Conference Proceeding

Apportioning Culpability in Multiple Perpetrator Acts of Terrorism

Kate Y. O'Malley [1], James D. Seward [1], Michael Welner [1,*]

1, The Forensic Panel, 224 W30th Street Ste 806, New York City, New York, USA.

Open Access

Abstract

The Depravity Standard instrument was developed to operationalize depraved elements of crimes. It consists of 25 items that were derived using multiple sources of data, including case reviews, input from professionals, and over 40,000 survey respondents. This paper presents preliminary data on the use of the Depravity Standard in cases with multiple perpetrators, examining its efficacy in differentiating the culpability of co-conspirators in a terrorist act.

The U.S. has been the site of three high-profile terrorist events with dual perpetrators: the 1995 Oklahoma City bombing by ex-U.S. Military acquaintances Timothy McVeigh and Terry Nichols; the 2013 Boston Marathon bombing by brothers Tamerlan and Dzhokhar Tsarnaev; and the 2015 San Bernardino mass shooting by husband and wife Syed Rizwan Farook and Tashfeen Malik.

In this pilot project, two independent raters applied the 25 items of the Depravity Standard to each of the six perpetrators to determine which of each pair was the more culpable. Interclass correlation coefficients revealed a high degree of agreement between the raters, attesting to the reliability of the Depravity Standard items. Examination of the total number of Depravity Standard items present reveals McVeigh was more culpable than Nichols. The other four perpetrators were similarly culpable to their partners.

These current findings indicate that the Depravity Standard is a promising instrument to determine comparative culpability in terrorist actions with multiple perpetrators. Ongoing analyses of public participation data indicate some items to be more indicative of depravity than others, and future analyses will compare weighted scores.

* Corresponding Author: Michael Welner M.D.
Email: : drwelner@forensicpanel.com

توزيع المسؤولية الجنائية في الأعمال الإرهابية متعددة الجناة

المستخلص

أعدت أداة معايير الفساد السلوكي (الانحراف الأخلاقي، قياس درجة التدني الأخلاقي) لتفعيل عناصر الانحراف الأخلاقي في الجرائم. وتتألف هذه الأداة من 25 بنداً تم اشتقاقها باستخدام بيانات متعددة المصادر، بما في ذلك مراجعة الحالات، والمدخلات من المهنيين، وتعبئة أكثر من 40,000 استبانة مسحية من المستجوبين. وتعرض هذه الورقة بيانات أولية عن استخدام أداة معايير الفساد السلوكي في الحالات الجرائم متعددة الجناة، بهدف اختبار فعاليتها

في التمييز بين مسؤولية الجناة المشتركين في عمل إرهابي.

وكانت الولايات المتحدة موقعاً لثلاثة أحداث إرهابية عالية المستوى بواسطة اثنين من المنفذين: تفجير أوكلاهوما سيتي عام 1995 بواسطة شخصين أقارب كانوا في الجيش الأمريكي سابقاً، تيموثي ماكفييه وتيري نيكولز؛ وتفجيرات ماراثون بوسطن عام 2013 من قبل الإخوة تامرلان وزوخار تسارنايف؛ وإطلاق النار الجماعي سان برناردينو 2015 من قبل الزوج سيد رضوان فاروق والزوجة تشفين مالك.

وفي هذا المشروع التجريبي، طبق اثنان من المقيمين المستقلين 25 بنداً من معيار الفساد السلوكي على كل من الجناة الستة لتحديد أي منهما كان أكثر مسؤولية عن الجريمة. وكشفت معاملات الارتباط بين الطبقات وجود درجة عالية من الاتفاق بين المقيمين، مما يدل على موثوقية البنود المعيارية للفساد السلوكي. ولقد أشار فحص العدد الإجمالي لبنود معايير الفساد السلوكي الموجود إلى أن مكفي (Mc Veigh) كان أكثر مسؤولية من نيكولز(Nichols) . أما الجناة الأربعة الآخرون فكانوا متساويين في المسؤولية مع شركائهم.

تشير النتائج الحالية إلى أن معيار الفساد السلوكي هو أداة واعدة لتحديد المسؤولية النسبية في الأعمال الإرهابية بين مرتكبي الجرائم المتعددين. وتشير التحليلات الجارية لبيانات المشاركة بين العامة إلى أن بعض البنود تكون أكثر دلالة على الفساد السلوكي من غيرها، وأنه على التحليلات المستقبلية مقارنة الدرجات المرجحة.

الكلمات المفتاحية: علوم الأدلة الجنائية، شدة الجريمة، معيار الانحراف السلوكي، والإرهاب، المسؤولية الجنائية.

1. Introduction

The justice system in the United States couples stability of the rule of law with evolution borne of the turbulent creativity of diverse perspective. Among the areas closely scrutinized are criminal sentencing and how to make punishment of crime fair, and less colored by biases. Currently, criminal law in the U.S. distinguishes "aggravating factors" as certain features in a crime that warrant harsher sentencing, yet there are no standardized definitions for terms like "heinous," "atrocious," "cruel" or "depraved" that can increase sentencing when found present [1,2]. With ambiguous or impressionistic instructions and guidance, justice decision-makers have little direction as to what makes a crime "depraved," and are often forced to rely on subjective arguments for and against the presence of depravity in a given offense [3,4].

Forensic science and medicine's embrace of evidence-based practice may hold great promise for enhancing the fairness of sentencing [1]. Can criminal punishments better reflect a perpetrator's intent, actions, and attitude about crime, rather than the financial resources of an offender, his race, his clan, or his governmental influence?

Forensic psychiatrist Michael Welner, MD, conceived the Depravity Standard to apply scientific rigor to criminal sentencing decision-making by identifying categories of evidence that distinguish the worst-of-the-worst crimes [5]. In this regard, the Depravity Standard promotes the use of the harshest punishments and prison sentences for the most heinous or depraved of crimes. The Depravity Standard is also appropriate for use at other stages of justice, such as assisting prosecutors in determining appropriate charges to assign, and in establishing those inmates for whom early prison release may be appropriate because of the relative lack of depravity of their offense [6].

The Depravity Standard is additionally well suited for apportioning culpability in cases with more than one actor and conspirator. The mechanism for assessing cases with the Depravity Standard examines individual perpetrators and their unique role in a crime independent of contamination from other co-conspirators. This is potentially important both in the investigative phase, to identify the primary perpetrator for further investigation, especially in cases of multiple actors, and for ensuring that the severity of punishment is fairly apportioned to those who have earned the distinction of being most blameworthy.

The United States has been the site of three high-profile terrorist events with dual perpetrators: the 1995 Oklahoma City bombing, the 2013 Boston Marathon bombing, and the 2015 San Bernardino mass shooting. This pilot study will investigate the efficacy of the Depravity Standard in apportioning culpability in these multiple perpetrator terrorism cases.

2. Materials and Methods

2.1. The Depravity Standard

Since the inception of a multi-tiered research initiative, extensive data has been collected regarding the Depravity Standard. The methodology employed guides decision-making about depravity in murder by incorporating elements of intent, actions, victim choice, and the offender's attitude about the crime. The Depravity Standard has taken shape from an inclusive review of higher court sentencing for the worst of crimes, input from professionals and observers on what elements constitute the worst of crimes, a survey of over 40,000 community respondents to gauge public appraisal of different facets of depravity, and data from a large number of closed felony case files, including over 750 murder cases.

Coalescing a definition of criminal depravity from these different vantage points has contributed to a Depravity Standard that accounts for what courts believe to be the extremes of criminality, what the public believes should be defined as these extremes, what working professionals and interested students of crime experience as exceptional, and finally, what actual case study reveals about the qualities of the more narrowed class of offenses and the offenders responsible.

Through this, an inventory of 25 items have been identified, and validated (manuscripts in preparation), as elements of depravity in crime. These 25 items are comprised of four different categories: (1) Intent items, involving the purpose of the perpetrator(s); (2) Victim choice items, dealing with the characteristics of the victim(s); (3) Action items, assessing the behavior of the perpetrator(s); and (4) Attitude items, dealing with the emotional perspectives of the perpetrator(s) (Table-1).

2.2. Sample

This sample includes 6 individuals who engaged in three high-profile terrorist events in the U.S. with two perpetrators, and were convicted for their actions or died in the commissioning of their offense. For the purposes of this pilot study, terrorism is defined as "the use or threat of action where the use or threat is designed to influence the government or to intimidate the public or a section of the public, and/or the use or threat is made for the purpose of advancing a political, religious, or ideological cause" [7].

The three cases contained unique relationship types between the offenders. The April 19, 1995 Oklahoma City bombing was perpetrated by ex-U.S. Military acquaintanc-

Table 1- *The Depravity Standard 25 items*.

Item	Item Description
Intent Items	
1	Intent to emotionally traumatize the victim, maximizing terror, through humiliation, or intent to create an indelible emotional memory of the event
2	Intent to maximize damage or destruction, by numbers or amount if more than one person is victimized, or by degree if only one person is victimized
3	Intent to cause permanent physical disfigurement
4	Intent to carry out a crime for excitement of the criminal act
7	Influencing depravity in others in order to destroy more
8	Crime reflects intent of progressively increasing depravity

9	Carrying out a crime in order to terrorize others
10	Carrying out crime in order to gain social acceptance or attention, or to show off
11	Influencing criminality in others to avoid prosecution or penalty

Victim Choice Items

5	Targeting victims who are not merely vulnerable, but helpless
6	Exploiting a necessarily trusting relationship to the victim
13	Intentionally targeting victims based upon prejudice

Action Items

12	Disregarding the known consequences to the victim
14	Prolonging the duration of a victim's physical suffering
15	Unrelenting physical and emotional victimization; amount of victimization
16	Exceptional degree of physical harm; amount of damage
17	Unusual and extreme quality of suffering of the victim, including terror and helplessness
18	Indulgence of actions, inconsistent with the social context
19	Carrying out crime in unnecessarily close proximity to the victim
20	Excessive response to trivial irritant; actions clearly disproportionate to the perceived provocation

Attitude Items

21	Pleasure in response to the actions and their impact
22	Falsely implicating others, knowingly exposing them to wrongful penalty and the stress of prosecution
23	Projecting responsibility onto the victim; feeling entitlement to carry out the action
24	Disrespect for the victim after the fact
25	Indifference to the actions and their impact

Table 2- *Perpetrator Information.*

		Age	Gender	Motivation	Legal Outcome	Type of Murder
Oklahoma City (168 dead, 650+ wounded)	Timothy McVeigh	26	M	Anti-Government	Death Penalty	Bombing
	Terry Nichols	40	M	Anti-Government	Life without Parole	Bombing
Boston Marathon (4 dead, 265 wounded)	Tamerlan Tsarnaev	26	M	Religious fanaticism	Dead	Bombing
	Dzhokhar Tsarnaev	19	M	Religious fanaticism	Death Penalty	Bombing
San Bernardino (14 dead, 22 wounded)	Syed Farook	28	M	Religious fanaticism	Dead	Mass Shooting
	Tashfeen Malik	29	F	Religious fanaticism	Dead	Mass Shooting

Table 3- *Results of case rating by perpetrator.*

Oklahoma City		Boston Marathon		San Bernardino	
Timothy McVeigh	Terry Nichols	Timothy Tsarnae	Dzhokhar Tsarnae	Syed Farook	Tashfeen Malik
9.5	6.5	8	7.5	7.5	8

es Timothy McVeigh and Terry Nichols; the April 15, 2013 Boston Marathon bombing was perpetrated by brothers Tamerlan and Dzhokhar Tsarnaev, and the December 2, 2015 San Bernardino mass shooting perpetrated by husband and wife Syed Rizwan Farook and Tashfeen Malik.

2.3. Data Collection and Analysis

Case summaries were developed by researchers trained in the use of the Depravity Standard. The criteria for data to be included in case summaries focused on the intent and antecedent event behaviors, victim choice and motivations, actions and attack-specific behaviors, and attitudes and post-event behaviors of the offenders. The summaries also included demographic information, where known (age, gender, occupation, family dynamic, relationship status, employment). Data were collected by examining relevant information contained in open source news reports, books, biographies, scholarly articles, and court documents. Basic information pertaining to each of the perpetrators can be seen in Table-2.

2.4. Case Rating

Two raters trained in the use of the Depravity Standard were recruited for this pilot study. Using the thorough case summaries, the two raters acting independently applied the 25 items to each of these 6 perpetrators across the three

cases to see if it could be determined which of the pair was the more culpable. Each rater rated an item as being present, absent, or insufficient data available to determine.

3.4. Statistical analyses

Data analysis was performed using Statistical Package for Social Sciences (SPSS) version 24 for Windows (IBM Corp. [8]). Data was entered as a score of 1 = Item Present, or 0 = Item Absent/ Insufficient Data Available to Determine. Interrater reliability was measured using two-way random interclass correlation coefficients. Overall ratings for each of the perpetrators were summarized as the mean score across both raters per perpetrator.

3. Results

Interclass correlation coefficients revealed a high degree of agreement between the raters, attesting to the reliability of the DS items, with coefficients ranging from 0.79 to 0.96. The total scores from each rater were averaged to produce a Mean Depravity score for each of the six perpetrators.

Examination of the Mean Depravity Standard scores reveals that Oklahoma City bomber Timothy McVeigh had more Depravity Standard items present and was thus found to be more culpable than Terry Nichols, whereas Tamerlan Tsarnaev and Dzhokhar Tsarnaev, and Syed Farook and Tashfeen Malik, were all equally culpable (Table-3).

Specifically, McVeigh was judged to be more culpable due to at least one rater judging him to exhibit pleasure in response to the actions and their impact (Item 21), projecting responsibility onto the victim; feeling entitlement to carry out the action (Item 23), and indifference to the actions and their impact (Item 25), whereas neither of the raters judged Nichols to exhibit those characteristics. Interestingly, all three of these items are contained in the Attitude category.

4. Discussion

This pilot study indicates that the 25 items of the De-

pravity Standard can be applied to acts of domestic terrorism involving multiple perpetrators in the United States in order to apportion culpability. Such information could be vital in sentencing and parole considerations. For example, the recent release of Fuerzas Armadas de Liberación Nacional terrorists in the United States, a group that advocated for the independence of the United States territory of Puerto Rico, was a source of considerable controversy [9]. However, there was no available systematic and evidence-rooted means for objectively considering the relative responsibility of these subjects in the crimes.

The Oklahoma City bombing is the only of the three incidents studied in which both perpetrators survived and thus were tried. The outcome of this case provides additional validation for this method; Timothy McVeigh was executed in 2001, whereas Terry Nichols was sentenced to life in prison after both state and Federal juries deadlocked on the death penalty.

There are several limitations to this study. The differentiating items in the Oklahoma City bombing pair were all attitude items, for which there may have been more readily available data given the perpetrators both survived to be interviewed and more readily observed by others. Attitudes may have been harder to find information for when the perpetrators died or otherwise were cut off from witnesses who could inform these investigations.

While Timothy McVeigh survived, he was not cooperative or forthcoming with information. Data reflecting intents and attitudes does not necessarily indicate honest disclosure by the perpetrator, and any information they provide can be expected to be self-serving, given the consequences of legal accountability [10]. Forensic specialists still need to piece together collateral information from multiple sources, as was done for this pilot study.

Ongoing research is currently being conducted to calculate weightings for the items [11,12]. Preliminary results from this online survey demonstrate that the general public find some items more depraved than others. As scores were unweighted in this study, and it is unlikely that all

items reflect equal amounts of depravity, the addition of weights when available may add precision to determining relative culpability.

Finally, as noted, only publicly available information was used to inform the case studies, and the level of detail reported varied slightly across incidents. Access to confidential and sensitive information would likely improve the raters' assessment. Despite these limitations, open source accounts can provide rich data, especially in such high-profile cases.

5. Conclusion

Sentencing decisions in the U.S. are frequently reported to be biased based on gender, age, sociodemographic status, race, and ethnicity, and other factors [13-18]. The results of this pilot study have demonstrated that the Depravity Standard tool provides an unbiased accounting for depravity in terrorism cases, stripping away these biasing factors. For example, despite Tashfeen Malik being female, a fact that one would expect to see leniency because of [19], she scored 0.5 higher on her Depravity Score than her husband. There is often a presumption in major crime cases that the male perpetrator is the prime mover and principally responsible. This pilot study suggests that the Depravity Standard as applied to domestic terrorism promotes analysis free of gender bias, with a finding that some might deem unexpected.

Additionally, 19-year-old Dzhokhar Tsarnaev scored only 0.5 lower on his Depravity Score than his 26-year-old brother Tamerlan Tsarnaev. Younger age is a factor that typically begets a presumption that a teenager was led passively by an adult co-conspirator [20]. The Depravity Standard demonstrates that this thinking, too, may prove to be a product of bias rather than evidence. These findings also demonstrate flaws in the general assumption that one perpetrator is always the leader or always more culpable, with two of the three cases showing it not to be the case.

Relative culpability can be informed by a higher magnification of the evidence of the case. The Depravity Standard

affords this scrutiny to examine the intent, victim choice, actions, and attitude of the perpetrator. By accounting for the before, during, and after of a crime the Depravity Standard goes beyond traditional biasing instruments.

Future studies will continue to develop and validate the Depravity Standard for use in terrorism cases. Preliminary analyses of public participation data demonstrate some items to be more indicative of depravity than others. Future studies will analyze this publicly obtained data to assign weightings to each of the items, and additional analyses on a larger sample of terrorism cases will compare weighted scores. Nonetheless, these initial findings indicate that the Depravity Standard is a promising instrument to determine relative culpability among multiple perpetrators in terrorism events.

Conflicts of Interest

The authors have no conflict of interest to report.

References

1. Welner M. The justice and therapeutic promise of science-based research on criminal evil. J Am Acad Psychiatry Law. 2009;37:442-9. PMid:20018993

2. Reinhard KJ, Welner M, Okoye MI, Marotta M., Plank G., Anderson B, Mastellon T. Applying forensic anthropological data in homicide investigation to the Depravity Standard. J Forensic Leg Med. 2013;20:27-39. https://doi.org/10.1016/j.jflm.2012.04.018, PMid:23217373

3. Barton VL. Knowing evil when we see it: an attempt to standardize heinous, atrocious, and cruel. Nova L. Rev. 2009;33:679-702.

4. Ball WD. Heinous, atrocious, and cruel: apprendi, indeterminate sentencing, and the meaning of punishment. Colum L Rev. 2009;109:893-972.

5. Welner M. Classifying crimes by severity: from ag-

gravators to depravity. In Douglas J E, Burgess A W, Burgess A G, Ressler R K, editors. Crime classification manual 3rd ed. New Jersey: John Wiley & Sons, 2013; 91-107.

6. Welner M, O'Malley K. The Depravity Standard: using a publicly defined and scientifically developed measure to alleviate prison overcrowding. NYPTI: ESP. 2015; Winter:1-5.

7. Gill P, Horgan J, Deckert P. Bombing alone: tracing the motivations and antecedent behaviors of lone-actor terrorists. J Forensic Sci. 2014;59(2):425-35. https:// doi.org/10.1111/1556-4029.12312, PMid:24313297 PMCid:PMC4217375

8. IBM Corp. IBM SPSS Statistics for Windows, Version 22.0. Armonk, NY: IBM Corp; 2013.

9. Dillon N. Oscar López Rivera freed 36 years after string of bombings. New York Daily News [newspaper online]. 2017 May 17 [cited 2017 Oct 13]. Available from: Daily News. http://www.nydailynews.com/news/ world/oscar-lopez-rivera-freed-36-years stringbomb- ings-article-1.3173918.

10. Rogers R, Bagby RM, Dickens S E. Structural inter- view of reported symptoms (SIRS) and professional manual. Odessa, Florida: Psychological Assessment Resources; 1992.

11. The Depravity Standard [homepage on the Internet]. No date [cited 2017 Oct 13]. Available from: www.de- pravitystandard.org.

12. Lanyon RI. Dimensions of self-serving misrep- resentation in forensic assessment. J Pers As- sess. 2001;76(1):169-79. https://doi.org/10.1207/ S15327752JPA7601_10, PMid:11206296

13. Britt C. Social context and racial disparities in punish- ment decisions. Justice Q. 2000;17(4):707-32. https:// doi.org/10.1080/07418820000094731

14. Chiricos TG, Crawford C. Race and imprisonment: A contextual assessment of the evidence. Ethnicity, race, and crime: Perspectives across time and place. 1995;13:281-309.

15. Johnson BD. Racial and ethnic disparities in sen- tencing departures across modes of convic- tion. Criminol. 2003;41(2):449-90. https://doi. org/10.1111/j.1745-9125.2003.tb00994.x

16. Johnson B. Contextual disparities in guideline depar- tures: courtroom social contexts, guideline compliance, and extralegal disparities in criminal sentencing. Crimi- nol. 2005;43(3):761-96. https://doi.org/10.1111/j.0011- 1348.2005.00023.x

17. Kautt PM. Location, location, location: interdistrict and intercircuit variation in sentencing outcomes for federal drug trafficking offenses. Justice Q. 2002;19(4):633- 71. https://doi.org/10.1080/07418820200095381

18. Ulmer JT, Johnson BD. Sentencing in context: a mul- tilevel analysis. Criminol. 2004;42(1);137-78. https:// doi.org/10.1111/j.1745-9125.2004.tb00516.x

19. Daly K, Bordt RL. Sex effects and sentencing: An analy- sis of the statistical literature. Justice Q. 1995;12(1):141- 75. https://doi.org/10.1080/07418829500092601

20. Bontrager Ryon S, Chiricos T, Siennick SE, Barrick K, Bales W. Sentencing in light of collateral consequences: does age matter? J Crim Justice. 2017;53:1-11. https:// doi.org/10.1016/j.jcrimjus.2017.07.009