A Decarcel Cadence: Neurologic Music Therapy as an Abolitionist Project

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Essay

A Decarcel Cadence: Neurologic Music Therapy as an Abolitionist Project

RICHARD A. KIRBY & MALLORI D. THOMPSON

Because police and prison abolition must be approached while simultaneously improving quality of life, and thus reducing harm, abolitionist discourse should include health policies that regard the (de)regulation, use, and culture of addictive substances. This Essay calls for research into neurologic music therapy as a response to addiction, improving quality of life and paving the way for police and prison abolition.
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A Decarceral Cadence: Neurologic Music Therapy as an Abolitionist Project

RICHARD A. KIRBY & MALLORI D. THOMPSON

INTRODUCTION

Could the answer to dismantling violent systems of policing and prisons, stemming from a deeply racist history of colonialism, American slavery, and imperialism be as simple as music? Of course not. However, music can be one element of this grand creative project that is abolition—a complex strategy by which the oppressive and brutal system of policing falls to a system of equitable community care that improves quality of life. As Professor Dylan Rodríguez poetically wrote, abolition is “a practice, an analytical method, a present-tense visioning, an infrastructure in the making, a creative project, a performance, a counterwar, an ideological struggle, a pedagogy and curriculum . . . .”1 To build this infrastructure, communities must invest in every member’s humanity and find ways to meet their needs, as groups with unmet needs are the most vulnerable to police violence.2

The criminalization of substance addiction, specifically, is a prominent contributor to the perceived utility of police and prisons.3

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2 See Abigail Abrams, Black, Disabled and at Risk: The Overlooked Problem of Police Violence Against Americans with Disabilities, TIME (June 25, 2020, 8:56 AM), https://time.com/5857438/police-violence-black-disabled/ (reporting that people with disabilities, or people who are experiencing a “mental illness” episode, likely make up at least one-third of police killings); see also Leila Miller, Use-of-Force Incidents Against Homeless People Are Up, LAPD Reports, L.A. TIMES (Jan. 21, 2020, 10:12 PM), https://www.latimes.com/science/story/2020-01-21/use-of-force-incidents-against-homeless-people-are-up-lapd-reports (“More than one out of three times that a Los Angeles police officer used force in recent months involved a person experiencing homelessness . . . .”).
3 Redonna K. Chandler, Bennett W. Fletcher & Nora D. Volkow, Treating Drug Abuse and
Among much else, the criminalization of addiction is an intentional, institutionalized choice to prioritize racial subordination over public health and safety. And although freedom in the prison abolition context requires the complete deconstruction of the entire prison-industrial complex, there must be “radically imaginative, generative, and socially productive communal” practices that dismantle the individual, symbiotic structures that feed the prison system. In the piece leading this Commentary Issue, Professor Michele Goodwin urges that new reproductive politics be centered in abolition discourse. This Essay urges that health policy also be grounded in abolitionist discourse. This Essay is a plea to explore one radically imaginative practice—neurologic music therapy. Part I contextualizes our proposal within the harms that occur at the intersection of policing and mental health. Part II is an overview of the research regarding neurologic music therapy (NMT) and general musical therapy currently used to address addiction. Part III explains the need for an alternative response to addiction and calls for further research on the efficacy of NMT for addressing addiction. Although NMT has already proved effective in treating other

Addiction in the Criminal Justice System: Improving Public Health and Safety, 301 JAMA 183, 183 (2009) (“The large increase in the criminal justice population reflects in part tougher laws and penalties for drug offenses. An estimated one-half of all prisoners (including some sentenced for other than drug offenses) meet the criteria for diagnosis of drug abuse or dependence . . . ”) (citation omitted). See also JONAKI BOSE, SARRA L. HEDDEN, RACHEL N. LIPARI & EUNICE PARK-LEE, SUBSTANCE ABUSE & MENTAL HEALTH SERVS. ADMIN., KEY SUBSTANCE USE AND MENTAL HEALTH INDICATORS IN THE UNITED STATES: RESULTS FROM THE 2017 NATIONAL SURVEY ON DRUG USE AND HEALTH 2 (2018) (“In 2017, approximately 19.7 million people aged 12 or older had a substance use disorder (SUD) related to their use of alcohol or illicit drugs in the past year . . . ”).


Rodríguez, supra note 1, at 1576.

In this Essay, we also aim to regard disability and addiction as a social construct to avoid the pitfalls of the medical model of disability, which would position addiction as the product of an abnormal, impaired mind. Acknowledging how science and medicine operate within culture will enable us to meet the goals of this Essay without reinforcing the subordination of people with disabilities. See Jamelia N. Morgan, Reflections on Representing Incarcerated People with Disabilities: Ableism in Prison Reform Litigation, 96 DENV. L. REV. 973, 980–81 (2019) (explaining “ableism” and disability as a social construct).
disabilities—disabilities that are often present in cases of police brutality—its actual abolitionist potential is in its ability to improve quality of life for those with substance addictions, diverting them from interactions with the police.  

I. THE HARMS OF POLICING

On July 18, 2016, Charles Kinsey, a mental health therapist and community organizer, found himself lying on his back, hands raised, and pleading with an officer on behalf of his client, Arnaldo Rios Soto, who was quietly sitting with a metallic toy truck just a few feet away. A video taken by an onlooker shows Kinsey crying out repeatedly, “[a]ll he has is a toy truck,” seconds before the North Miami officer, Jonathan Aledda, opened fire three times, missed Soto, and hit Kinsey in the thigh. Soto, a twenty-seven-year-old, non-verbal man with severe autism, had run from his mental health facility where Kinsey worked. Kinsey tried to talk Soto into returning to the facility when the officer arrived on the scene and determined that a non-violent autistic man having an episode was a threat that justified the use of lethal force.

People with psychiatric disabilities are overrepresented in police interactions and the criminal legal system. “[I]ndividuals with severe mental illness generate no less than 1 in 10 calls for police [intervention],” one in five of all jail and prison inmates, and “a minimum of 1 in 4 fatal police encounters.” The deinstitutionalization of the mental healthcare system left those with psychiatric disabilities—disabilities that are often present in cases of police brutality—its actual abolitionist potential is in its ability to improve quality of life for those with substance addictions, diverting them from interactions with the police.


\[10\] Id.
\[11\] Id.
\[12\] Id.


\[14\] Id.
the greatest needs at the mercy of a brutal criminal justice system.\textsuperscript{15} Deinstitutionalization coincided with a mass embrace of “community policing,” which increased the number and presence of police officers as these mental health institutions closed.\textsuperscript{16} These two trends, along with the criminalization of drugs, contributed to an increase in contact between police and people with psychiatric disabilities.\textsuperscript{17} Available official data and unofficial reporting indicates that psychiatric disability may be a factor in as many as half of all fatal police shootings.\textsuperscript{18} Black disabled people are at even more risk of being brutalized by the police.\textsuperscript{19} As countless scholars have argued, this is because policing is a tool of white supremacy—it is a vestige of chattel slavery that perpetuates and protects the capitalist system.\textsuperscript{20} As James Baldwin once noted, “the police are simply the hired enemies of this population. They are present to keep the Negro in his place and to protect white business interests, and they have no other function.”\textsuperscript{21} In 2020, police killed over 1,000 people.\textsuperscript{22} Twenty-eight percent of those killed by police were Black people, despite being only thirteen percent of the population in the United States.\textsuperscript{23} A system this inherently violent cannot be reformed.\textsuperscript{24} We must embrace a model that expands access to

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\textsuperscript{15} Id. at 5. During the “deinstitutionalization” trend, psychiatric hospitals, the primary source of treatment for people who were affected by mental illness, were closed down. The community centers that were supposed to replace the psychiatric hospitals were either never built or focused their treatment on patients with milder cases.

\textsuperscript{16} Id.

\textsuperscript{17} Id.

\textsuperscript{18} Id. at 1.

\textsuperscript{19} Abrams, supra note 2.

\textsuperscript{20} See, e.g., Michele Goodwin, The Thirteenth Amendment: Modern Slavery, Capitalism, and Mass Incarceration, 104 CORNELL L. REV. 899, 922 (2019) (“By its adoption of the Thirteenth Amendment, Congress abolished slavery with one powerful stroke and reimagined it with another. Given this, one cannot but wonder: was slavery ever truly meant to be abolished? Despite the unseating of many southern ‘planters’ in Congress after the Civil War, proponents of slavery in northern states like Delaware and southern states like Kentucky vigorously fought to salvage that explicit hierarchy and social caste system, underscoring Blacks’ subordination and whites’ supremacy under the law.”).


\textsuperscript{22} MAPPING POLICE VIOLENCE (database updated Apr. 21, 2021), https://mappingpoliceviolence.org/.

\textsuperscript{23} Id.

\textsuperscript{24} See Rodríguez, supra note 1, at 1575–76 (“Security and freedom, for peoples subjected to the normalized state- and culturally conndoned violence of (global) U.S. nation-building, require a decisive
adequate, innovative, and noncoercive treatment and forcefully eliminates our reliance on policing—NMT could very well be a part of that model.

II. NEUROLOGIC MUSIC THERAPY VERSUS REGULAR MUSIC THERAPY

Music therapy, as a social science concept, has existed since the mid-twentieth century. Research in the 1990s drove music therapy’s evolution from social science into cognitive neuroscience. Neurologic music therapy, as a treatment model, grew into medical acceptance in the early 2000s. Not only is music “a highly structured auditory language involving complex perception, cognition, and motor control in the brain,” it is also a sensory language that “can effectively be used to retrain and reeducate the injured brain.” NMT is “the therapeutic application of music to cognitive, affective, sensory, language, and motor dysfunctions due to disease or injury to the human nervous system.” This therapy utilizes twenty techniques categorized by the diagnostic treatment goal and the role of music, encompassing motor, language, and cognitive rehabilitation. NMT capitalizes on the fact that listening to music involves the same neurological structures involved in making an emotional judgment. Stimulus specialists use specific elements of music, such as rhythm, to create departure from typical demands for policy reform formal equality, and amped-up electoral participation; rather, what is needed is a mustering of collective voice that abrogates the political-discursive limits of ‘demand’ itself.”; Stuart Schrader, Police Reform Won’t Fix a System that Was Built to Abuse Power, NATION (June 12, 2020), https://www.thenation.com/article/society/police-reform-defund-iacp/ (“The United States arrived at the contemporary situation of unaccountable police power because police reform has been a long-standing project, with global dimensions. . . . It is time to stop believing that police reform is the answer. Reformism is what got us here.”).

25 HANDBOOK OF NEUROLOGIC MUSIC THERAPY 1 (Michael H. Thaut & Volker Hoemberg eds., 2014) [hereinafter HANDBOOK].
26 Id.
27 Id. at 2; Michael H. Thaut, Gerald C. McIntosh & Volker Hoemberg, Neurobiological Foundations of Neurologic Music Therapy: Rhythmic Entrainment and the Motor System, 5 FRONTIERS PSYCH. 1, Feb. 2015, at 1, 4.
29 HANDBOOK, supra note 25, at 2.
30 Id.
31 Hans-Eckhardt Schaefer, Music-Evoked Emotions—Current Studies, FRONTIERS NEUROSCIENCE, Nov. 2017, at 1, 8 (“Functional neuroimaging studies on music and emotion, such as fMRI and PET . . . show that music can modulate the activity in brain structures that are known to be crucially involved in emotion, such as the amygdala and nucleus accumbens (NAc).”).
new neural pathways to optimize brain function.\textsuperscript{32} NMT has the potential to treat the effects of a “stroke, traumatic brain injury, Parkinson’s and Huntington’s disease, cerebral palsy, Alzheimer’s disease, autism,”\textsuperscript{33} and possibly even addiction.\textsuperscript{34}

NMT is not widely used as an addiction response, if at all, which we assume stems from a lack of comprehensive research on this application. Because NMT research is function-based rather than population-based, research cannot specifically probe treating people with substance addiction. However, researchers could study the efficacy of NMT on specific brain functions altered by substance addiction.\textsuperscript{35} Currently, the American Psychiatric Association lists “a combination of medication and individual or group therapy”\textsuperscript{36} as the most effective treatment for addiction, even though addiction affects regions of the brain that NMT can treat—including regions that control movement, emotion, cognition, and reinforcement of rewarding behaviors.\textsuperscript{37} Although only general music therapy is currently used as an “alternative” supplementary treatment for substance addiction,\textsuperscript{38} its use suggests that the infrastructures

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\textsuperscript{33} NMT, ACAD. NEUROLOGIC MUSIC THERAPY, https://nmtacademy.co/home/clinic/ (last visited Jan. 4, 2021); see generally Maria L. Bringas, Marilyn Zaldívar, Pedro A. Rojas, Karelia Martínez-Montes, Dora M. Chongo, Maria A. Ortega, Reynaldo Galvizu, Alba E. Perez, Lilia M. Morales, Carlos Maragoto, Hector Vera, Lidice Galan, Mireille Besson & Pedro A. Valdes-Sosa, Effectiveness of Music Therapy as an Aid to Neurorestoration of Children with Severe Neurological Disorders, FRONTIERS NEUROSCIENCE, Nov. 2015, at 1, 1 (including children with autism and cerebral palsy diagnoses, inter alia, in a study of the effectiveness of music therapy “for children with severe neurological disorders”).

\textsuperscript{34} Felicity Baker, The Future of Songwriting in Music Therapy, in ENVISIONING THE FUTURE OF MUSIC THERAPY 123, 125 (Cheryl Dileo ed., 2016) (discussing the effectiveness of songwriting during various stages of drug rehabilitation); Sonia Bourdagh & Michael J. Silverman, A Neurological Rationale for Music Therapy to Address Social Connectivity Among Individuals with Substance Use Disorders, 70 ARTS PSYCHOTHERAPY, June 2020, at 1, 4, e-mail from Michael H. Thaut, Professor of Neuroscience & Rehab. Sci., Univ. of Toronto, to authors (Aug. 11, 2020, 7:58 AM EST) (on file with authors).


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necessary to expand into a more effective mode of treatment are already in place. Music therapists use creating, listening, and interacting with music to increase physical rehabilitation, motivation, and emotional support. Specifically, therapists incorporate songwriting, performance, music analysis, and more to meet patients’ specific needs, such as developing coping skills. NMT differs from general music therapy in that NMT is centered on the effect of music and rhythm on the brain and neuropathways, whereas general music therapy focuses on the manifestations of patient need, such as social connection. If addiction response plans expand to include NMT, a promising path to improved quality of life would become available to people with substance addictions, which could prevent them from coming into contact with the criminal system.

Further, this call to explore neurology for treating substance addiction is not without support from the scientific community. Sonia Bourdaghs and Michael J. Silverman developed a “neurologically informed model for how music therapy may improve treatment outcomes for people with [substance addiction] by addressing social connectivity.” Though their research did not specifically address NMT, it highlighted a neurological similarity between substance use, social connectivity, and music—and provided a basis for their neurologically informed model. University of Miami Professor Teresa Lesiuk, an MT-BC credentialed physician, proposed extending the therapeutic impact of music therapy by exploring music-based cognitive rehabilitation.

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41 Neurologic Music Therapy, supra note 32.
42 Bondurant, supra note 8. People with substance addictions are not necessarily incarcerated because they are prone to criminality—to committing inherently bad wrong acts—but because the State has intentionally criminalized their behavior. See Rahsaan Hall, District Attorneys and the Criminalization of Addiction, ACLU MASS. (July 30, 2018), https://www.aclum.org/en/publications/district-attorneys-and-criminalization-addiction (explaining how “district attorneys contribute to the criminalization of addiction under the false promise of public safety”). This is also underscored in another Essay in this Commentary Issue, which discusses the concept of “existential crime” as acts that are criminalized because they challenge racial order. Natalie P. Byfield, Blackness and Existential Crimes in the Modern Racial State, 53 CONN. L. REV. 617, 624, 633 (2021).
43 Bourdaghs & Silverman, supra note 34, at 5.
44 Id.
45 Teresa L. Lesiuk, A Rationale for Music-Based Cognitive Rehabilitation Toward Prevention of
The proposal combined techniques with specific goals for cognitive repair. Dr. Lesiuk cited music attention control training, an NMT intervention, to improve sustaining, selecting, alternating, and dividing attention. Existing research provides a promising basis for NMT as a treatment for substance addiction; if NMT researchers explore that promise, there could be an active challenge to the perceived utility of prisons and to the current structure of society.

III. NMT AS A TOOL OF DIVESTMENT

Policing, and the systems that maintain the institution, must be abolished in order to achieve lasting liberation from racial subordination. But one substantial barrier to abolishing the police is society’s cultural reliance on policing in its many forms. Many have trouble imagining a world without the police. How do we get people to stop abusing and selling harmful drugs without policing and prisons? First, policing and prisons are not effective in that goal. Abolitionists and economists alike note the ineptitude of prisons in reducing crime. Second, there are a number of activists,


46 Id. at 128.
47 Id. at 129.
48 See also Davis, supra note 21 (“Abolitionist approaches ask us to enlarge our field of vision so that rather than focusing myopically on the problematic institution and asking what needs to be changed about that institution, we raise radical questions about the organization of the larger society.”).
50 This is a facetious framing, as the “harm” of drugs has a lot to do with criminalization. See Jag Davies, 4 Reasons Why the U.S. Needs to Decriminalize Drugs - And Why We’re Closer Than You Think, DRUG POL’Y ALL.: BLOG (July 9, 2017), https://drugpolicy.org/blog/4-reasons-why-us-needs-decriminalize-drugs-and-why-were-closer-you-think (reporting that extensive empirical evidence shows that decriminalization drastically reduces addiction and overdose).
51 See Steven Belenko, Matthew Hiller & Leah Hamilton, Treating Substance Use Disorders in the Criminal Justice System, 15 CURR PSYCHIATRY REP., Nov. 2013, at 1, 2 (explaining how “a low proportion of [prisoners] who could benefit from treatment actually receive it” and that “68% of drug offenders are rearrested within 3 years of release”).
52 Don Stemen, Reconsidering Incarceration: New Directions for Reducing Crime, 19 FED. SENT. R. 221, 229 (2007) (“The most sophisticated analyses generally agree that increased incarceration rates have some effect on reducing crime, but the scope of that impact is limited: a 10 percent increase in incarceration is associated with a 2 to 4 percent drop in crime. . . . As a result, many commentators argue that the pivotal question for policymakers is not ‘does incarceration increase public safety?’ but rather, ‘is incarceration the most effective way to increase public safety?’ The emerging answer to the rephrased query is ‘no.’”); ANGELA Y. DAVIS, ARE PRISONS OBSOLETE? 9 (2003) (probing how so many people can be imprisoned in the United States without igniting major debates on the obsolescence of prisons).
organizers, and scholars already doing that very work—catalyzing the shift towards a world in which police and prisons are unimaginable. A liberated people can achieve public safety through shifting focus from punishment to healing. One supposed function of the current criminal legal system is rehabilitation. If communities directed efforts wholly towards rehabilitation, rather than using it as a pretext for retributivism, society could actually begin to reap the benefits of policy based on the higher human ideal of compassion.

Divestment from the prison system is not only important because of the racialized harms it inflicts, but also because of its ineffectiveness as a tool of rehabilitation. Sixty-five percent of people imprisoned in the United States have an active substance addiction, and the vast majority do not receive treatment. About eighty percent of people in prison who could benefit from treatment do not receive it. Almost fifteen percent of former prisoner deaths from 1999 to 2009 were opioid-related. Even the Bureau of Prisons and the World Health Organization have conceded that prisons are making America’s drug problem worse, but we have yet to overcome the carceral system’s reign over drugs because it would mean diminishing the power of an institution that maintains white supremacy.

But if incarceration does not improve substance addiction—or any other social problem, for that matter—what does? Recently, a coalition of abolitionists created a basic resource for communities, organizers, and policymakers to conceptualize society beyond the

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53 Dorothy E. Roberts, Foreword: Abolition Constitutionalism, 133 HARV. L. REV. 1, 119 (2019). See, e.g., About, MPD150, https://www.mpd150.com/about/ (last visited Aug. 14, 2020) (detailing MPD150—an “initiative challenging the narrative that police exist to protect and serve”); Da’Shaun (@DaShaunHL), TWITTER (Jan. 21, 2019, 4:30 PM), https://twitter.com/DaShaunHL/status/1087462425836834816 (“We, collectively, should be committing to thinking through ways to build new realities. Reading more on Marxism, on Black Anarcho-Feminism, and committing to showing up for our communit[ies].”).

54 Chandler, supra note 3, at 183. (“A review of recidivism in 15 states found that one-quarter of individuals released returned to prison within 3 years for technical violations that included, among other things, testing positive for drug use.”).


56 Chandler, supra note 3, at 183.

57 NAT’L INST. ON DRUG ABUSE, supra note 55, at 2.


59 See Davis, supra note 21 (explaining racism as the foundation of policing and punishment).
prison-industrial complex.\textsuperscript{60} One group has organized an eight-part demand for abolition, one part of which is for city officials to “[a]llocate city funding towards healthcare infrastructure (including non-coercive mental healthcare), wellness resources, neighborhood based trauma centers, non-coercive drug and alcohol treatment programming, peer support networks, and training for healthcare professionals.”\textsuperscript{61} NMT could be a non-coercive drug and alcohol treatment that dramatically reduces our cultural reliance on policing and prisons. Neurologic music therapy can afford people the humanity that the carceral system denies them.\textsuperscript{62} The recent demonstrations against police brutality have become a moment of reckoning. Communities in the United States can use this moment to reject the inevitable harms of a police state and begin institutionalizing practices, such as NMT, to begin the healing.

\textbf{CONCLUSION}

NMT could be the beginning of widespread acceptance of the obsolescence of policing. Amongst national calls to defund the police,\textsuperscript{63} there is game-changing neurobiology that can be used to treat an estimated one-half of people imprisoned in the United States without ever involving the police.\textsuperscript{64} With money reallocated from police and prison budgets, and the large number of MT-BC certified practitioners in the United States, scaling up research on NMT for addiction response is feasible. The origins of neurologic music therapy were based on data from research already conducted, and thus “the future shape of NMT will be dynamically driven by continued research.”\textsuperscript{65} If shown to be effective, as general music therapy has, NMT could be a widespread treatment option for non-coercive methods of care for people with substance addictions, and thus would eliminate a substantial excuse for maintaining the

\begin{itemize}
\item \textsuperscript{60} How to Use, 8TOABOLITION, https://www.8toabolition.com/authors (last visited July 29, 2020).
\item \textsuperscript{61} 8TOABOLITION, 8 TO ABOLITION: ABOLITIONIST POLICY CHANGES TO DEMAND FROM YOUR CITY OFFICIALS 4 (last visited Jan. 9, 2021).
\item \textsuperscript{62} Supra Part I.
\item \textsuperscript{64} Chandler, supra note 3, at 183. Note that an estimated one-half of the U.S. prison population meets “the criteria for diagnosis of drug abuse or dependence,” and is not necessarily incarcerated for a drug-related offense. \textit{Id}.
\item \textsuperscript{65} Thaut, supra note 27, at 4.
\end{itemize}
violently capitalist prison-industrial complex. We posit this notion while aware that disability is not the exclusive domain of medicine—that other creative projects are also necessary and important to remove the structural barriers that inform addiction. Thus ending the calculated brutality executed by police officers, prison personnel, prosecutors, and judges may not be as simple as music, but neurologic music therapy can be one part in the greater cultural project of abolition.

66 See Righting Educational Wrongs: Disability Studies in Law and Education 2 (Arlene S. Kanter & Beth A. Ferri eds., 2013) (“When disability is defined as a social category rather than as an individual characteristic, it is no longer the exclusive domain of medicine, rehabilitation, special education, physical or occupational therapy, and other profession oriented toward the cure, prevention, or treatment of disease, injury, or physical or mental impairment.”).