There is nothing in the yard. I can't use the pull up bar. I'm too old and infirm." He told me he was scheduled to get out in the coming summer and was uncertain about how he would do. "If you put a parakeet in a cage for years and you take it out it will die. So I stay in my cage." Many other prisoners told me that they too self-isolated as a way of coping with their otherwise infrequent contact with others and deteriorating social skills. One (Prisoner Q) said "sometimes I go for days without speaking with anybody. [It's] less trouble."

127. [redacted] (Prisoner V) who had come to prison nearly 40 years ago, as a teenager, and had spent most of that time in isolation (including about 24 years in the PBSHU—"I am one of about 70 who came when

it opened and who are still here"), said that he has very few write-ups (115s) of any kind at PBSHU. He told me he had received an infraction for "talking in the library" (which he said was dismissed), one for the hunger strike that he participated in, and another for possession of reading material that included writing by George Jackson. He has had no visits from the outside—"you are my first visitor," he said—and talked about the isolation: "This place affects you socially. You don't know how to relate to people…."

128. [redacted] who had only one visit in his nearly 20 consecutive years in the PBSHU told me, "You get really anxious going anywhere—even coming here [to be interviewed]. You don't leave the section much, so it's scary when you do." It the end of his interview with me he told me our one hour or so conversation was "the most I've talked in years."

129. [redacted] (Prisoner X) who had been in the PBSHU for nearly half his life—20 continuous years—said that during that time he had no more than a handful of visits, and none from his family. He told me, "I think about how scary it would be to be around people, be close to them." He acknowledged that although "the anger and resentment is still there, it is not as intense as it once was." He said, "you are so used to being back here, you adjust to it. This is your life." But then he said, "I wouldn't even know how to program on the mainline. I'm so used to it here."

130. The social death that the PBSHU prisoners have undergone has created a sense in many of them of what might be called "ontological insecurity"—profound concerns about whether or not they really "exist" and have "being" in the world. This may seem like an extreme assertion, but realize that

these are men whose families and friends—the persons who helped shape their identities and to whom those identities were most closely tied before coming to prison—not only may have not interacted with them for years (or decades) but not even seen them, and not even heard their voices over the same time period. If the people "closest" to you throughout your life have not seen you, and have not heard your voice, nor you theirs, do you really exist?

131. Indeed, some PBSHU prisoners described the unsettling experience of being escorted out of their housing pod by a counselor to get a painful bereavement call—for years, these were only kind of phone calls they were allowed to make or receive—only to discover that they did not know who they were talking to, or that no one at the other end of the line could recognize their voice or believe it was really them, it had been so many years since they had heard each other's voices. For those who had gone into prison and into SHU as teenagers or very young men, their voices had changed over the course of the decade or more that had passed since anyone in the outside world had spoken to them. They had grown up and grown old, isolated from the world and from their family, and they now had an older man's voice that no one in their family could recognize or associate with them.

132. For example, [redacted] (Prisoner V) I referred to earlier told me: "I got a 15 minute phone call when my father died. I realized I have family I don't really know anymore, or even their voices. You haven't talked to your mother, she is like a stranger, you don't recognize each other on [the] phone." He felt bad that he had not been able to grant one of his father's last wishes: "My dad wrote asking for a picture when he was dying. I couldn't send

one." He added: "All relationships are based on reciprocity and you can't reciprocate in here." He said, "This is an artificial life, it is not real in here," and likened the SHU to "a laboratory, like a weapons lab or a place for human experiments."

133. I believe that the eroding sense of existence and the fear of complete social death among PBSHU prisoners is one of the reasons that the issue of not only access to telephone calls but also being able to take and send photographs is so significant to them. Photographs are a way of establishing existence, fixing ourselves in time and space. At the same time, however, many of these men knew that the photographs they could now share would establish them, in a sense, as someone else. One prisoner (Prisoner O) explained that the hunger strike-related concession of being able to take photographs was important, but that a number of prisoners were anxious about it as well. "Guys haven't had photos [of themselves] for 24 years. Their families haven't seen them in that time. But some people don't want to take a picture—it would shock the family members and they are embarrassed at how they look. Your family notices changes in you—you don't notice. You are just trying to survive, it is what you have to do."

134. [redacted] (Prisoner Y) was very articulate about the depersonalization that occurs when people are isolated from others for so long a time. He told me: "I walk into visits—I see my mother, and I know she's my mother, but I haven't touched her for years, and the feeling isn't the same. I haven't hugged her, I feel distant. You feel things but they don't last or feel as deep or full. My grandmother died and I felt bad, but I didn't shed a tear." He told

me later in the interview: “I have brothers I haven’t seen for 22 years. I know I have them but the feeling I have is different now. I have no real relationship to or with them.”

135. One prisoner (Prisoner Z) observed that “just because people don’t act broken in here doesn’t mean they aren’t.” He became emotional when I asked him how he had managed to survive. He answered by saying: “I don’t know how I survived. Faith, maybe. As long as you have faith there might be a chance…” and then he began to cry. He said he had not cried for decades and that my asking him about himself had “touched a nerve.” He told me he had not had a visit in 19 years and, of course, had been denied phone calls for the entire time he was in PBSHU (nearly 20 years). Referring to his family he said, “As the years have gone by, you are out of sight, out of mind.” He said his letters to loved ones had dwindled, so that he was down to letters from his father and daughter, about once a month. Otherwise, he has no current contact with the outside world and has not since 1995.

136. [redacted] (Prisoner AA) who told me that he was placed in PBSHU over 20 years ago, said that he had been kept there on the basis of an erroneous classification as a gang member. He complained about how he had been badly deteriorating mentally and physically over years. He said that he “came in a strong young dude and now I am a sick old guy.” He also told me that he was a lot more bitter than he used to be and became emotional when he told me “I don’t trust people anymore.” He, too, acknowledged being “afraid when people are physically close.”

137. [redacted] (Prisoner BB) told me that he had spent approximately 27 years in prison, including two separate terms in the PBSHU (the last one of which has lasted for 12 continuous years). He could remember only a single 115 that he has had—when his name appeared in what was supposedly a gang-related letter in 2005—but he nonetheless has been retained in SHU for more than a decade, and not yet been seen by the DRB for a stepdown review. He acknowledged having a very difficult time in SHU: "It is traumatic to do this much isolation. On the outside we can smile, on the inside we hurt. Deep inside, we are in pain."

138. This prisoner told me about a specific event that he said continues to bother him. About two years ago, when the prisoners at the PBSHU were given a chance to take their first photos to send home, he took one to send to his father, who was dying. But he believes that the COs at the prison failed to mail the photo, because his father never received it before he passed away. He said, "It would have been the only picture he ever saw of me before he died, but he never got it. Imagine that, my family didn't even know what I looked like." He said the worst thing about being at the PBSHU is the "lack of contact with outside world… not being able to call, lack of family affection, not being able to hug or touch people."

139. Another prisoner (Prisoner CC) told me that he had become "desensitized" and was losing the ability to feel. He said that when his grandparents passed away "I had no feelings or emotions" and that "I have a hard time telling my kids and my mother that I love them—it is so at odds with how I live." When I asked him to describe life in the PBSHU, he said: "Isolation, frustration, separated from family, can't communicate with anyone freely, even to

your parents—you say the wrong thing and you get a 115—getting harassed by staff, have your cell torn up, property destroyed." He said that when he was arrested, his children were about a year and a half old and "I've seen them through glass, growing up."

140. One older [redacted] (Prisoner DD) who had been housed in PBSHU off and on since it opened, and continuously since 1997, told me about being taken out of the prison only once, to go to the hospital, and being overwhelmed by the stimulation. He said that he could not handle the sights, sounds and smells of the outside world, and was unable to stand on his own. He actually became sick and vomited. He said this happened to him several times until he got accustomed to the sensory overload. He also told me that he had not gotten any visits for 15 or more years. He said "I get letters and pictures but no visits for 15 years. Phone calls only when people die. I haven't heard anyone's voice for years and years—since '97. I haven't touched them of course."

141. An older [redacted] (Prisoner EE) who had been at PBSHU continuously for nearly 20 years told me that on the rare occasions when he accidentally touches someone, "it freaks me out—touch."

142. One of the few prisoners with an actual release date (Prisoner FF) [redacted]. He had been in isolation in various prisons for over 25 years, including two separate stints in PBSHU that amounted to 20 years in total there. As he put it: "This place makes you anti-social. You get used to being by yourself. You beat yourself up if you can't get used to it. But you draw away from people. You become content being alone, thinking about being around people. What will it be like." Another prisoner (Prisoner T), who had not

had a visit or a cellmate in the 20 years he had been in prison, told me that he avoids social interaction because "that way I won't bring my troubles to other people." Shunning social contact he said "is a daily thing." He also said, "It is hard to connect even with the outside world. They don't understand the world you are living in in here."

143. One (Prisoner E) said: "they say the mind is a terrible thing to waste. I think a mind is a terrible thing to have alone. You just have your thoughts in your head, to go over and over, and the repetition is deadening. The things we read in books, the ideas we learn, we can't use them."

144. Remarkably, several prisoners reported that they experienced stronger emotional connections to their televisions—responding with unexpectedly strong feelings and even tears to television dramas—than to the plight of people around them or to tragedies that befell their own families. This, too, underscores the social death to which they have been subjected. In fact, because of the extraordinary conditions under which they have been kept for the last decade or more, these prisoners *do* actually have more meaningful "interaction" and "social engagement" with their television sets and the fictional characters displayed on them—however vicarious and virtual and "unreal"—than with other actual human beings (with whom their contact is sporadic, superficial, and constrained, under the very limited circumstances when it can take place at all).

B. Comparisons to the Pelican Bay General Population

145. During the week of December 15, 2014, I was able to conduct a series of confidential, structured interviews with a random sample of twenty five (25) mainline prisoners who had been incarcerated for at least ten (10) continuous years and who were presently housed in the Pelican Bay general population (PBGP") Level IV housing facility. They were selected on that basis to be as comparable as possible to the PBSHU prisoners whom I interviewed except that, instead of being housed now and for the last ten years in the PBSHU, they spent at least the last ten years in prison in CDCR and are currently housed in PBGP.

146. It is important to note that are several ways in which a comparison of these prisoners with the Plaintiff class members represents a very stringent test of the effects of long-term PBSHU confinement. For one, the conditions of confinement in the PBGP are themselves truly severe, roughly equivalent to the kind of harsh conditions that exist in some isolation units in other prison systems. For example, all PBGP prisoners are "cell fed" (i.e., they eat all of their meals in their cells rather than in the dining hall), and total amount of "out-of-cell time" afforded the typical PBGP prisoner (virtually all of whom are double-celled) consists of between no more than about 6 hours of yard, an hour of "dayroom" every third day, and possibly a "job" (for those rare prisoners who have one). The jobs that were described to me ranged from working in the kitchen (which requires prisoners to be on the job most days from 4 AM to 9 AM), being a tier tender (which can mean as little as a half hour a day out-of-cell

time), and working as a barber (which consists a few hours one day a week). A very few PBGP prisoners also described having had the opportunity to take a computer class, which apparently met as a group, in a classroom, for several hours a week. But everyone said this was limited to a very small number of prisoners and that there was a long waiting list to get in.

147. Thus, PBGP prisoners are confined to their cells in their "general population" housing units almost as much as prisoners in the PBSHU, and far more than in most maximum security prisons. The main differences between them and SHU prisoners pertain to several limited but not necessarily unimportant social dimensions. That is, virtually all of the GP prisoners are double celled, they exercise in a group setting in an actual outside prison yard, have access to an evening "day room" time when they can congregate with others outside their cells for an hour several evenings a week, are eligible for some of the scarce jobs available at the facility and for some classes taught in an actual classroom setting, and they are permitted to have contact visits in the prison visiting room. Of course, the GP facility is as geographically remote a location as the SHU, so these prisoners too tend to have relatively few visits.

148. In fact, for PBGP prisoners who do not have a job and are not enrolled in a class—by far the great majority of GP prisoners at Pelican Bay (including the substantial majority of prisoners in my sample)—the main differences in terms of social interaction between them and PBSHU prisoners are relatively modest in number—essentially having cellmates, face-to-face contact with others on the yard and in evening dayroom, access to the telephone, and contact visits. It turns out, however, that these things are quite important

(especially in comparison to the long-term plight of prisoners who have none of them).

149. An additional factor that adds to the stringency of this comparison is that many PBGP prisoners have spent long periods (some, years) confined in one or another CDCR isolation unit, before coming to the mainline prison at Pelican Bay. For some of them, this included having spent time in the PBSHU. Many of PBGP prisoners I interviewed acknowledged the lasting aftereffects of their time in isolation, attributing at least some of their current problems and symptoms to the time they spent in SHU. Although they talked about struggling to overcome these effects once released from isolation, they acknowledged varying degrees of success in doing so. The effects of isolation certainly do not immediately disappear; even GP prisoners were in SHU for "only" a year or two, the discomfort they feel around others is something that can interfere with their current social relations and leave them "lonely" in ways that can approximate the feelings of those still in SHU.

150. Indeed, the PBGP prisoners overall were not at all reticent about voicing their displeasure about their current conditions of confinement. Some complained vehemently. A number of them volunteered that the PBGP was by far "the worst" Level IV prison they had ever been in (and some emphasized that they had been in a number of other Level IV prisons in the CDCR).

151. In short, these prisoners were suffering and in distress. Yet there was absolutely no comparison to the level of suffering and distress reported by the PBSHU prisoners. On nearly every single specific dimension I measured, the

PBSHU sample was in significantly more pain, were more traumatized and stressed, and manifested more isolation-related pathological reactions.

152. There are several ways in which these differences can be described and illustrated. The first is a direct comparison between the two groups in terms of whether or not they were experiencing a particular symptom (irrespective of the symptom's frequency or intensity). Here, of the 25 specific symptoms, the currently isolated PBSHU prisoners were significantly more likely to report experiencing 18 of them, including 11 of the 13 symptoms of isolation-related pathology. These differences are depicted in Table 4 below.

Table 4: PREVALENCE OF PSYCHOLOGICAL SYMPTOMS AMONG REPRESENTATIVE SAMPLES OF PBSHU vs. PBGP PRISONERS

Symptoms of Psychological and Emotional Trauma

	SHU	GP	Chi Square	*p* value
Anxiety, Nervousness	83%	[48%]	8.97	.003
Headaches	71%	[64%]	.324	ns
Lethargy, Chronic Tiredness	90%	[60%]	8,5	.004
Trouble Sleeping	81%	[60%]	3.29	.07
Impending Breakdown	63%	[4%]	22.7	<.001
Perspiring Hands	51%	[32%]	2.3	ns
Heart Palpitations	68%	[32%]	8.25	.004
Loss of Appetite	30%	[12%]	2.8	.09
Dizziness	76%	[32%]	12.2	<.001
Nightmares	30%	[17%]	1.42	ns
Hands Trembling	42%	[12%]	6.83	.01
Tingling Sensation*	20%	[12%]	.63	ns
Fainting	2%	[4%]	.13	ns

PBSHU: N=41, PBGP: N=25

Psychopathological Effects of Prolonged Isolation

	SHU	GP	Chi Square	*p* value
Ruminations	83%	[56%]	5.7	.017
Irrational Anger	88%	[48%]	12.4	<.001
Oversensitivity to Stimuli	90%	[44%]	16.7	<.001
Confused Thinking	98%	[40%]	28.0	<.001
Social Withdrawal	88%	[44%]	14.5	<.001
Chronic Depression	73%	[48%]	4.6	.04
Emotional Flatness	78%	[36%]	11.7	.001
Mood Swings	68%	[32%]	8.3	.004
Overall Deterioration	83%	[44%]	10.9	.001
Talking to Self**	66%	[20%]	13.1	<.001
Violent Fantasies	37%	[20%]	2.0	ns
Perceptual Distortions	20%	[0%]	5.6	.018
Hallucinations	37%	[12%]	4.7	.03
Suicidal Thoughts	2%	[0%]	.62	ns

PBSHU: N=41 PBGP: N=25

*Not necessarily a symptom of psychological stress or trauma. Included as a "control question" to provide a baseline against which to measure the significance of the trauma-related responses.

** An adaptation to isolation but not necessarily a pathological isolation-related symptom.

153. These differences are striking, in part because they so clearly distinguish the psychological state of prisoners housed on a long-term basis in the PBSHU versus those housed in an otherwise harsh PBGP mainline prison environment (but one that nonetheless provides a modicum of social interaction and contact). As I noted, Table 4 indicates that, overall, on 25 specific indices of stress and trauma, and isolation-related psychopathology, the PBSHU group suffered significantly higher prevalence on eighteen (18) of them. As might be expected—given the immediately stressful nature of the mainline PBGP prison environment—the symptoms on which there were no differences between the groups pertained primarily to those that were stress- and trauma-related. However, the SHU prisoners were significantly more likely to suffer fully 11 of the

13 isolation-related symptoms. In fact, the only two specific isolation-related symptoms on which there were no significant differences between the groups were those with very low prevalence rates overall (violent fantasies and reported suicidality).

154. In addition to the comparisons between the two groups on each specific symptom, I calculated the overall mean number of symptoms reported by the PBSHU prisoners versus those in the PBGP—an omnibus number of symptoms each group reported experiencing—as well as calculating the differences between the groups by breaking out the stress and trauma-related symptoms and then, separately, the symptoms specifically associated with the experience of isolation.

155. The PBSHU prisoners reported significantly more symptoms *overall* (*M*=15.30 vs. 7.75, *t*=6.44, df=62, p<.001, Cohen's *D* = 1.65), including significantly more stress and trauma related symptoms (*M*=6.88 vs. 3.58, *t*=5.36**,** **,** df=62**,** p<.001, Cohen's *D* = 1.36), and significantly more isolation-related indices of pathology (*M*=8.44 vs. 4.24, *t*=6.63**,** **,** df=64, p<.001, Cohen's *D* = 1.66). In addition to the highly statistically significant nature of these differences, the orders of magnitude are quite large—nearly twice as many symptoms overall as well as for the two separate categories of symptoms suffered by PBSHU prisoners as opposed to those in GP.

156. A visual illustration of the differences between the two groups in terms of the mean number of symptoms reported (separating stress-related from those specifically associated with isolation) is shown in Figure 1 below.

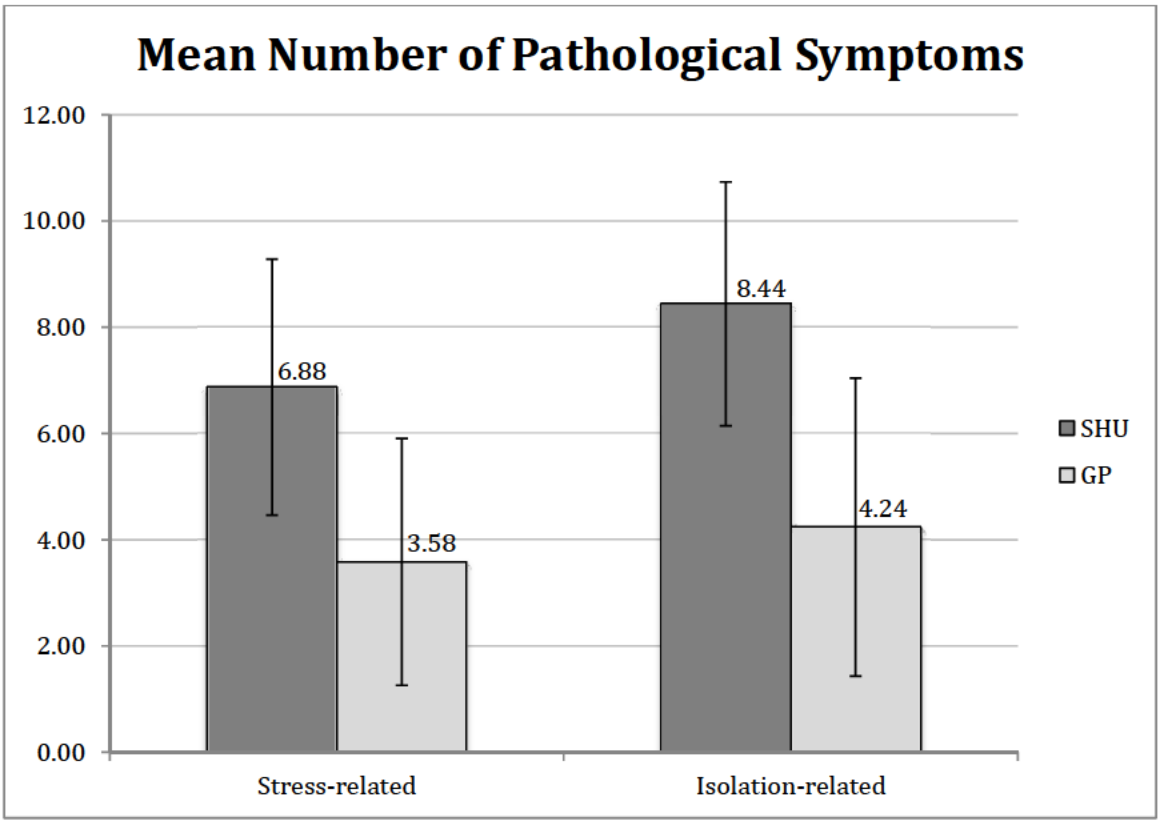


Figure 1: Differences in Mean Number of Symptoms Reported*

***Error bars show the standard deviation of each group's scores.**

157. In addition to a determination of the presence or absence of a symptom, I asked prisoners to estimate the frequency with which they were bothered by these symptoms over approximately the last three month period (as a way of gauging intensity or the degree to which they suffered from the particular symptom or underlying problem). Recall that prisoners who reported suffering from a symptom were asked whether they experienced it rarely, sometimes, often, or constantly (with a corresponding range in scores from 1 to 4).

158. As Table 5 depicts, the PBSHU prisoners not only experienced more symptoms but also experienced them on average with much greater intensely.

Table 5: INTENSITY OF PSYCHOLOGICAL SYMPTOMS AMONG REPRESENTATIVE SAMPLES OF PBSHU vs. PBGP PRISONERS

Symptoms of Psychological and Emotional Trauma

	SHU	GP	*t* test	df^	*p* value
Anxiety, Nervousness	2.49	1.24	3.61	64	.001
Headaches	1.88	1.32	1.59	64	ns
Lethargy, Chronic Tiredness	2.59	1.44	3.68	64	<.001
Trouble Sleeping	2.46	1.52	2.46	64	.017
Impending Breakdown	1.49	.04	7.17	43.21^	<.001
Perspiring Hands	1.32	.68	2.04	59.69^	.045
Heart Palpitations	1.71	.72	3.06	64	.003
Loss of Appetite	.54	.20	1.85	63.76^	.068
Dizziness	1.61	.44	5.08	63.99^	<.001
Nightmares	.54	.21	1.88	62.97^	.064
Hands Trembling	.95	.20	3.4	61.34^	.001
Tingling Sensation*	.27	.24	.167	64	ns
Fainting	.05	.04	.126	64	ns

PBSHU: N=41, PBGP: N=25

Psychopathological Effects of Prolonged Isolation

	SHU	GP	*t* test	df^	*p* value
Ruminations	2.39	1.04	4.37	64	<.001
Irrational Anger	2.37	1.08	4.24	64	<.001
Oversensitivity to Stimuli	2.61	1.16	4.37	40.26^	<.001
Confused Thinking	2.73	1.04	5.69	32.75^	<.001
Social Withdrawal	2.24	1.08	3.59	42.04^	.001
Chronic Depression	1.80	.84	3.36	64	.001
Emotional Flatness	1.93	.64	4.52	64	<.001
Mood Swings	1.66	.56	3.96	62.99^	<.001
Overall Deterioration	2.12	1.00	3.89	64	<.001
Talking to Self**	1.34	.40	3.81	60.59^	<.001
Violent Fantasies	.90	.32	2.29	63.76^	.026
Perceptual Distortions	.27	.00	2.90	40.00^	.006
Hallucinations	.61	.24	1.84	58.77^	.071
Suicidal Thoughts	.02	.00	.778	64	ns

PBSHU: N=41 PBGP: N=25

*Not necessarily a symptom of psychological trauma. Included as a "control question" to provide a baseline against which to measure the significance of the trauma-related responses.

** An adaptation to isolation but not necessarily a pathological isolation-related symptom.

^ For symptom questions where there were unequal variances between the SHU and GP groups, unequal variances *t*-tests were performed, and adjusted degrees of freedom were used for these comparisons.

159. With the exception of headaches (which were reported at reasonably high levels of intensity for both groups), the only symptoms on which there were not significant difference between the SHU and GP prisoners pertained almost exclusively to symptoms that were reported very infrequently by both groups (e.g., fainting, suicidality).

160. The representative sample of prisoners confined in isolation in the PBSHU for 10 years or more reported suffering much greater stress- and trauma-related symptom intensity (M=17.7 vs. 7.79, t=5.7, df=62, p<.001, Cohen's D = 1.53), and much greater intensity of isolation-related pathology (M=21.66 vs. 9.00, t=7.46, df=64, p<.001, Cohen's D = 1.91). For these measures, the mean intensities of the reported symptoms were not only significantly different between the groups but were nearly or more than double for the PBSHU prisoners compared to those prisoners housed in GP.

161. These overall differences are illustrated in Figure 2 below.

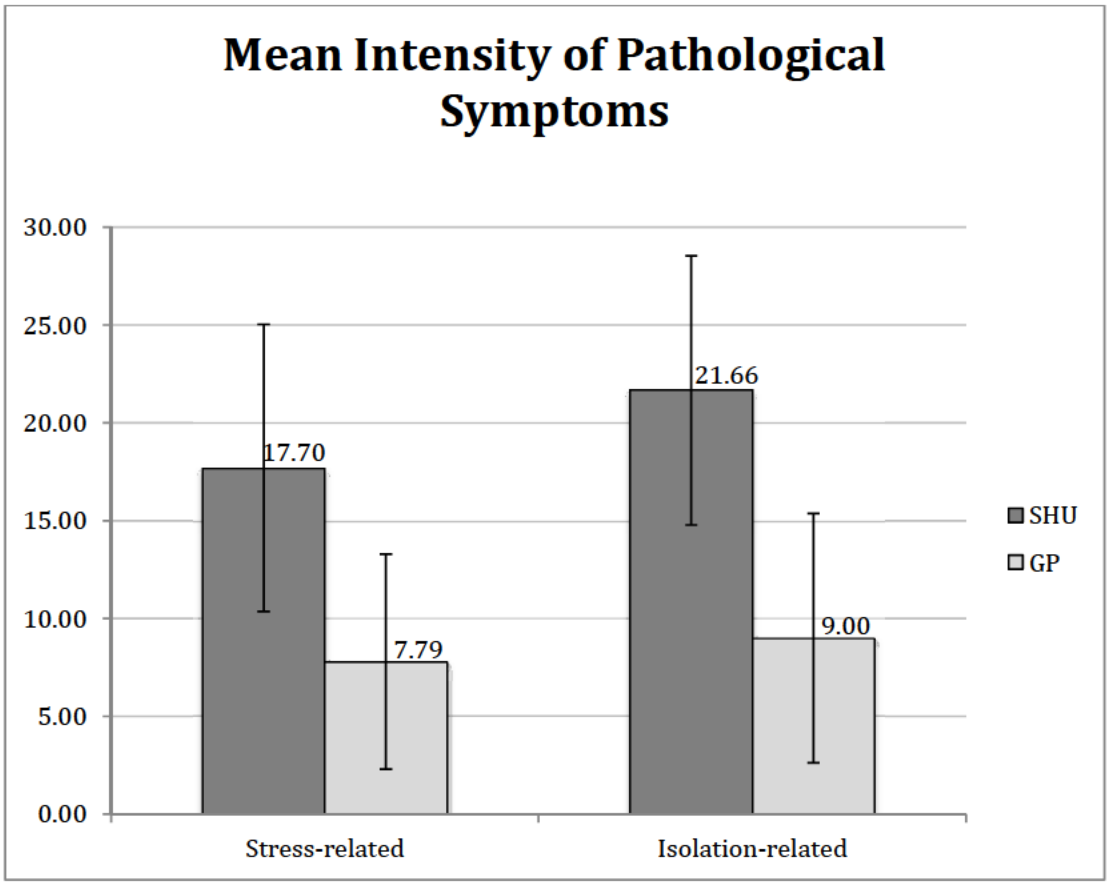


Figure 2: Differences in Mean Intensity of Symptoms Reported*

***Error bars show the standard deviation of each group's scores.**

162. Finally, a sequential multiple linear regression was used to determine whether SHU status explained the difference in the intensity of these isolation-related pathological symptoms beyond that explained by demographic and sentence-related variables. Using the total intensity of isolation symptoms as the dependent variable, several independent variables (age, marital status, total estimated prison time to date, and whether the interviewee was serving a life sentence) were tested as predictors. The multiple regression was conducted in three blocks, first adding in age and marital status as demographic control variables, then adding in whether the participant had a life sentence and the

estimated total amount of prison time served so far, and finally adding in the interviewee's SHU status (SHU or GP) variable. This allows for a determination of the proportion of variance in the dependent measure that is explained by each stage, with a final determination of the additional explanatory power that SHU status provides above and beyond the demographics and other variables.

163. Stage 1 of the regression (using age and dummy-coded marital status as predictors) explained 13% of the variance in intensity of isolation symptoms. Here, age was positively correlated with isolation symptom intensity, but marital status did not add additional power to the model. Next, at stage 2, whether the interviewee was serving a life sentence was added along with the estimated total prison time variable. Here, the model was significantly improved, with an additional 6% of the variance in isolation symptom intensity explained, (adj. R^2 = .186, F-change[2,64] = 3.272, p = .044). After adding these two variables, age was no longer a significant predictor of isolation symptom intensity. Total prison time did not matter either. The only significant predictor of isolation symptom intensity after stage 2 was whether the interviewee had a life sentence, such that participants with a life sentence reported suffering more isolation symptom intensity than those without (t = 2.42, p = .018).

164. Lastly, in stage 3, the interviewees' SHU status was taken into account. It had an extremely large effect, increasing the percentage of variance explained by the model from 18% to 40% (adj. R^2 = .403, F-change[1,63] = 24.287, p < .001). In the final model, SHU status was by far the largest contributor to the intensity of isolation-related symptoms suffered, even when controlling for age, marital status, and estimated total time in prison.

165. In summary, beyond the very significant differences in prevalence rates between these two groups (i.e., the rates at which they report experiencing the individual symptoms or not), the differences between them in symptom intensity are even more striking. Not only do the long-term SHU prisoners experience many more symptoms of psychological stress and trauma and indices of isolation-related pathology than the GP prisoners, but the level or degree of their suffering on these dimensions of psychological pain is far greater.

C. Pathological Levels of Loneliness

166. As I pointed out above, in my discussion of the April, 2013 interviews that I conducted with the seven prisoners whom I originally had interviewed in 1993, "adapting" to long-term PBSHU isolation required prisoners to live for years in the absence of any meaningful social contact. In many instances, the psychological accommodations they were forced to make to the harsh and painful reality of the social deprivation in SHU left prisoners with the feeling that they were losing (or had lost) the capacity to interact with others. Like all skills, this one, too, can atrophy from a lack of use.

167. The same was true for the larger group of long-term isolated PBSHU prisoners whom I interviewed in January and December, 2014. They also reported becoming uncomfortable and anxiety-ridden in the presence of others, especially in circumstances where they were expected to genuinely "interact." For some prisoners, the absence of others, and their increasing discomfort in even minimally social situations, meant that they sought to avoid it, engaging in a form of "self isolation" in response to the already pathological levels of social isolation to which they were subjected.

168. However, even those prisoners who "self isolated" appeared to still acutely feel—and be pained by—the absence of others in their lives. They seemed, in short, to be profoundly lonely, and to continue to be distressed by their loneliness. Over the last several decades, a great deal of psychological research has been devoted to measuring the effects of social isolation and the subjective experience of "loneliness" in a wide range of settings and for people from many different walks of life. We now know that social isolation and loneliness are significantly related to a host of negative psychological and physical outcomes, including a decline in cognitive functioning, poor executive functioning, increased negativity and depression, a heightened sensitivity to social threats, and even increased morbidity and mortality.[77] It is also a subjectively painful experience.

169. To measure and compare the level of loneliness within the samples of PBSHU and PBGP prisoners that I interviewed in January and December, 2014, I administered the Revised UCLA Loneliness Scale,[78] a 20 item measure that is generally regarded as "the standard measure of loneliness" used by social

[77] For example, in addition to the references cited *supra* at note 17, see also: John Cacioppo & Louise Hawkley, *Perceived Social Isolation and Cognition*, Trends in Cognitive Science, 13, 447-454 (2009); John Cacioppo, Louise Hawkley, & Gary Bernston, *The Anatomy of Loneliness*, Current Directions in Psychological Science, 12, 71-74 (2003); Louise Hawkley & John Cacioppo, *Loneliness matters: A Theoretical and Empirical Review of Consequences and Mechanisms*, Annals of Behavioral Medicine, 40, 218-240 (2010); Mary Hughes, Linda Waite, Louise Hawkley, & John Cacioppo, *Measuring Loneliness in Large Surveys: Results From Two Population-Based Studies*, Research on Aging, 26, 655-672 (2004); Greg Norman, Louise Hawkley, Aaron Ball, Gary Berntson, & John Cacioppo, *Perceived Social Isolation Moderates the Relationship Between Early Childhood Trauma and Pulse Pressure in Older Adults*, International Journal of Psychophysiology, 88, 334-338 (2012).

[78] Dan Russell, Letitia Peplau, & Carolyn Cutrona, *The Revised UCLA Loneliness Scale: Concurrent and Discriminant Validity Evidence*, Journal of Personality and Social Psychology, 39, 472-480 (1980).

scientists.[79] Respondents select one of four possible responses (always, often, rarely, never) to each of twenty (20) separate items that ask about different but related aspects of their perceived loneliness. A respondent's loneliness score is represented by the appropriately weighted sum of their answers to the entire set of twenty questions.[80]

170. The mean UCLA Loneliness Scale score for the representative sample of long-term PBSHU prisoners I interviewed was 54.9, more than 10 points above the cutoff point that scale developers consider indicative of "high loneliness." In contrast, the PBGP prisoners averaged 41.6 overall on the scale, clearly at the higher end of the distribution of scores reported in the literature, but not reaching the "high loneliness" cutoff score (of 44) and not remotely as lonely as the long-term PBSHU prisoners.

171. The differences between the two groups—the sample of PBSHU prisoners versus the PBGP group—on their UCLA Loneliness scores is highly statistically significant, $t = 4.64$, df=64 , $p<.001$, Cohen's $D = 1.15$. That difference is graphically depicted below in Figure 3.

[79] Hughes, et al., *supra* note 77, at p. 657.

[80] Items are appropriately counterbalanced so that, for some, "always" indicates frequent loneliness and for others it indicates the opposite, and so on.

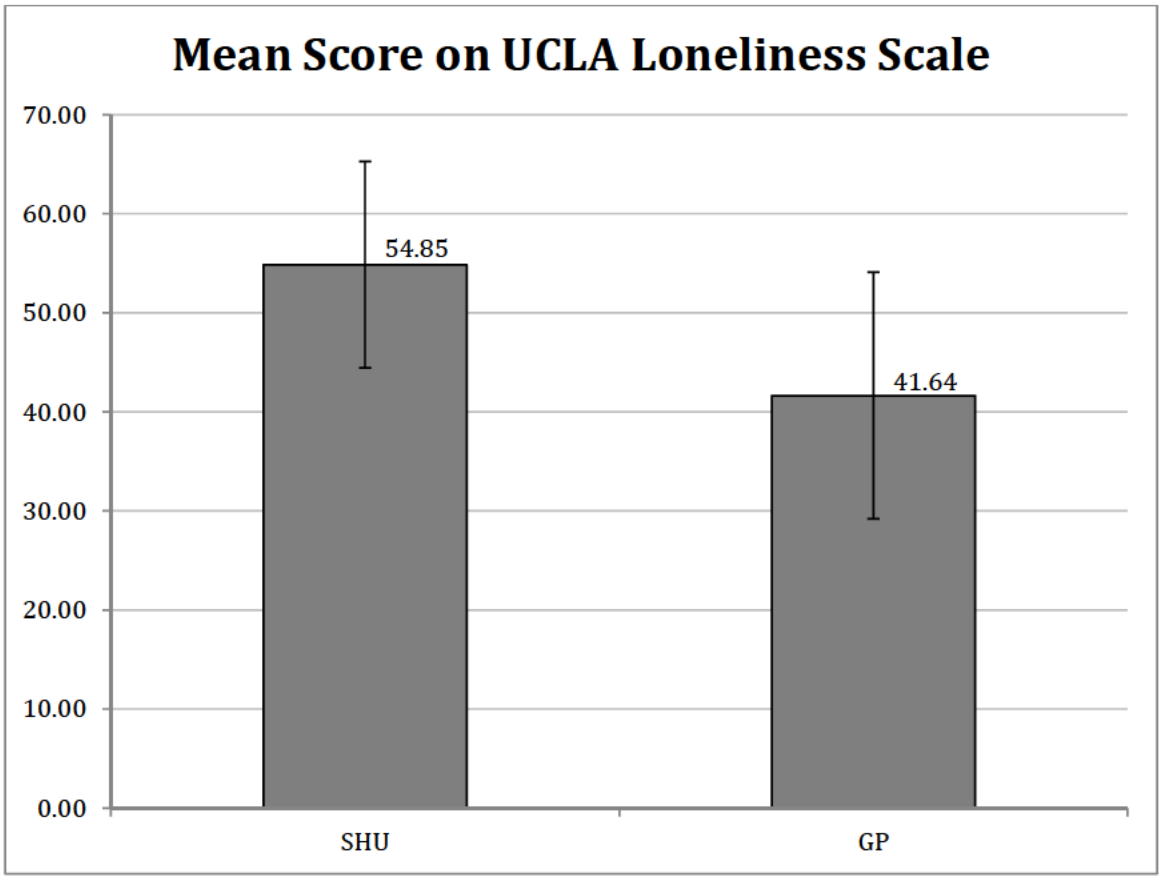


Figure 3: UCLA Loneliness Scale Scores, PBSHU vs. PBGP*

***Error bars show the standard deviation of each group's scores.**

172. The highly significant difference between these groups seems remarkable, given the relatively limited differences in the amount of social contact available to the PBGP prisoners who are, as I have noted, living in an extremely harsh, "locked down" mainline prison. Indeed, as I also have pointed out, many of the PBGP prisoners complained about their objectively limited out-of-cell time and sparse contact with others—not nearly as extreme as in the SHU but nonetheless very limited. However, the explanation for the stark difference in the levels of measured loneliness between them appears to lie in the fact that—because they were afforded the opportunity to enjoy at least *some* meaningful

social contact and to participate in *some* semblance of normal social interaction (that includes phone calls and contact visiting)—the PBGP prisoners have *not* been forced to adopt the extreme survival strategies that the more profoundly isolated long-term PBSHU prisoners had. That is, despite their limited opportunities for interaction, they were virtually unanimous in expressing their desire to participate in the admittedly limited social contacts they were afforded in GP. If anything, they told me that they sought *more* of them. Thus, they all said they took yard, even though it was often cold and rainy outside, all went to dayroom, even though there was not much to do there, said they used the phone as much as permitted (and their family's finances would allow), and told me they wished they could have even more contact visits.

173. In contrast, as I have noted, the PBSHU prisoners have been afforded none of these opportunities, however limited they may be. Instead, they have had to devise a set of psychologically very problematic survival strategies to exist for a decade or more within conditions of virtually complete isolation. As it turns out, attempting to survive for this long, under conditions of isolation this extreme, produces pathological levels of loneliness.

174. The degree of loneliness experienced by the PBSHU prisoners is clearly extraordinary. In fact, a literature search of the extensive number of published studies on measured levels of loneliness suggests that the SHU prisoners are among the loneliest groups ever assessed. Their mean scores are comparable to, and in most instances even more extreme than, those of groups of

elderly nursing home patients and elderly persons institutionalized for chronic, life-threatening illness.[81]

175. As I pointed out earlier, such extremely high levels of loneliness place persons at risk of a host of serious negative psychological and physical outcomes. In addition to these heightened loneliness-related risks to physical and psychological well-being, the subjective experience of loneliness is itself extremely painful. Indeed, two prominent researchers in this area have described loneliness as "a strong sense of social pain, emptiness, isolation, sadness for lack confidants, unimportance and worthlessness."[82]

176. This brief quote provides an excellent short summary of much of what my qualitative interview data and the more structured symptom assessments clearly and consistently indicate. The decade or more of PBSHU isolation has imposed a painful form of social death on these men, manifested in part in the pathological levels of loneliness from which they now suffer, as well as the concomitant deep sense of social pain, emptiness, and worthlessness that they experience and report.

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[81] For example, see: Fessman, N., & Lester, D. (2000). *Loneliness and Depression Among Elderly Nursing Home Patients*. The International Journal of Aging & Human Development, *51*, 137-141 (2000); Grov, C., Golub, S., Parsons, J., Brennan, M., & Karpiak, S., *Loneliness and HIV-Related Stigma Explain Depression Among Older HIV-Positive Adult*s, AIDS Care: Psychological and Socio-medical Aspects of AIDS/HIV, 22, 630-639 (2010); Şahin, Z., & Tan, M., *Loneliness, Depression, and Social Support of Patients with Cancer and Their Caregiver*. Clinical Journal of Oncology Nursing*, 16*, 145-149 (2012); Sun, Y., Sun, L., Wu, H., Zhang, Z., Wang, B., YU, C., & Cao, H. (2009). *Loneliness, Social Support and Family Function of People Living With HIV/AIDS in Anhui Rural Area, China*. International Journal of STD & AIDS*, 20*, 255-258 (2009); Theeke, L., Goins, R., Moore, J., & Campbell, H. (2012). *Loneliness, Depression, Social Support, and Quality of Life in Older Chronically Ill Appalachians*. The Journal of Psychology: Interdisciplinary and Applied, *146*, 155-171 (2012).

[82] John Cacioppo & Stephanie Cacioppo, *The Phenotype of Loneliness*, European Journal of Developmental Psychology, 9, 446-452 (2012), at p. 2 [citing R. Weiss, *Loneliness: The Experience of Emotional and Social Isolation*. Cambridge, MA: MIT Press (1973).

D. Absence of Outlets or Viable Sources of Professional Support

177. As I have observed at length above, the extreme social isolation and social exclusion to which the PBSHU prisoners have been subjected, the very high levels of suffering and pathology that they continue to experience, and the almost unprecedented degrees of loneliness they now suffer are based on the extraordinary social deprivation that characterizes the SHU environment. The prisoners have been effectively prevented from having any meaningful social contact with others and, as a result, effectively precluded from developing or maintaining truly meaningful social relationships or social connections, either inside or outside the prison. In the case of the Plaintiff class members, they have been kept in this painful and damaging state for a decade or more. With those harsh facts as a backdrop, I was struck by the fact that the overwhelming majority of these men had literally *no* outlets through which to express or discuss their feelings, and literally no one with whom they could acknowledge or share their pain and suffering.

178. Of course, this included the correctional staff, who were uniformly regarded by the SHU prisoners as entirely "off limits" in terms of sharing feelings or admitting weakness. That was not surprising and, in itself, did not distinguish the PBSHU from virtually all of the other maximum security prison that I have studied. After more than four decades studying the dynamics of prison life, including countless conversations with correctional officers and observations made in correctional facilities throughout the country, I can unequivocally say that the dividing line between staff and inmates is nearly universally unbridgeable, in both directions. The reprisals prisoners face for crossing it rival

or exceed the repercussions that are brought to bear on correctional officers if they are perceived by their peers as becoming too close, friendly, or caring toward prisoners. The dividing line at the PBSHU may be more inviolate than at most places, given the hardened views that both groups there have of each other, but it is in place elsewhere as well.

179. However, this unbridgeable barrier also nearly universally exists between the prisoners and the mental health staff at the PBSHU. In fact, I made a point of asking prisoners about whether they would approach mental health staff, who are supposed to come into the units on a regular basis to conduct "rounds" and monitor the mental health condition of the prisoners.[83] When I asked the interviewees whether they would talk to "the psychs," especially if they had a serious psychological problem or concern, prisoner after prisoner rejected this option out of hand. Many could not have been more vehement in expressing their disdain and mistrust, stating as well that few if any of the prisoners on their tier would *ever* talk in a meaningful or heartfelt way with the psychology staff.

180. Prisoners gave several kinds of reasons as the basis for their unwillingness to reach out to the mental health staff for help with their emotional problems. Many expressed doubts about whether there was any genuine caring and commitment on the part of the mental health staff members themselves, whom they described as typically engaging in no more than very brief, pro-forma walk-throughs in the units, doing no more than asking "how are you" as they quickly passed by, but really not expecting (and virtually never getting) a

[83] Prisoners said that the rounds are supposed to occur on a weekly basis but that they were typically more infrequent. They all acknowledged that they do, in fact, occur.

meaningful reply. As one of the prisoners (Prisoner S) told me: "I would not talk to the psych staff. They are not here to help you. They are here to move the process along, [to] look like they are trying. They don't even say your name. Everybody I know shines them on." Another prisoner (Prisoner O) said, "nobody talks to them. We know they won't do anything for you. It's not in their interest to tell the truth. They go through and ask 'are you feeling OK?' How am I supposed to know?… I've seen people lose it in here [and] they still don't talk to the psychs."

181. [redacted] (Prisoner HH) concurred, saying "if I was having psychological problems, the psych who just walk by your cell, how would I even know to tell someone? I can't connect to them, I wouldn't go to them. They just say 'psych services' and that's it. They never call us out, like this [a confidential, one-on-one interview], where they really engage."

182. [redacted] (Prisoner II) [redacted] told me he had spent approximately 17 years continuously in the PBSHU. His prior experience with isolation was extremely problematic. He said: "I got paroled out of solitary [redacted] directly out of solitary. It was impossible to describe how hard it was. I was suffering the consequences of being tortured. I had a nervous breakdown." He said that he continued to be affected by isolation and that he had developed an "anxiety disorder," for which he actually sought psychiatric help in the PBSHU. He said that he was formally diagnosed with an anxiety disorder, but that he had a letter from Dr. Sayer at the prison "saying he can't help, to breath into a paper bag when I have anxiety." This prisoner went on

to say, “the psychs are a joke. They spend a few minutes in each unit. They just walk through fast, just superficially.”

183. A number of other prisoners said that they feared that anything they said to the mental health staff—even the mere fact that they had talked to the psychs, something that is inevitable given the physical arrangements and procedural practices in the PBSHU units—would be used against them. Of course, they were reluctant to have other prisoners know that they were having mental health problems; this, too, is a widespread concern in prisons everywhere, where strong disincentives exist for prisoners to admit weakness of any kind. One prisoner (Prisoner JJ) summed this up when he told me that although people do “lose it back here,” he would never consult the mental health staff. They “change all the time” and, also, he said “you don’t want people listening to what your problems are—so nobody talks to [the MH staff] or even acknowledges them.”

184. However, a number of the PBSHU interviewees expressed additional concerns over sharing information about their mental health with the staff. One prisoner (Prisoner KK) who was adamant about the distrust of the mental health staff explained it this way. He said: “I would never go to the psychs. They are the same as COs. I’ve seen it happen—prisoner goes to psych, psych tells COs, and they [the COs] hassle him.”

185. [redacted] (Prisoner LL), who had spent approximately 13 continuous years in the PBSHU, said much the same thing. He told me that although he has done a lot of programs “to improve myself,” on his own, people in the PBSHU are “withering away” there. And, he said, “there is nobody to seek out here for help,” and that included the mental health staff. He

said, “it goes without saying that we have trust issues with them, and its not really confidential, plus we get stigmatized and shamed” by talking to the mental health staff. Similarly, another prisoner (Prisoner MM) told me, “I doctor myself. The mental health staff here will use what you say against you rather than help you.”

186. One prisoner (Prisoner D) noted that those few prisoners who do see the mental health staff risk being subjected to ridicule, even by correctional officers. He said, “For guys who are on the [mental health] list, the guard says, ‘hey, you want to go see the looney doctor?” Another prisoner (Prisoner NN) added a somewhat different but related concern: “the psychs aren’t really interested. [They] go through the motions. I’ve seen how they treat people who are having issues, they don’t do anything for them.” On the other hand, he said, contact with them comes at a price: “If a CO makes a referral—often to hassle the prisoner—then the psychs take it seriously. [The COs] are making it look like you are losing it [as] a way of punishing you. [It] makes you look crazy and it will lead to your being ostracized.”

187. In addition to the generalized distrust and concerns over appearing weak to COs as well as to other prisoners, a number of prisoners I interviewed had stories about actually seeking help at an earlier time during their stay in the PBSHU, only to be ignored, manipulated, or mistreated in the process. For example, [redacted] (Prisoner OO) said that he had seen a mental health staff member when he first came to PBSHU about 14 years ago and was told that if he was not going to debrief he should not bother coming back. So he never returned. But he said he learned that: “the psychs who go through the

units each week just breeze through. Nobody trusts the psychs in here. They don't want to help you. They work for and help the prison."

188. One prisoner (Prisoner P) who had been in the PBSHU for more than two decades also said that he actually did go see the mental health staff in the 1990s but "they just wrote it down, didn't help—they brush you off, that's what I learned." He also said, in terms that I heard voiced again and again, that "there are guys who lose it back here. The psychs come by, just pass by, every couple weeks they come in, [say] 'psych'—they look in, don't seem to care. I wouldn't trust them if I had a problem."

189. Of course, I have no way of knowing how dedicated and caring the mental health staff actually is at the PBSHU, and am not directly or indirectly commenting on the quality of care they are capable of offering prisoners. Given the level of distrust that seems to permeate these units, however, those things seem irrelevant. I do think that these comments, the fact that they are so widely held and vehemently expressed, help to explain why many of the underlying psychological problems that I have documented are so infrequently observed by and reported on by the prison's mental health staff. Not only do they see prisoners under conditions that simply do not lend themselves to meaningful psychological assessments or allow for meaningful judgments to be made about levels of (or changes in) psychological functioning, but there is such nearly universal distrust of the staff members that it is inconceivable that any significant number of prisoners would come forward to candidly discuss what they were feeling. The staff simply does not meaningfully and proactively seek out the information and the prisoners are not going to volunteer it.

190. And that fact leads to a conclusion that is perhaps even more striking and problematic. It is that the Plaintiff class members are left with absolutely no one with whom they can regularly turn for help with their emotional problems, suffering, or psychological pain. They are, for virtually all intents and purposes, living completely alone, and they have been living this way for a decade or more.

VII. Conclusion: Long-Term PBSHU Confinement Cruelly Inflicts Extreme Psychological Pain and Lasting Damage on Prisoners That Derive In Large Part From the Experience of Social Death To Which It Subjects Them.

As I have described in detail above, there is a robust scientific literature that establishes the adverse psychological effects of solitary or isolated confinement and the severe risk of harm to which prisoners in such units are exposed. The risk of harm exists whether or not isolated prisoners are "double celled" and it applies even to those prisoners who enter solitary confinement units without any pre-existing psychiatric disorders. Isolated prisoners are placed at risk of extremely serious and sometimes irreversible harm, including loss of psychological stability, impaired mental functioning, self mutilation, and even death. These empirical findings are theoretically coherent and sound, and are directly related to a much larger literature on the extremely harmful effects of social isolation and social exclusion, which we now know are inimical to psychological well-being and physical health.

191. Based on the documents that I have reviewed and the interviews I have conducted, as well as my prior knowledge of conditions, practices, and procedures at the PBSHU, I believe that prisoners in this facility continue to be

subjected to precisely the kind of treatment that the scientific literature indicates places them at serious risk of harm.

192. However, in this case, the harm is neither speculative nor a calculable "risk." It is instead very palpable and real. The kind of near-total, long-term isolated confinement to which these prisoners have been subjected has produced changes in them that are in many ways qualitatively different from and more dangerous than the ones that take place during shorter-term solitary confinement. It has forced these prisoners to truly become—not just to more briefly endure being—asocial and alone. Prisoners in the PBSHU have been subjected to a form of "social death" that has undermined and even destroyed their relationships with others, and damaged their ability to function as social beings. Their identities have been transformed, and their personalities changed. These transformations and changes have occurred over a long period of time, and they have incurred significant amounts of pain and suffering along the way.

193. What is of special concern is not only that these prisoners have not "gotten used to it," and are still suffering. It is that they are suffering in a way that is different from and much worse than the acutely traumatized prisoners who were housed in the PBSHU in the pre-*Madrid* days. The difference is that they have endured these harsh and painful conditions for *more than a decade*—in some instances for several decades—and they are still not only in pain but also transformed and profoundly lessened by the experience. The passage of time has not ameliorated or desensitized them to the pain they are experiencing but, if anything, has deepened the sense of loss and the realization that can never fully recover much of what has been taken from them. In a very real and fundamental

way, they have undergone a transformation in their personalities as a result of the conditions of isolated confinement and social exclusion to which they have been subjected. At a basic level, they are no longer people who can comfortably and normally interact with, relate to, or care about other human beings. As I stated earlier, these experiences have adversely and fundamentally changed these men's relationships to others and to themselves. It is hard to imagine a more basic transformation in "who" someone truly "is" than that. And it is the terrible combination of the sheer totality of the isolation and the sheer duration of the experience that has produced it.

194. Based on my knowledge and study of the human condition, I believe that meaningful social contact represents a basic human need. Its deprivation is not only painful but, depending on the length of the deprivation and the reasons for its imposition, is needlessly cruel and so harmful as to irreparably damage many of the persons who are subjected to it. Prolonged isolation changes people in negative ways that many persons are unlikely to be able to remedy or correct. It literally transforms who they are, how they function in the world, and the way relate to themselves and to others. It undermines who they are and what they are able to become.

195. The combination of the totality of the data that I have collected and discussed in the preceding paragraphs, and the related review of the literature on the consequences of the extreme form of isolated confinement that has been imposed on Plaintiff class members at the PBSHU indicate that the CDCR has pursued a policy of prolonged cruelty, one imposed with little or no evidence to suggest that it was likely to be effective in producing positive changes in

individual prisoners or in prison operations anywhere in the state. Indeed, the policy and practice were doggedly pursued—for decades—in the absence of any evidence that it was in fact succeeding, and a great deal of evidence that it was placing prisoners at significant risk of grave psychological harm.

196. Many of the most onerous and harmful conditions of confinement and the regimen of harsh practices and procedures that I encountered in the PBSHU some twenty (20) years ago are still in existence. There are numerous prisoners who have been subjected to those conditions for extremely long periods of time (some from as long ago as 1989, when the facility opened). The very substantial harm that has been done to the Plaintiff class continues. Swift, decisive, and very significant intervention is necessary to alleviate it in a meaningful and lasting way.

Craig Haney Ph.D., J.D.

Craig Haney, Ph.D, J.D.

Date: March 12, 2015

EXHIBIT 2

Exhibit 2: A Statement of Compensation and Cases Testified in as an Expert at Trial or by Deposition in the Last Four Years.

I am charging $175 per hour plus all expenses for my work on this expert report, and $200 per hour plus all expenses for testimony at trial."

Trial/Hearing Testimony:

United States v. Lujan (2011)

State v. Topete (2011)

United States v. Richardson (2012)

State v. Gatica (2012)

United States v. Northington (2013)

United States v. McCluskey (2013)

Coleman v. Brown (2013)

United States v. Williams (2014)

Deposition Testimony:

Coleman v. Brown (2013)

Mitchell v. Cate (2013)

Conley v. City and County of San Francisco (2013)

Sardakowski v. Clements (2013)

Parsons v. Ryan (2014)

State v. Carreon (2014)

EXHIBIT 3